Clinical trial results:
A Randomized, Observer-blind, First-in-Human Phase 1/2a Study to Evaluate the Safety, Reactogenicity and Immunogenicity of Three Different Doses of VAC52416 (ExPEC10V) in Adults Aged 60 to 85 Years in Stable Health

Summary

EudraCT number	2020-000657-27
Trial protocol	FR BE NL
Global end of trial date	17 December 2024

Results information

Result version number	v1 (current)
This version publication date	01 January 2026
First version publication date	01 January 2026

Trial information

Trial identification

Sponsor protocol code	VAC52416BAC1001

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT03819049
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	Janssen Research & Development LLC
Sponsor organisation address	920 Route 202 South Raritan, New Jersey, United States, 08869
Public contact	Clinical Registry Group, Janssen Research & Development LLC, ClinicalTrialsEU@its.jnj.com
Scientific contact	Clinical Registry Group, Janssen Research & Development LLC, ClinicalTrialsEU@its.jnj.com

Notes:

Paediatric regulatory details

Is trial part of an agreed paediatric investigation plan (PIP)	No
Does article 45 of REGULATION (EC) No 1901/2006 apply to this trial?	No
Does article 46 of REGULATION (EC) No 1901/2006 apply to this trial?	No

Notes:

Results analysis stage

Analysis stage	Final
Date of interim/final analysis	17 December 2024
Is this the analysis of the primary completion data?	No

Global end of trial reached?	Yes
Global end of trial date	17 December 2024
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

To evaluate the safety and reactogenicity of different doses of ExPEC10V and to evaluate the dose-dependent immunogenicity of ExPEC10V on Day 15 in participants greater than or equal to (>=) 60 to less than or equal to (<=) 85 years of age.

Protection of trial subjects:

This study was conducted in accordance with the ethical principles that have their origin in the Declaration of Helsinki and that are consistent with Good Clinical Practices and applicable regulatory requirements.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	06 June 2019
Long term follow-up planned	Yes
Long term follow-up rationale	Scientific research
Long term follow-up duration	5 Years
Independent data monitoring committee (IDMC) involvement?	Yes

Notes:

Population of trial subjects

Subjects enrolled per country

Country: Number of subjects enrolled	Belgium: 64
Country: Number of subjects enrolled	Spain: 42
Country: Number of subjects enrolled	France: 60
Country: Number of subjects enrolled	Netherlands: 51
Country: Number of subjects enrolled	United States: 615
Worldwide total number of subjects	832
EEA total number of subjects	217

Notes:

Subjects enrolled per age group

In utero	0
Preterm newborn - gestational age < 37 wk	0
Newborns (0-27 days)	0
Infants and toddlers (28 days-23 months)	0

Children (2-11 years)	0
Adolescents (12-17 years)	0
Adults (18-64 years)	367
From 65 to 84 years	459
85 years and over	6

Subject disposition

Recruitment

Recruitment details:

Total of 832 subjects were enrolled in this study, out of which 711 subjects completed the study.

Pre-assignment

Screening details:

Total of 832 subjects were enrolled in this study, out of which 711 subjects completed the study.

Period 1

Period 1 title	Overall Study (overall period)
Is this the baseline period?	Yes
Allocation method	Randomised - controlled
Blinding used	Not blinded

Blinding implementation details:

Not blinded

Arms

Are arms mutually exclusive?	Yes
Arm title	Cohort 1: Low Dose ExPEC10V

Arm description:

Participants aged greater than or equal to (>=) 60 to less than or equal to (<=) 85 years in stable health with or without a history of urinary tract infection (UTI) received a single 0.5 milliliter (mL) intramuscular (IM) injection of ExPEC10V low dose (88 micrograms polysaccharide per milliliter [mcg PS/mL]) on Day 1.

Arm type	Experimental
Investigational medicinal product name	ExPEC10V
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection
Routes of administration	Intramuscular use

Dosage and administration details:

Participants aged greater than or equal to (>=) 60 to less than or equal to (<=) 85 years in stable health with or without a history of urinary tract infection (UTI) received a single 0.5 milliliter (mL) intramuscular (IM) injection of ExPEC10V low dose (88 micrograms polysaccharide per milliliter [mcg PS/mL]) on Day 1.

Arm title	Cohort 1: Medium Dose ExPEC10V

Arm description:

Participants aged >=60 to <= 85 years in stable health with or without a history of UTI received a single 0.5 mL IM injection of ExPEC10V medium dose (120 mcg PS/mL) on Day 1.

Arm type	Experimental
Investigational medicinal product name	ExPEC10V
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection
Routes of administration	Intramuscular use

Dosage and administration details:

Participants aged >=60 to <= 85 years in stable health with or without a history of UTI received a single 0.5 mL IM injection of ExPEC10V medium dose (120 mcg PS/mL) on Day 1.

Arm title	Cohort 1: High Dose ExPEC10V

Arm description:

Participants aged >=60 to <= 85 years in stable health with or without a history of UTI received a single 0.5 mL IM injection of ExPEC10V high dose (176 mcg PS/mL) on Day 1.

Arm type	Experimental
Investigational medicinal product name	ExPEC10V
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection
Routes of administration	Intramuscular use

Dosage and administration details:

Participants aged >=60 to <= 85 years in stable health with or without a history of UTI received a single 0.5 mL IM injection of ExPEC10V high dose (176 mcg PS/mL) on Day 1.

Arm title	Cohort 1: ExPEC4V

Arm description:

Participants aged >=60 to <= 85 years in stable health with or without a history of UTI received a single 0.5 mL IM injection of ExPEC4V 40 mcg PS/mL on Day 1.

Arm type	Experimental
Investigational medicinal product name	ExPEC4V
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection
Routes of administration	Intramuscular use

Dosage and administration details:

Participants aged >=60 to <= 85 years in stable health with or without a history of UTI received a single 0.5 mL IM injection of ExPEC4V 40 mcg PS/mL on Day 1.

Arm title	Cohort 1: Prevnar 13

Arm description:

Participants aged >=60 to <= 85 years in stable health with or without a history of UTI received a single 0.5 mL IM injection of Prevnar 13 on Day 1.

Arm type	Experimental
Investigational medicinal product name	Prevnar 13
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection
Routes of administration	Intramuscular use

Dosage and administration details:

Participants aged >=60 to <= 85 years in stable health with or without a history of UTI received a single 0.5 mL IM injection of Prevnar 13 on Day 1.

Arm title	Cohort 2: ExPEC10V High Dose

Arm description:

Participants aged >=60 years in stable health with a history of UTI received a single 0.5 mL IM injection of ExPEC10V high dose (176 mcg PS/mL) on Day 1.

Arm type	Experimental
Investigational medicinal product name	ExPEC10V
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection
Routes of administration	Intramuscular use

Dosage and administration details:

Participants aged >=60 years in stable health with a history of UTI received a single 0.5 mL IM injection of ExPEC10V high dose (176 mcg PS/mL) on Day 1.

Arm title	Cohort 2: Placebo

Arm description:

Participants aged >=60 years in stable health with a history of UTI received a single 0.5 mL IM injection of placebo (matched to ExPEC10V high dose) on Day 1.

Arm type	Experimental

Investigational medicinal product name	Placebo
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection
Routes of administration	Intramuscular use

Dosage and administration details:

Participants aged >=60 years in stable health with a history of UTI received a single 0.5 mL IM injection of placebo (matched to ExPEC10V high dose) on Day 1.

Number of subjects in period 1	Cohort 1: Low Dose ExPEC10V	Cohort 1: Medium Dose ExPEC10V	Cohort 1: High Dose ExPEC10V
Started	104	102	104
Completed	103	100	35
Not completed	1	2	69
Consent withdrawn by subject	-	-	50
Physician decision	-	-	-
Not Specified	-	-	2
Lost to follow-up	1	2	17

Number of subjects in period 1	Cohort 1: ExPEC4V	Cohort 1: Prevnar 13	Cohort 2: ExPEC10V High Dose
Started	52	54	278
Completed	52	17	268
Not completed	0	37	10
Consent withdrawn by subject	-	29	9
Physician decision	-	-	-
Not Specified	-	1	-
Lost to follow-up	-	7	1

Number of subjects in period 1	Cohort 2: Placebo
Started	138
Completed	136
Not completed	2
Consent withdrawn by subject	1
Physician decision	1
Not Specified	-
Lost to follow-up	-

Baseline characteristics

Reporting groups	
Reporting group title	Cohort 1: Low Dose ExPEC10V
Reporting group description:	
Participants aged greater than or equal to (>=) 60 to less than or equal to (<=) 85 years in stable health with or without a history of urinary tract infection (UTI) received a single 0.5 milliliter (mL) intramuscular (IM) injection of ExPEC10V low dose (88 micrograms polysaccharide per milliliter [mcg PS/mL]) on Day 1.	
Reporting group title	Cohort 1: Medium Dose ExPEC10V
Reporting group description:	
Participants aged >=60 to <= 85 years in stable health with or without a history of UTI received a single 0.5 mL IM injection of ExPEC10V medium dose (120 mcg PS/mL) on Day 1.	
Reporting group title	Cohort 1: High Dose ExPEC10V
Reporting group description:	
Participants aged >=60 to <= 85 years in stable health with or without a history of UTI received a single 0.5 mL IM injection of ExPEC10V high dose (176 mcg PS/mL) on Day 1.	
Reporting group title	Cohort 1: ExPEC4V
Reporting group description:	
Participants aged >=60 to <= 85 years in stable health with or without a history of UTI received a single 0.5 mL IM injection of ExPEC4V 40 mcg PS/mL on Day 1.	
Reporting group title	Cohort 1: Prevnar 13
Reporting group description:	
Participants aged >=60 to <= 85 years in stable health with or without a history of UTI received a single 0.5 mL IM injection of Prevnar 13 on Day 1.	
Reporting group title	Cohort 2: ExPEC10V High Dose
Reporting group description:	
Participants aged >=60 years in stable health with a history of UTI received a single 0.5 mL IM injection of ExPEC10V high dose (176 mcg PS/mL) on Day 1.	
Reporting group title	Cohort 2: Placebo
Reporting group description:	
Participants aged >=60 years in stable health with a history of UTI received a single 0.5 mL IM injection of placebo (matched to ExPEC10V high dose) on Day 1.	

Reporting group values	Cohort 1: Low Dose ExPEC10V	Cohort 1: Medium Dose ExPEC10V	Cohort 1: High Dose ExPEC10V
Number of subjects	104	102	104
Age Categorical Units: Subjects			
Age continuous Units: years			
arithmetic mean	66.2	66.4	65.1
standard deviation	± 5.77	± 5.17	± 5.15
Gender categorical Units: Subjects			
Male	45	57	39
Female	59	45	65
Age Categorical Units: Subjects			
Adults (18-64 years)	57	48	63
From 65 to 84 years	46	54	41

85 years and above	1	0	0

Reporting group values	Cohort 1: ExPEC4V	Cohort 1: Prevnar 13	Cohort 2: ExPEC10V High Dose
Number of subjects	52	54	278
Age Categorical			
Units: Subjects			
Age continuous			
Units: years			
arithmetic mean	64.8	65.9	68.7
standard deviation	± 4.56	± 5.44	± 6.16
Gender categorical			
Units: Subjects			
Male	21	26	58
Female	31	28	220
Age Categorical			
Units: Subjects			
Adults (18-64 years)	32	29	90
From 65 to 84 years	20	25	185
85 years and above	0	0	3

Reporting group values	Cohort 2: Placebo	Total	
Number of subjects	138	832	
Age Categorical			
Units: Subjects			
Age continuous			
Units: years			
arithmetic mean	69.1		
standard deviation	± 7.21	-	
Gender categorical			
Units: Subjects			
Male	27	273	
Female	111	559	
Age Categorical			
Units: Subjects			
Adults (18-64 years)	48	367	
From 65 to 84 years	88	459	
85 years and above	2	6	

End points

End points reporting groups

Reporting group title	Cohort 1: Low Dose ExPEC10V
Reporting group description:	
Participants aged greater than or equal to (>=) 60 to less than or equal to (<=) 85 years in stable health with or without a history of urinary tract infection (UTI) received a single 0.5 milliliter (mL) intramuscular (IM) injection of ExPEC10V low dose (88 micrograms polysaccharide per milliliter [mcg PS/mL]) on Day 1.	
Reporting group title	Cohort 1: Medium Dose ExPEC10V
Reporting group description:	
Participants aged >=60 to <= 85 years in stable health with or without a history of UTI received a single 0.5 mL IM injection of ExPEC10V medium dose (120 mcg PS/mL) on Day 1.	
Reporting group title	Cohort 1: High Dose ExPEC10V
Reporting group description:	
Participants aged >=60 to <= 85 years in stable health with or without a history of UTI received a single 0.5 mL IM injection of ExPEC10V high dose (176 mcg PS/mL) on Day 1.	
Reporting group title	Cohort 1: ExPEC4V
Reporting group description:	
Participants aged >=60 to <= 85 years in stable health with or without a history of UTI received a single 0.5 mL IM injection of ExPEC4V 40 mcg PS/mL on Day 1.	
Reporting group title	Cohort 1: Prevnar 13
Reporting group description:	
Participants aged >=60 to <= 85 years in stable health with or without a history of UTI received a single 0.5 mL IM injection of Prevnar 13 on Day 1.	
Reporting group title	Cohort 2: ExPEC10V High Dose
Reporting group description:	
Participants aged >=60 years in stable health with a history of UTI received a single 0.5 mL IM injection of ExPEC10V high dose (176 mcg PS/mL) on Day 1.	
Reporting group title	Cohort 2: Placebo
Reporting group description:	
Participants aged >=60 years in stable health with a history of UTI received a single 0.5 mL IM injection of placebo (matched to ExPEC10V high dose) on Day 1.	

Primary: Cohort 1: Number of Participants With Solicited Local (Injection Site) Adverse Events (AEs) for 14 Days After Vaccination on Day 1

End point title	Cohort 1: Number of Participants With Solicited Local (Injection Site) Adverse Events (AEs) for 14 Days After Vaccination on Day 1[1][2]
End point description:	
Number of participants with solicited local AEs for 14 days after vaccination on Day 1 were reported. An AE is any untoward medical occurrence in a clinical study participant administered a medicinal (investigational or non- investigational) product. An AE does not necessarily have a causal relationship with the study vaccine. Solicited local AEs were precisely defined events that participants were specifically asked about and which were noted by participants in the diary. Solicited local (injection site) AEs included injection site pain/tenderness, erythema and swelling at the study vaccine injection site, were used to assess the reactogenicity of the study vaccine and were pre-defined local (injection site). All solicited AEs at the injection site (local) were considered related to the study vaccine administration. Full analysis set (FAS) included all randomized participants with a vaccine administration documented.	
End point type	Primary
End point timeframe:	
Up to 14 days post vaccination on Day 1 (from Day 1 up to Day 15)	

Notes:

[1] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: No inferential statistics were planned. Only descriptive statistics were planned.

[2] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: The data was planned for specified baseline arms only.

End point values	Cohort 1: Low Dose ExPEC10V	Cohort 1: Medium Dose ExPEC10V	Cohort 1: High Dose ExPEC10V	Cohort 1: ExPEC4V
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	104	102	104	52
Units: Participants	46	54	60	15

End point values	Cohort 1: Prevnar 13			
Subject group type	Reporting group			
Number of subjects analysed	54			
Units: Participants	40			

Statistical analyses

No statistical analyses for this end point

Primary: Cohort 1: Number of Participants With Solicited Systemic Adverse Events (AEs) Collected for 14 Days After Vaccination on Day 1

End point title	Cohort 1: Number of Participants With Solicited Systemic Adverse Events (AEs) Collected for 14 Days After Vaccination on Day 1[3][4]

End point description:

Number of participants with solicited systemic AEs 14 days after vaccination on Day 1 were reported. An AE was any untoward medical occurrence in a clinical study administered a medicinal (investigational or non-investigational) product. An AE does not necessarily have a causal relationship with the study vaccine. Solicited systemic AEs included fatigue, headache, nausea, fever and myalgia, for which participants were specifically questioned, and which were noted by participants in their participant diary for 14 days post-vaccination (day of vaccination and the subsequent 14 days). FAS included all randomized participants with a vaccine administration documented.

End point type	Primary

End point timeframe:

Up to 14 days post vaccination on Day 1 (from Day 1 up to Day 15)

Notes:

[3] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: No inferential statistics were planned. Only descriptive statistics were planned.

[4] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: The data was planned for specified baseline arms only.

End point values	Cohort 1: Low Dose ExPEC10V	Cohort 1: Medium Dose ExPEC10V	Cohort 1: High Dose ExPEC10V	Cohort 1: ExPEC4V
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	104	102	104	52
Units: Participants	41	47	47	17

End point values	Cohort 1: Prevnar 13			
Subject group type	Reporting group			
Number of subjects analysed	54			
Units: Participants	26			

Statistical analyses

No statistical analyses for this end point

Primary: Cohort 1: Number of Participants With Serious Adverse Events (SAEs) up to Day 181

End point title	Cohort 1: Number of Participants With Serious Adverse Events (SAEs) up to Day 181[5][6]

End point description:

Number of participants with SAEs up to Day 181 were reported. An AE was any untoward medical occurrence in a clinical study administered a medicinal (investigational or non-investigational) product. An AE does not necessarily have a causal relationship with the study vaccine. An SAE is an AE resulting in any of the following outcomes or deemed significant for any other reason: death; initial or prolonged inpatient hospitalization; life-threatening experience (immediate risk of dying); persistent or significant disability/incapacity; congenital anomaly/birth defect; suspected transmission of any infectious agent via a medicinal product or medically important. FAS included all randomized participants with a vaccine administration documented.

End point type	Primary

End point timeframe:

Day 1 (post vaccination) up to Day 181

Notes:

[5] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: No inferential statistics were planned. Only descriptive statistics were planned.

[6] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: The data was planned for specified baseline arms only.

End point values	Cohort 1: Low Dose ExPEC10V	Cohort 1: Medium Dose ExPEC10V	Cohort 1: High Dose ExPEC10V	Cohort 1: ExPEC4V
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	104	102	104	52
Units: Participants	2	2	0	0

End point values	Cohort 1: Prevnar 13			
Subject group type	Reporting group			
Number of subjects analysed	54			
Units: Participants	1			

Statistical analyses

No statistical analyses for this end point

Primary: Cohort 1: Number of Participants With Unsolicited Adverse Events (AEs) up to 29 Days After Vaccination on Day 1

End point title	Cohort 1: Number of Participants With Unsolicited Adverse Events (AEs) up to 29 Days After Vaccination on Day 1[7][8]

End point description:

Number of participants with unsolicited AEs up to 29 days after vaccination on Day 1 were reported. An AE was any untoward medical occurrence in a clinical study administered a medicinal (investigational or non-investigational) product. An AE does not necessarily have a causal relationship with the study vaccine. Unsolicited AEs were all AEs for which the participant is not specifically questioned in the participant diary. FAS included all randomized participants with a vaccine administration documented.

End point type	Primary

End point timeframe:

Up to 29 days post vaccination on Day 1 (from Day 1 up to Day 30)

Notes:

[7] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: No inferential statistics were planned. Only descriptive statistics were planned.

[8] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: The data was planned for specified baseline arms only.

End point values	Cohort 1: Low Dose ExPEC10V	Cohort 1: Medium Dose ExPEC10V	Cohort 1: High Dose ExPEC10V	Cohort 1: ExPEC4V
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	104	102	104	52
Units: Participants	25	21	23	9

End point values	Cohort 1: Prevnar 13			
Subject group type	Reporting group			
Number of subjects analysed	54			
Units: Participants	15			

Statistical analyses

No statistical analyses for this end point

Primary: Cohort 2: Number of Participants With Solicited Local (Injection Site) Adverse Events (AEs) Collected for 14 Days After Vaccination on Day 1

End point title	Cohort 2: Number of Participants With Solicited Local (Injection Site) Adverse Events (AEs) Collected for 14 Days After Vaccination on Day 1[9][10]

End point description:

Number of participants with solicited local AEs for 14 days after vaccination on Day 1 were reported. An AE is any untoward medical occurrence in a clinical study participant administered a medicinal (investigational or non- investigational) product. An AE does not necessarily have a causal relationship with the study vaccine. Solicited local AEs were precisely defined events that participants were specifically asked about and which were noted by participants in the diary. Solicited local (injection site) AEs included injection site pain/tenderness, erythema and swelling at the study vaccine injection site, were used to assess the reactogenicity of the study vaccine and were pre-defined local (injection site). All solicited AEs at the injection site (local) were considered related to the study vaccine administration. FAS included all randomized participants with a vaccine administration documented.

End point type	Primary

End point timeframe:

Up to 14 days post vaccination on Day 1 (from Day 1 up to Day 15)

Notes:

[9] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: No inferential statistics were planned. Only descriptive statistics were planned.

[10] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: The data was planned for specified baseline arms only.

End point values	Cohort 2: ExPEC10V High Dose	Cohort 2: Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	278	138		
Units: Participants	139	22		

Statistical analyses

No statistical analyses for this end point

Primary: Cohort 2: Number of Participants With Solicited Systemic Adverse Events (AEs) Collected for 14 Days After Vaccination on Day 1

End point title	Cohort 2: Number of Participants With Solicited Systemic Adverse Events (AEs) Collected for 14 Days After Vaccination on Day 1[11][12]

End point description:

Number of participants with solicited systemic AEs 14 days after vaccination on Day 1 were reported. An AE was any untoward medical occurrence in a clinical study administered a medicinal (investigational or non-investigational) product. An AE does not necessarily have a causal relationship with the study vaccine. Solicited systemic AEs included fatigue, headache, nausea, fever and myalgia, for which participants were specifically questioned, and which were noted by participants in their participant diary for 14 days post-vaccination (day of vaccination and the subsequent 14 days). FAS included all randomized participants with a vaccine administration documented.

End point type	Primary

End point timeframe:

Up to 14 days post vaccination on Day 1 (from Day 1 up to Day 15)

Notes:

[11] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: No inferential statistics were planned. Only descriptive statistics were planned.

[12] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: The data was planned for specified baseline arms only.

End point values	Cohort 2: ExPEC10V High Dose	Cohort 2: Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	278	138		
Units: Participants	139	53		

Statistical analyses

No statistical analyses for this end point

Primary: Cohort 2: Number of Participants With Unsolicited Adverse Events (AEs) 29 Days After Vaccination on Day 1

End point title	Cohort 2: Number of Participants With Unsolicited Adverse Events (AEs) 29 Days After Vaccination on Day 1[13][14]

End point description:

Number of participants with unsolicited AEs up to 29 days after vaccination on Day 1 were reported. An AE was any untoward medical occurrence in a clinical study administered a medicinal (investigational or non-investigational) product. An AE does not necessarily have a causal relationship with the study vaccine. Unsolicited AEs were all AEs for which the participant is not specifically questioned in the participant diary. FAS included all randomized participants with a vaccine administration documented.

End point type	Primary

End point timeframe:

Up to 29 days post vaccination on Day 1 (from Day 1 up to Day 30)

Notes:

[13] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: No inferential statistics were planned. Only descriptive statistics were planned.

[14] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: The data was planned for specified baseline arms only.

End point values	Cohort 2: ExPEC10V High Dose	Cohort 2: Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	278	138		
Units: Participants	79	36		

Statistical analyses

No statistical analyses for this end point

Primary: Cohort 2: Number of Participants With Serious Adverse Events (SAEs) up to Day 181

End point title	Cohort 2: Number of Participants With Serious Adverse Events (SAEs) up to Day 181[15][16]

End point description:

Number of participants with SAEs up to Day 181 were reported. An AE was any untoward medical occurrence in a clinical study administered a medicinal (investigational or non-investigational) product. An AE does not necessarily have a causal relationship with the study vaccine. An SAE is an AE resulting in any of the following outcomes or deemed significant for any other reason: death; initial or prolonged inpatient hospitalization; life-threatening experience (immediate risk of dying); persistent or significant disability/incapacity; congenital anomaly/birth defect; suspected transmission of any infectious agent via a medicinal product or medically important. FAS included all randomized participants with a vaccine administration documented.

End point type	Primary

End point timeframe:

Day 1 (post vaccination) up to Day 181

Notes:

[15] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: No inferential statistics were planned. Only descriptive statistics were planned.

[16] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: The data was planned for specified baseline arms only.

End point values	Cohort 2: ExPEC10V High Dose	Cohort 2: Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	278	138		
Units: Participants	9	6		

Statistical analyses

No statistical analyses for this end point

Primary: Cohort 1: Geometric Mean Titers (GMTs) of Serotype-specific Total Immunoglobulin G (IgG) Serum Antibodies as Measured by Multiplex Electrochemiluminescent (ECL) Based Immunoassay on Day 15

End point title	Cohort 1: Geometric Mean Titers (GMTs) of Serotype-specific Total Immunoglobulin G (IgG) Serum Antibodies as Measured by Multiplex Electrochemiluminescent (ECL) Based Immunoassay on Day 15[17][18]

End point description:

GMTs of serotype-specific total IgG serum antibodies as measured by multiplex ECL based immunoassay were reported. GMTs for each antigen serotypes O1A, O2, O4, O6A, O8, O15, O16, O18A, O25B, O75 and exotoxin protein A (EPA) were determined in serum from collected blood samples. Per-protocol immunogenicity (PPI) analysis set: all randomized and vaccinated participants, for whom immunogenicity data were available excluding participants with major protocol deviations expected to impact the immunogenicity outcomes. Here, "N" (Number of participants analyzed) signifies participants evaluable for this endpoint and "n" signifies those participants who were evaluable at specified categories. Here, "9999" signifies that geometric mean and lower limit of 95% CI could not be estimated as the value was below lower limit of quantification (LLOQ) that is for O1A: 69149, O2: 65287, O4: 67356, O6A: 150748, O8: 72196, O15: 66910, O16: 71586, O18A: 70519, O25B: 61990, O75: 133019, and EPA: 66165.

End point type	Primary

End point timeframe:

Day 15

Notes:

[17] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: No inferential statistics were planned. Only descriptive statistics were planned.

[18] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: The data was planned for specified baseline arms only.

End point values	Cohort 1: Low Dose ExPEC10V	Cohort 1: Medium Dose ExPEC10V	Cohort 1: High Dose ExPEC10V	Cohort 1: ExPEC4V
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	101	98	100	48
Units: Titer				
geometric mean (confidence interval 95%)				
Serotype O1A (n=101, 98, 100, 48, 51)	5350535.1 (4644976.0 to 6163266.7)	6358232.9 (5664895.6 to 7136429.1)	6421446.5 (5730738.4 to 7195403.5)	6930697.9 (5823442.2 to 8248484.7)
Serotype O2 (n=101, 98, 100, 48, 51)	4873016.8 (4116237.9 to 5768931.0)	4787891.5 (4034593.8 to 5681837.2)	6537864.9 (5861510.6 to 7292263.1)	6196015.3 (4955643.7 to 7746845.5)
Serotype O4 (n=101, 98, 100, 48, 51)	2906299.6 (2339299.2 to 3610729.8)	2778764.0 (2281609.7 to 3384246.4)	4140729.8 (3480255.9 to 4926546.7)	503269.8 (409184.0 to 618989.3)
Serotype O6A (n=101, 98, 100, 48, 51)	4349111.4 (3780753.5 to 5002910.0)	5150333.2 (4384440.1 to 6050015.8)	5834052.6 (5130881.4 to 6633591.3)	5051389.0 (4030377.7 to 6331051.9)
Serotype O8 (n=101, 98, 100, 48, 51)	5082460.4 (4435261.0 to 5824100.0)	5605655.1 (4917150.4 to 6390564.9)	6071895.4 (5414031.1 to 6809697.4)	1738652.7 (1408103.9 to 2146796.9)
Serotype O15 (n=101, 98, 100, 48, 51)	5151217.3 (4393448.3 to 6039684.0)	4635317.8 (3976055.4 to 5403891.3)	5414798.2 (4732722.1 to 6195174.6)	898897.3 (694569.8 to 1163333.7)
Serotype O16 (n=101, 98, 100, 48, 51)	4298055.1 (3664533.7 to 5041099.1)	3972656.6 (3378225.9 to 4671682.9)	5675420.6 (4957603.9 to 6497170.6)	759403.5 (619027.4 to 931612.4)
Serotype O18A (n=101, 98, 100, 48, 51)	3532498.2 (2965791.1 to 4207492.4)	3585987.4 (3008355.6 to 4274529.8)	4522807.6 (3883477.9 to 5267388.9)	1015034.0 (840693.0 to 1225529.4)
Serotype O25B (n=101, 98, 99, 48, 51)	1426991.8 (1113308.2 to 1829058.4)	2265970.3 (1766736.9 to 2906273.8)	2044257.9 (1617260.1 to 2583994.0)	2174362.2 (1533603.8 to 3082837.4)
Serotype O75 (n=101, 98, 100, 48, 51)	2932034.9 (2454267.7 to 3502807.9)	3107132.4 (2627869.3 to 3673802.2)	3963138.0 (3450884.5 to 4551430.9)	1336846.1 (1060936.4 to 1684509.5)
Serotype EPA (n=101, 98, 100, 48, 51)	1170226.6 (829684.5 to 1650543.4)	1496999.3 (1016330.1 to 2204999.2)	1542536.8 (1099718.5 to 2163662.7)	1448761.2 (868026.8 to 2418023.4)

End point values	Cohort 1: Prevnar 13			
Subject group type	Reporting group			
Number of subjects analysed	51			

Units: Titer				
geometric mean (confidence interval 95%)				
Serotype O1A (n=101, 98, 100, 48, 51)	1606747.3 (1205014.3 to 2142411.9)			
Serotype O2 (n=101, 98, 100, 48, 51)	447845.4 (343614.9 to 583692.7)			
Serotype O4 (n=101, 98, 100, 48, 51)	545556.7 (415552.0 to 716233.0)			
Serotype O6A (n=101, 98, 100, 48, 51)	984170.4 (805275.1 to 1202807.9)			
Serotype O8 (n=101, 98, 100, 48, 51)	1391481.0 (1093370.5 to 1770872.3)			
Serotype O15 (n=101, 98, 100, 48, 51)	1202517.7 (893109.0 to 1619118.0)			
Serotype O16 (n=101, 98, 100, 48, 51)	732969.6 (586564.3 to 915917.3)			
Serotype O18A (n=101, 98, 100, 48, 51)	1100583.1 (846592.3 to 1430775.0)			
Serotype O25B (n=101, 98, 99, 48, 51)	267879.1 (204166.3 to 351474.3)			
Serotype O75 (n=101, 98, 100, 48, 51)	1363797.1 (1041800.4 to 1785315.7)			
Serotype EPA (n=101, 98, 100, 48, 51)	9999 (-9999 to 74582.5)			

Statistical analyses

No statistical analyses for this end point

Primary: Cohort 1: Geometric Mean Ratio (GMR) of Fold Changes From Baseline for Serotype Specific Antibodies as Measured by Multiplex ECL Based Immunoassay on Day 15

End point title	Cohort 1: Geometric Mean Ratio (GMR) of Fold Changes From Baseline for Serotype Specific Antibodies as Measured by Multiplex ECL Based Immunoassay on Day 15[19][20]

End point description:

GMR of fold changes from baseline for serotype specific antibodies as measured by multiplex ECL based immunoassay on Day 15 were reported. GMR for each antigen serotypes O1A, O2, O4, O6A, O8, O15, O16, O18A, O25B, O75 and EPA were determined in serum from collected blood samples by multiplex ECL based immunoassay. GMR of fold change from baseline was calculated as the ratio of GMTs on Day 15 and pre-vaccination (on Day 1). PPI analysis set included all randomized and vaccinated participants, for whom immunogenicity data were available excluding participants with major protocol deviations expected to impact the immunogenicity outcomes. Here, "N" (Number of participants analyzed) signifies participants evaluable for this endpoint and "n" signifies those participants who were evaluable at specified categories.

End point type	Primary

End point timeframe:

Baseline (Day 1, pre-vaccination) and Day 15

Notes:

[19] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: No inferential statistics were planned. Only descriptive statistics were planned.

[20] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: The data was planned for specified baseline arms only.

End point values	Cohort 1: Low Dose ExPEC10V	Cohort 1: Medium Dose ExPEC10V	Cohort 1: High Dose ExPEC10V	Cohort 1: ExPEC4V
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	101	98	100	48
Units: Ratio				
geometric mean (confidence interval 95%)				
Serotype O1A (n=101, 98, 100, 48, 51)	4.41 (3.690 to 5.259)	5.33 (4.429 to 6.406)	5.26 (4.381 to 6.323)	6.00 (4.472 to 8.061)
Serotype O2 (n=101, 98, 100, 48, 51)	9.54 (8.014 to 11.360)	10.05 (8.374 to 12.056)	12.31 (10.564 to 14.334)	12.80 (9.343 to 17.530)
Serotype O4 (n=101, 98, 100, 48, 51)	6.28 (5.103 to 7.718)	5.49 (4.528 to 6.656)	9.17 (7.610 to 11.054)	1.06 (1.005 to 1.127)
Serotype O6A (n=101, 98, 100, 48, 51)	3.55 (3.039 to 4.141)	4.48 (3.731 to 5.389)	5.11 (4.408 to 5.918)	4.31 (3.336 to 5.576)
Serotype O8 (n=101, 98, 100, 48, 51)	3.34 (2.892 to 3.855)	3.27 (2.791 to 3.826)	3.90 (3.362 to 4.534)	1.07 (1.033 to 1.116)
Serotype O15 (n=101, 98, 100, 48, 51)	5.94 (4.966 to 7.104)	5.32 (4.468 to 6.339)	6.20 (5.248 to 7.329)	1.01 (0.971 to 1.055)
Serotype O16 (n=101, 98, 100, 48, 51)	5.04 (4.300 to 5.912)	4.59 (3.822 to 5.502)	7.02 (5.904 to 8.342)	1.11 (0.987 to 1.254)
Serotype O18A (n=101, 98, 100, 48, 51)	3.79 (3.220 to 4.456)	3.64 (3.043 to 4.344)	4.84 (4.132 to 5.675)	1.04 (0.995 to 1.087)
Serotype O25B (n=101, 98, 99, 48, 51)	5.80 (4.761 to 7.071)	9.51 (7.463 to 12.126)	8.24 (6.529 to 10.394)	11.02 (7.889 to 15.388)
Serotype O75 (n=101, 98, 100, 48, 51)	2.33 (2.013 to 2.701)	2.38 (2.055 to 2.756)	3.06 (2.622 to 3.563)	1.14 (1.026 to 1.274)
Serotype EPA (n=101, 98, 100, 48, 51)	11.31 (8.612 to 14.864)	12.31 (9.112 to 16.622)	11.84 (9.010 to 15.55)	12.68 (8.282 to 19.426)

End point values	Cohort 1: Prevnar 13			
Subject group type	Reporting group			
Number of subjects analysed	51			
Units: Ratio				
geometric mean (confidence interval 95%)				
Serotype O1A (n=101, 98, 100, 48, 51)	1.26 (1.086 to 1.452)			
Serotype O2 (n=101, 98, 100, 48, 51)	1.01 (0.953 to 1.064)			
Serotype O4 (n=101, 98, 100, 48, 51)	1.27 (1.081 to 1.491)			
Serotype O6A (n=101, 98, 100, 48, 51)	1.04 (0.990 to 1.088)			
Serotype O8 (n=101, 98, 100, 48, 51)	1.06 (0.999 to 1.128)			

Serotype O15 (n=101, 98, 100, 48, 51)	1.46 (1.223 to 1.753)			
Serotype O16 (n=101, 98, 100, 48, 51)	1.08 (1.010 to 1.155)			
Serotype O18A (n=101, 98, 100, 48, 51)	1.13 (1.027 to 1.241)			
Serotype O25B (n=101, 98, 99, 48, 51)	1.02 (0.932 to 1.127)			
Serotype O75 (n=101, 98, 100, 48, 51)	1.03 (0.945 to 1.131)			
Serotype EPA (n=101, 98, 100, 48, 51)	0.99 (0.968 to 1.010)			

Statistical analyses

No statistical analyses for this end point

Primary: Cohort 1: Percentage of Participants With a Greater Than or Equal to (>=) 2-Fold and >=4-Fold Increase From Baseline in Serotype Specific Serum Antibody Titers as Measured by Multiplex ECL Based Immunoassay on Day 15

End point title	Cohort 1: Percentage of Participants With a Greater Than or Equal to (>=) 2-Fold and >=4-Fold Increase From Baseline in Serotype Specific Serum Antibody Titers as Measured by Multiplex ECL Based Immunoassay on Day 15[21][22]

End point description:

Percentage of participants with a >=2-fold and >=4-fold increase (FI) from baseline in serotype specific serum antibody titers as measured by multiplex ECL based immunoassay on Day 15 was reported. The fold (>=2-fold and >=4-fold) increase from baseline to Day 15 for the serotypes O1A, O2, O4, O6A, O8, O15, O16, O18A, O25B, O75 and EPA was calculated as the ratio of titer values of serum antibody on Day 15 and pre-vaccination (on day 1) that is Day 15/Day 1. PPI analysis set included all randomized and vaccinated participants, for whom immunogenicity data were available excluding participants with major protocol deviations expected to impact the immunogenicity outcomes. Here, "N" (Number of participants analyzed) signifies participants evaluable for this endpoint and "n" signifies those participants who were evaluable at specified categories.

End point type	Primary

End point timeframe:

Baseline (Day 1, pre-vaccination) and Day 15

Notes:

[21] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: No inferential statistics were planned. Only descriptive statistics were planned.

[22] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: The data was planned for specified baseline arms only.

End point values	Cohort 1: Low Dose ExPEC10V	Cohort 1: Medium Dose ExPEC10V	Cohort 1: High Dose ExPEC10V	Cohort 1: ExPEC4V
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	101	98	100	48
Units: Percentage of participants				
number (confidence interval 95%)				
Serotype O1A: >= 2 FI (n =101, 98, 100, 48, 51)	78.2 (68.90 to 85.82)	84.7 (76.01 to 91.17)	82.0 (73.05 to 88.97)	81.3 (67.37 to 91.05)
Serotype O1A: >= 4 FI (n =101, 98, 100, 48, 51)	56.4 (46.20 to 66.28)	62.2 (51.88 to 71.84)	65.0 (54.82 to 74.27)	66.7 (51.59 to 79.60)

Serotype O2: >= 2 FI (n =101, 98, 100, 48, 51)	93.1 (86.24 to 97.17)	93.9 (87.15 to 97.72)	99.0 (94.5 to 99.97)	89.6 (77.34 to 96.53)
Serotype O2: >= 4 FI (n =101, 98, 100, 48, 51)	83.2 (74.42 to 89.88)	83.7 (74.84 to 90.37)	92.0 (84.84 to 96.48)	81.3 (67.37 to 91.05)
Serotype O4: >= 2 FI (n =101, 98, 100, 48, 51)	77.2 (67.82 to 84.98)	81.6 (72.53 to 88.74)	91.0 (83.60 to 95.80)	2.1 (0.05 to 11.07)
Serotype O4: >= 4 FI (n =101, 98, 100, 48, 51)	64.4 (54.21 to 73.64)	63.3 (52.93 to 72.78)	80.0 (70.82 to 87.33)	0.0 (0.00 to 7.40)
Serotype O6A: >= 2 FI (n =101, 98, 100, 48, 51)	72.3 (62.48 to 80.72)	77.6 (68.01 to 85.36)	86.0 (77.63 to 92.13)	77.1 (62.69 to 87.97)
Serotype O6A: >= 4 FI (n =101, 98, 100, 48, 51)	42.6 (32.79 to 52.81)	53.1 (42.71 to 63.22)	66.0 (55.85 to 75.18)	52.1 (37.19 to 66.71)
Serotype O8: >= 2 FI (n =101, 98, 100, 48, 51)	73.3 (63.54 to 81.59)	73.5 (63.59 to 81.88)	74.0 (64.27 to 82.26)	0.0 (0.00 to 7.40)
Serotype O8: >= 4 FI (n =101, 98, 100, 48, 51)	41.6 (31.86 to 51.82)	38.8 (29.10 to 49.15)	51.0 (40.80 to 61.14)	0.0 (0.00 to 7.40)
Serotype O15: >= 2 FI (n =101, 98, 100, 48, 51)	88.1 (80.17 to 93.71)	82.7 (73.69 to 89.56)	87.0 (78.80 to 92.89)	0.0 (0.00 to 7.40)
Serotype O15: >= 4 FI (n =101, 98, 100, 48, 51)	61.4 (51.18 to 70.91)	63.3 (52.93 to 72.78)	68.0 (57.92 to 76.98)	0.0 (0.00 to 7.40)
Serotype O16: >= 2 FI (n =101, 98, 100, 48, 51)	86.1 (77.84 to 92.21)	77.6 (68.01 to 85.36)	88.0 (79.98 to 93.64)	2.1 (0.05 to 11.07)
Serotype O16: >= 4 FI (n =101, 98, 100, 48, 51)	63.4 (53.19 to 72.73)	57.1 (46.75 to 67.10)	73.0 (63.20 to 81.39)	2.1 (0.05 to 11.07)
Serotype O18A: >= 2 FI (n =101, 98, 100, 48, 51)	72.3 (62.48 to 80.72)	71.4 (61.42 to 80.10)	84.0 (75.32 to 90.57)	0.0 (0.00 to 7.40)
Serotype O18A: >= 4 FI (n =101, 98, 100, 48, 51)	48.5 (38.45 to 58.67)	41.8 (31.95 to 52.23)	61.0 (50.73 to 70.60)	0.0 (0.00 to 7.40)
Serotype O25B: >= 2 FI (n =101, 98, 99, 48, 51)	82.2 (73.30 to 89.08)	87.8 (79.59 to 93.51)	84.8 (76.24 to 91.26)	87.5 (74.75 to 95.27)
Serotype O25B: >= 4 FI (n =101, 98, 99, 48, 51)	58.4 (48.18 to 68.14)	75.5 (65.79 to 83.64)	69.7 (59.65 to 78.53)	79.2 (65.01 to 89.53)
Serotype O75: >= 2 FI (n =101, 98, 100, 48, 51)	50.5 (40.36 to 60.60)	49.0 (38.74 to 59.28)	68.0 (57.92 to 76.98)	6.3 (1.31 to 17.20)
Serotype O75: >= 4 FI (n =101, 98, 100, 48, 51)	20.8 (13.36 to 30.01)	25.5 (17.24 to 35.31)	33.0 (23.92 to 43.12)	4.2 (0.51 to 14.25)
Serotype EPA: >= 2 FI (n =101, 98, 100, 48, 51)	87.1 (79.00 to 92.96)	83.7 (74.84 to 90.37)	85.0 (76.47 to 91.35)	81.3 (67.37 to 91.05)
Serotype EPA: >= 4 FI (n =101, 98, 100, 48, 51)	74.3 (64.60 to 82.44)	74.5 (64.69 to 82.76)	77.0 (67.51 to 84.83)	72.9 (58.15 to 84.72)

End point values	Cohort 1: Prevnar 13			
Subject group type	Reporting group			
Number of subjects analysed	51			
Units: Percentage of participants				
number (confidence interval 95%)				
Serotype O1A: >= 2 FI (n =101, 98, 100, 48, 51)	9.8 (3.26 to 21.41)			
Serotype O1A: >= 4 FI (n =101, 98, 100, 48, 51)	5.9 (1.23 to 16.24)			
Serotype O2: >= 2 FI (n =101, 98, 100, 48, 51)	0.0 (0.00 to 6.98)			
Serotype O2: >= 4 FI (n =101, 98, 100, 48, 51)	0.0 (0.00 to 6.98)			
Serotype O4: >= 2 FI (n =101, 98, 100, 48, 51)	9.8 (3.26 to 21.41)			

Serotype O4: >= 4 FI (n =101, 98, 100, 48, 51)	3.9 (0.48 to 13.46)			
Serotype O6A: >= 2 FI (n =101, 98, 100, 48, 51)	0.0 (0.00 to 6.98)			
Serotype O6A: >= 4 FI (n =101, 98, 100, 48, 51)	0.0 (0.00 to 6.98)			
Serotype O8: >= 2 FI (n =101, 98, 100, 48, 51)	3.9 (0.48 to 13.46)			
Serotype O8: >= 4 FI (n =101, 98, 100, 48, 51)	0.0 (0.00 to 6.98)			
Serotype O15: >= 2 FI (n =101, 98, 100, 48, 51)	21.6 (11.29 to 35.32)			
Serotype O15: >= 4 FI (n =101, 98, 100, 48, 51)	9.8 (3.26 to 21.41)			
Serotype O16: >= 2 FI (n =101, 98, 100, 48, 51)	2.0 (0.05 to 10.45)			
Serotype O16: >= 4 FI (n =101, 98, 100, 48, 51)	0.0 (0.00 to 6.98)			
Serotype O18A: >= 2 FI (n =101, 98, 100, 48, 51)	3.9 (0.48 to 13.46)			
Serotype O18A: >= 4 FI (n =101, 98, 100, 48, 51)	2.0 (0.05 to 10.45)			
Serotype O25B: >= 2 FI (n =101, 98, 99, 48, 51)	3.9 (0.48 to 13.46)			
Serotype O25B: >= 4 FI (n =101, 98, 99, 48, 51)	2.0 (0.05 to 10.45)			
Serotype O75: >= 2 FI (n =101, 98, 100, 48, 51)	2.0 (0.05 to 10.45)			
Serotype O75: >= 4 FI (n =101, 98, 100, 48, 51)	2.0 (0.05 to 10.45)			
Serotype EPA: >= 2 FI (n =101, 98, 100, 48, 51)	0.0 (0.00 to 6.98)			
Serotype EPA: >= 4 FI (n =101, 98, 100, 48, 51)	0.0 (0.00 to 6.98)			

Statistical analyses

No statistical analyses for this end point

Primary: Cohort 1: Geometric Mean Titers (GMT) of Serotype-specific Total Immunoglobulin G (IgG) Serum Antibodies as Measured by Multiplex Opsonophagocytic Assay (MOPA) on Day 15

End point title	Cohort 1: Geometric Mean Titers (GMT) of Serotype-specific Total Immunoglobulin G (IgG) Serum Antibodies as Measured by Multiplex Opsonophagocytic Assay (MOPA) on Day 15[23][24]

End point description:

GMTs of serotype-specific total IgG serum antibodies as measured by MOPA were reported. GMTs for each antigen serotypes O1A, O2, O4, O6A, O8, O15, O16, O18A, O25B and O75 were determined in serum from collected blood samples. PPI analysis set included all randomized and vaccinated participants, for whom immunogenicity data were available excluding participants with major protocol deviations expected to impact the immunogenicity outcomes. Here, "N" (Number of participants analyzed) signifies participants evaluable for this endpoint and "n" signifies those participants who were evaluable at specified categories. Here, 99999 indicated that geometric mean, lower and upper limit of 95% CI could not be estimated as the value was below the LLOQ and 9.9999 indicated that geometric mean and lower limit of 95% CI could not be estimated as the value was below the LLOQ. LLOQ values were: O1A: 53, O2: 51, O4: 29, O6A: 47, O8: 196, O15: 37, O16: 54, O18A: 12, O25B: 65, and O75: 37.

End point type	Primary

End point timeframe:

Day 15

Notes:

[23] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: No inferential statistics were planned. Only descriptive statistics were planned.

[24] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: The data was planned for specified baseline arms only.

End point values	Cohort 1: Low Dose ExPEC10V	Cohort 1: Medium Dose ExPEC10V	Cohort 1: High Dose ExPEC10V	Cohort 1: ExPEC4V
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	100	98	100	48
Units: Titer				
geometric mean (confidence interval 95%)				
Serotype O1A (n =101, 98, 100, 48, 51)	654.3 (512.4 to 835.4)	764.2 (590.3 to 989.5)	1129.5 (842.3 to 1514.7)	1377.3 (851.8 to 2227.0)
Serotype O2 (n =101, 98, 100, 48, 51)	5538.4 (3884.7 to 7896.2)	5359.8 (3689.3 to 7786.7)	12473.2 (9082.9 to 17129.0)	9629.4 (5960.7 to 15555.9)
Serotype O4 (n =101, 98, 100, 48, 51)	376.3 (278.6 to 508.2)	322.9 (239.7 to 434.9)	505.7 (374.6 to 682.5)	102.9 (74.1 to 142.8)
Serotype O6A (n =101, 98, 100, 48, 51)	1495.9 (1133.1 to 1974.8)	2256.5 (1725.5 to 2951.0)	2217.2 (1690.8 to 2907.6)	2009.8 (1344.6 to 3004.0)
Serotype O8 (n =101, 98, 100, 48, 51)	1249.2 (979.3 to 1593.5)	921.5 (702.3 to 1209.1)	1037.6 (809.7 to 1329.6)	712.9 (527.1 to 964.3)
Serotype O15 (n =101, 98, 100, 48, 51)	3095.1 (2194.3 to 4365.6)	3018.4 (2093.9 to 4351.1)	3658.5 (2528.2 to 5294.1)	650.2 (431.5 to 979.8)
Serotype O16 (n =101, 98, 100, 48, 51)	1532.2 (1092.6 to 2148.8)	1172.2 (822.4 to 1670.8)	1853.8 (1353.2 to 2539.6)	216.2 (147.0 to 317.9)
Serotype O18A (n =101, 98, 100, 48, 51)	274.7 (202.2 to 373.2)	276.2 (205.0 to 372.0)	338.2 (245.3 to 466.3)	65.7 (44.6 to 96.9)
Serotype O25B (n =101, 98, 99, 48, 51)	415.5 (318.4 to 542.3)	489.5 (373.3 to 641.9)	403.7 (312.4 to 521.6)	382.7 (268.7 to 545.0)
Serotype O75 (n =101, 98, 100, 48, 51)	84.0 (65.8 to 107.1)	58.0 (46.5 to 72.3)	91.7 (66.5 to 126.5)	99999 (-99999 to 99999)

End point values	Cohort 1: Prevnar 13			
Subject group type	Reporting group			
Number of subjects analysed	51			
Units: Titer				
geometric mean (confidence interval 95%)				
Serotype O1A (n =101, 98, 100, 48, 51)	244.6 (177.9 to 336.1)			
Serotype O2 (n =101, 98, 100, 48, 51)	363.5 (274.0 to 482.3)			
Serotype O4 (n =101, 98, 100, 48, 51)	102.5 (79.3 to 132.5)			

Serotype O6A (n =101, 98, 100, 48, 51)	720.7 (513.8 to 1010.9)			
Serotype O8 (n =101, 98, 100, 48, 51)	931.3 (720.7 to 1203.4)			
Serotype O15 (n =101, 98, 100, 48, 51)	831.9 (542.2 to 1276.2)			
Serotype O16 (n =101, 98, 100, 48, 51)	176.9 (134.4 to 232.9)			
Serotype O18A (n =101, 98, 100, 48, 51)	62.2 (42.3 to 91.6)			
Serotype O25B (n =101, 98, 99, 48, 51)	265.4 (173.1 to 406.8)			
Serotype O75 (n =101, 98, 100, 48, 51)	9.9999 (-9.9999 to 45.3)			

Statistical analyses

No statistical analyses for this end point

Primary: Cohort 1: Geometric Mean Ratio (GMR) of Fold Changes From Baseline for Serotype Specific Antibodies as Measured by MOPA on Day 15

End point title	Cohort 1: Geometric Mean Ratio (GMR) of Fold Changes From Baseline for Serotype Specific Antibodies as Measured by MOPA on Day 15[25][26]

End point description:

GMR of fold changes from baseline for serotype specific antibodies as measured by MOPA on Day 15 were reported. GMR for each antigen serotypes O1A, O2, O4, O6A, O8, O15, O16, O18A, O25B and O75 were determined in serum from collected blood samples by MOPA. GMR of fold change from baseline was calculated as the ratio of GMTs on Day 15 and pre-vaccination (on Day 1). PPI analysis set included all randomized and vaccinated participants, for whom immunogenicity data were available excluding participants with major protocol deviations expected to impact the immunogenicity outcomes. Here, "N" (Number of participants analyzed) signifies participants evaluable for this endpoint and "n" signifies those participants who were evaluable at specified categories.

End point type	Primary

End point timeframe:

Baseline (Day 1, pre-vaccination), Day 15

Notes:

[25] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: No inferential statistics were planned. Only descriptive statistics were planned.

[26] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: The data was planned for specified baseline arms only.

End point values	Cohort 1: Low Dose ExPEC10V	Cohort 1: Medium Dose ExPEC10V	Cohort 1: High Dose ExPEC10V	Cohort 1: ExPEC4V
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	101	98	100	48
Units: Ratio				
geometric mean (confidence interval 95%)				
Serotype O1A (n =101, 98, 100, 48, 51)	2.67 (2.103 to 3.389)	4.29 (3.372 to 5.469)	6.14 (4.546 to 8.287)	5.34 (3.533 to 8.059)

Serotype O2 (n =101, 98, 100, 48, 51)	14.39 (10.285 to 20.126)	17.78 (12.567 to 25.168)	30.19 (22.504 to 40.490)	22.96 (13.310 to 39.589)
Serotype O4 (n =101, 98, 100, 48, 51)	3.25 (2.489 to 4.240)	3.47 (2.723 to 4.420)	5.47 (4.169 to 7.178)	0.98 (0.852 to 1.127)
Serotype O6A (n =101, 98, 100, 48, 51)	2.30 (1.859 to 2.858)	3.72 (2.740 to 5.046)	3.54 (2.782 to 4.510)	4.30 (2.840 to 6.514)
Serotype O8 (n =101, 98, 100, 48, 51)	1.26 (1.078 to 1.468)	1.22 (1.107 to 1.339)	1.15 (0.995 to 1.324)	0.97 (0.801 to 1.170)
Serotype O15 (n =100, 97, 100, 48, 50)	4.91 (3.498 to 6.884)	6.29 (4.285 to 9.247)	6.87 (4.732 to 9.980)	0.95 (0.695 to 1.289)
Serotype O16 (n =101, 98, 100, 48, 51)	6.58 (4.806 to 9.018)	5.86 (4.051 to 8.485)	10.18 (7.527 to 13.755)	0.94 (0.795 to 1.113)
Serotype O18A (n =101, 98, 100, 48, 51)	4.05 (3.148 to 5.204)	4.27 (3.192 to 5.721)	6.20 (4.645 to 8.279)	1.03 (0.869 to 1.217)
Serotype O25B (n =101, 98, 99, 48, 51)	2.34 (1.883 to 2.903)	2.77 (2.155 to 3.557)	2.51 (2.033 to 3.096)	2.48 (1.830 to 3.367)
Serotype O75 (n =101, 98, 100, 48, 51)	1.92 (1.600 to 2.299)	1.69 (1.440 to 1.991)	2.58 (1.981 to 3.355)	0.97 (0.879 to 1.064)

End point values	Cohort 1: Prevnar 13			
Subject group type	Reporting group			
Number of subjects analysed	51			
Units: Ratio				
geometric mean (confidence interval 95%)				
Serotype O1A (n =101, 98, 100, 48, 51)	1.18 (0.934 to 1.484)			
Serotype O2 (n =101, 98, 100, 48, 51)	1.06 (0.923 to 1.228)			
Serotype O4 (n =101, 98, 100, 48, 51)	1.08 (0.917 to 1.263)			
Serotype O6A (n =101, 98, 100, 48, 51)	1.18 (1.019 to 1.368)			
Serotype O8 (n =101, 98, 100, 48, 51)	1.07 (0.891 to 1.282)			
Serotype O15 (n =100, 97, 100, 48, 50)	1.55 (1.076 to 2.246)			
Serotype O16 (n =101, 98, 100, 48, 51)	0.97 (0.821 to 1.157)			
Serotype O18A (n =101, 98, 100, 48, 51)	1.17 (0.941 to 1.458)			
Serotype O25B (n =101, 98, 99, 48, 51)	1.44 (1.040 to 1.997)			
Serotype O75 (n =101, 98, 100, 48, 51)	1.03 (0.930 to 1.133)			

Statistical analyses

No statistical analyses for this end point

Primary: Cohort 1: Percentage of Participants With a >= 2-Fold and >=4-Fold Increase in Serotype-specific Serum Antibody Titers Measured by MOPA on Day 15

End point title	Cohort 1: Percentage of Participants With a >= 2-Fold and

	>=4-Fold Increase in Serotype-specific Serum Antibody Titers Measured by MOPA on Day 15[27][28]

End point description:

Percentage of participants with a >=2-fold and >=4-fold increase from baseline in serotype specific serum antibody titers as measured by MOPA on Day 15 was reported. The fold (>=2-fold and >=4-fold) increase from baseline to Day 15 for the serotypes O1A, O2, O4, O6A, O8, O15, O16, O18A, O25B, and O75 was calculated as the ratio of titer values of serum antibody on Day 15 and pre-vaccination (on day 1) that is, Day 15/Day 1. PPI analysis set included all randomized and vaccinated participants, for whom immunogenicity data were available excluding participants with major protocol deviations expected to impact the immunogenicity outcomes. Here, "N" (Number of participants analyzed) signifies participants evaluable for this endpoint and "n" signifies those participants who were evaluable at specified categories.

End point type	Primary

End point timeframe:

Baseline (Day 1, pre-vaccination) and Day 15

Notes:

[27] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: No inferential statistics were planned. Only descriptive statistics were planned.

[28] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: The data was planned for specified baseline arms only.

End point values	Cohort 1: Low Dose ExPEC10V	Cohort 1: Medium Dose ExPEC10V	Cohort 1: High Dose ExPEC10V	Cohort 1: ExPEC4V
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	101	98	100	48
Units: Percentage of participants				
number (confidence interval 95%)				
Serotype O1A: >= 2 FI (n =101, 98, 100, 48, 51)	49.5 (39.40 to 59.64)	70.4 (60.34 to 79.21)	72.0 (62.13 to 80.52)	75.0 (60.40 to 86.36)
Serotype O1A: >= 4 FI (n =101, 98, 100, 48, 51)	28.7 (20.15 to 38.57)	46.9 (36.78 to 57.29)	53.0 (42.76 to 63.06)	52.1 (37.19 to 66.71)
Serotype O2: >= 2 FI (n =101, 98, 100, 48, 51)	90.1 (82.54 to 95.15)	86.5 (77.96 to 92.59)	98.0 (92.89 to 99.75)	87.5 (74.75 to 95.27)
Serotype O2: >= 4 FI (n =101, 98, 100, 48, 51)	74.3 (64.60 to 82.44)	78.1 (68.53 to 85.92)	88.9 (80.99 to 94.32)	77.1 (62.69 to 87.97)
Serotype O4: >= 2 FI (n =101, 98, 100, 48, 51)	56.4 (46.20 to 66.28)	60.2 (49.82 to 69.96)	73.0 (63.20 to 81.39)	4.2 (0.51 to 14.25)
Serotype O4: >= 4 FI (n =101, 98, 100, 48, 51)	33.7 (24.56 to 43.75)	38.8 (29.10 to 49.15)	56.0 (45.72 to 65.92)	2.1 (0.05 to 11.07)
Serotype O6A: >= 2 FI (n =101, 98, 100, 48, 51)	47.5 (37.49 to 57.70)	54.1 (43.71 to 64.20)	63.0 (52.76 to 72.44)	66.7 (51.59 to 79.60)
Serotype O6A: >= 4 FI (n =101, 98, 100, 48, 51)	23.8 (15.86 to 33.26)	41.8 (31.95 to 52.23)	40.0 (30.33 to 50.28)	39.6 (25.77 to 54.73)
Serotype O8: >= 2 FI (n =101, 98, 100, 48, 51)	19.8 (12.54 to 28.91)	14.3 (8.04 to 22.81)	10.0 (4.90 to 17.62)	6.3 (1.31 to 17.20)
Serotype O8: >= 4 FI (n =101, 98, 100, 48, 51)	5.9 (2.21 to 12.48)	3.1 (0.64 to 8.69)	4.0 (1.10 to 9.9)	2.1 (0.05 to 11.07)
Serotype O15: >= 2 FI (n =100, 97, 100, 48, 50)	61.0 (50.73 to 70.60)	67.0 (56.73 to 76.22)	70.0 (60.02 to 78.76)	12.5 (4.73 to 25.25)
Serotype O15: >= 4 FI (n =100, 97, 100, 48, 50)	41.0 (31.26 to 51.29)	53.6 (43.19 to 63.80)	57.0 (46.71 to 66.86)	8.3 (2.32 to 19.9)
Serotype O16: >= 2 FI (n =101, 98, 100, 48, 51)	76.2 (66.74 to 84.14)	70.4 (60.34 to 79.21)	85.0 (76.47 to 91.35)	8.3 (2.32 to 19.9)
Serotype O16: >= 4 FI (n =101, 98, 100, 48, 51)	55.4 (45.22 to 65.34)	51.0 (40.72 to 61.26)	76.0 (66.43 to 83.98)	2.1 (0.05 to 11.07)
Serotype O18A: >= 2 FI (n =101, 98, 100, 48, 51)	69.3 (59.34 to 78.10)	66.3 (56.07 to 75.56)	77.0 (67.51 to 84.83)	6.3 (1.31 to 17.20)

Serotype O18A: >= 4 FI (n =101, 98, 100, 48, 51)	45.5 (35.60 to 55.76)	44.9 (34.83 to 55.28)	58.0 (47.71 to 67.80)	4.2 (0.51 to 14.25)
Serotype O25B: >= 2 FI (n =101, 98, 99, 48, 51)	47.5 (37.49 to 57.70)	50.0 (39.73 to 60.27)	50.0 (39.83 to 60.17)	50.0 (35.23 to 64.77)
Serotype O25B: >= 4 FI (n =101, 98, 99, 48, 51)	24.8 (16.70 to 34.33)	33.7 (24.44 to 43.93)	31.0 (22.13 to 41.03)	35.4 (22.16 to 50.54)
Serotype O75: >= 2 FI (n =101, 98, 100, 48, 51)	36.0 (26.64 to 46.21)	28.6 (19.9 to 38.58)	38.0 (28.48 to 48.25)	0.0 (0.00 to 7.40)
Serotype O75: >= 4 FI (n =101, 98, 100, 48, 51)	16.0 (9.43 to 24.68)	17.3 (10.44 to 26.31)	25.0 (16.88 to 34.66)	0.0 (0.00 to 7.40)

End point values	Cohort 1: Prevnar 13			
Subject group type	Reporting group			
Number of subjects analysed	51			
Units: Percentage of participants				
number (confidence interval 95%)				
Serotype O1A: >= 2 FI (n =101, 98, 100, 48, 51)	13.7 (5.70 to 26.26)			
Serotype O1A: >= 4 FI (n =101, 98, 100, 48, 51)	3.9 (0.48 to 13.46)			
Serotype O2: >= 2 FI (n =101, 98, 100, 48, 51)	11.8 (4.44 to 23.87)			
Serotype O2: >= 4 FI (n =101, 98, 100, 48, 51)	0.0 (0.00 to 6.98)			
Serotype O4: >= 2 FI (n =101, 98, 100, 48, 51)	11.8 (4.44 to 23.87)			
Serotype O4: >= 4 FI (n =101, 98, 100, 48, 51)	3.9 (0.48 to 13.46)			
Serotype O6A: >= 2 FI (n =101, 98, 100, 48, 51)	9.8 (3.26 to 21.41)			
Serotype O6A: >= 4 FI (n =101, 98, 100, 48, 51)	2.0 (0.05 to 10.45)			
Serotype O8: >= 2 FI (n =101, 98, 100, 48, 51)	11.8 (4.44 to 23.87)			
Serotype O8: >= 4 FI (n =101, 98, 100, 48, 51)	3.9 (0.48 to 13.46)			
Serotype O15: >= 2 FI (n =100, 97, 100, 48, 50)	28.0 (16.23 to 42.49)			
Serotype O15: >= 4 FI (n =100, 97, 100, 48, 50)	14.0 (5.82 to 26.74)			
Serotype O16: >= 2 FI (n =101, 98, 100, 48, 51)	9.8 (3.26 to 21.41)			
Serotype O16: >= 4 FI (n =101, 98, 100, 48, 51)	3.9 (0.48 to 13.46)			
Serotype O18A: >= 2 FI (n =101, 98, 100, 48, 51)	7.8 (2.18 to 18.88)			
Serotype O18A: >= 4 FI (n =101, 98, 100, 48, 51)	5.9 (1.23 to 16.24)			
Serotype O25B: >= 2 FI (n =101, 98, 99, 48, 51)	15.7 (7.02 to 28.59)			
Serotype O25B: >= 4 FI (n =101, 98, 99, 48, 51)	5.9 (1.23 to 16.24)			
Serotype O75: >= 2 FI (n =101, 98, 100, 48, 51)	3.9 (0.48 to 13.46)			
Serotype O75: >= 4 FI (n =101, 98, 100, 48, 51)	0.0 (0.00 to 6.98)			

Statistical analyses

No statistical analyses for this end point

Primary: Cohort 2: Geometric Mean Titers (GMTs) of Serotype-specific Total Immunoglobulin G (IgG) Serum Antibodies as Measured by Multiplex ECL Based Immunoassay on Day 30

End point title	Cohort 2: Geometric Mean Titers (GMTs) of Serotype-specific Total Immunoglobulin G (IgG) Serum Antibodies as Measured by Multiplex ECL Based Immunoassay on Day 30[29][30]

End point description:

GMTs of serotype-specific total IgG serum antibodies as measured by multiplex ECL based immunoassay were reported. GMTs for each antigen serotypes O1A, O2, O4, O6A, O8, O15, O16, O18A, O25B, O75 and EPA were determined in serum from collected blood samples. PPI analysis set included all randomized and vaccinated participants, for whom immunogenicity data were available excluding participants with major protocol deviations expected to impact the immunogenicity outcomes. Here, "N" (number of participants analyzed) signifies participants evaluable for this endpoint. Here, (9999) signifies that lower limit of 95% CI could not be estimated as the value was below the LLOQ, that is, O1A: 69149, O2: 65287, O4: 67356, O6A: 150748, O8: 72196, O15: 66910, O16: 71586, O18A: 70519, O25B: 61990, O75: 133019, and EPA: 66165.

End point type	Primary

End point timeframe:

At Day 30

Notes:

[29] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: No inferential statistics were planned. Only descriptive statistics were planned.

[30] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: The data was planned for specified baseline arms only.

End point values	Cohort 2: ExPEC10V High Dose	Cohort 2: Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	258	129		
Units: Titer				
geometric mean (confidence interval 95%)				
Serotype O1A	6341302.4 (5889782.4 to 6827436.7)	1762724.3 (1505477.9 to 2063927.4)		
Serotype O2	5957433.5 (5487954.2 to 6467075.6)	749984.6 (628913.9 to 894362.5)		
Serotype O4	3537556.6 (3153145.2 to 3968833.1)	805295.5 (689894.4 to 940000.1)		
Serotype O6A	5461039.4 (4992165.2 to 5973951.2)	1944280.6 (1664293.0 to 2271371.1)		

Serotype O8	6240213.6 (5782238.7 to 6734461.7)	2315932.9 (2011986.2 to 2665796.4)		
Serotype O15	5724175.1 (5301709.2 to 6180305.1)	1207724.5 (1028556.8 to 1418101.9)		
Serotype O16	5158063.5 (4735530.7 to 5618297.2)	1127584.4 (1001022.6 to 1270147.7)		
Serotype O18	4046778.4 (3656809.6 to 4478334.1)	1365154.9 (1196273.0 to 1557878.4)		
Serotype O25B	2117662.8 (1843164.1 to 2433042.1)	375570.5 (316412.1 to 445789.5)		
Serotype O75	3758021.3 (3419541.0 to 4130005.8)	1577900.4 (1365705.2 to 1823065.1)		
Serotype EPA	780539.6 (622435.7 to 978803.3)	75018.0 (9999 to 91880.8)		

Statistical analyses

No statistical analyses for this end point

Primary: Cohort 2: Geometric Mean Ratio (GMR) of Fold Changes From Baseline For Serotype-specific Antibodies Measured by Multiplex ECL Based Immunoassay on Day 30

End point title	Cohort 2: Geometric Mean Ratio (GMR) of Fold Changes From Baseline For Serotype-specific Antibodies Measured by Multiplex ECL Based Immunoassay on Day 30[31][32]

End point description:

GMR of fold changes from baseline for serotype-specific antibodies as measured by multiplex ECL based immunoassay on Day 30 were reported. GMR for each antigen serotypes O1A, O2, O4, O6A, O8, O15, O16, O18A, O25B, O75 and EPA were determined in serum from collected blood samples by multiplex ECL based immunoassay. GMR of fold change from baseline was calculated as the ratio of GMTs on Day 30 and pre-vaccination (on Day 1). PPI analysis set included all randomized and vaccinated participants, for whom immunogenicity data were available excluding participants with major protocol deviations expected to impact the immunogenicity outcomes. Here, "N" (number of participants analyzed) signifies participants evaluable for this endpoint.

End point type	Primary

End point timeframe:

Baseline (Day 1, pre-vaccination) and Day 30

Notes:

[31] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: No inferential statistics were planned. Only descriptive statistics were planned.

[32] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: The data was planned for specified baseline arms only.

End point values	Cohort 2: ExPEC10V High Dose	Cohort 2: Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	258	129		
Units: Ratio				
geometric mean (confidence interval 95%)				
Serotype O1A	4.40 (3.958 to 4.893)	1.02 (0.955 to 1.095)		
Serotype O2	8.18 (7.255 to 9.227)	0.98 (0.909 to 1.055)		
Serotype O4	5.31 (4.726 to 5.955)	1.09 (1.014 to 1.168)		
Serotype O6A	3.64 (3.289 to 4.019)	1.06 (0.993 to 1.138)		
Serotype O8	2.92 (2.655 to 3.221)	1.01 (0.965 to 1.058)		
Serotype O15	5.00 (4.483 to 5.565)	1.02 (0.961 to 1.077)		
Serotype O16	5.04 (4.571 to 5.561)	1.06 (0.993 to 1.126)		
Serotype O18	3.40 (3.088 to 3.754)	1.07 (1.017 to 1.132)		
Serotype O25B	5.59 (4.866 to 6.428)	1.04 (0.963 to 1.115)		
Serotype O75	2.33 (2.136 to 2.531)	1.04 (0.979 to 1.110)		
Serotype EPA	8.06 (6.73 to 9.64)	1.02 (0.97 to 1.08)		

Statistical analyses

No statistical analyses for this end point

Primary: Cohort 2: Percentage of Participants With a >=2-Fold and >=4-Fold Increase From Baseline in Serotype Specific Serum Antibody Titers as Measured by Multiplex ECL Based Immunoassay on Day 30

End point title	Cohort 2: Percentage of Participants With a >=2-Fold and >=4-Fold Increase From Baseline in Serotype Specific Serum Antibody Titers as Measured by Multiplex ECL Based Immunoassay on Day 30[33][34]

End point description:

Percentage of participants with a >=2-fold and >=4-fold increase from baseline in serotype specific serum antibody titers as measured by multiplex ECL based immunoassay on Day 30 was reported. The fold (>=2-fold and >=4-fold) increase from baseline to Day 30 for the serotypes O1A, O2, O4, O6A, O8, O15, O16, O18A, O25B, O75 and EPA was calculated as the ratio of titer values of serum antibody on Day 30 and pre-vaccination (on day 1) that is, Day 30/Day 1. PPI analysis set included all randomized and vaccinated participants, for whom immunogenicity data were available excluding participants with major protocol deviations expected to impact the immunogenicity outcomes. Here, "N" (number of participants analyzed) signifies participants evaluable for this endpoint.

End point type	Primary

End point timeframe:

Baseline (Day 1, pre-vaccination) and Day 30

Notes:

[33] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: No inferential statistics were planned. Only descriptive statistics were planned.

[34] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: The data was planned for specified baseline arms only.

End point values	Cohort 2: ExPEC10V High Dose	Cohort 2: Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	258	129		
Units: Percentage of participants				
number (confidence interval 95%)				
Serotype O1A: >= 2 Fold Increase	78.3 (72.76 to 83.17)	1.6 (0.19 to 5.49)		
Serotype O1A: >= 4 Fold Increase	54.7 (48.36 to 60.84)	0.8 (0.02 to 4.24)		
Serotype O2: >= 2 Fold Increase	89.1 (84.70 to 92.67)	1.6 (0.19 to 5.49)		
Serotype O2: >= 4 Fold Increase	77.5 (71.93 to 82.46)	1.6 (0.19 to 5.49)		
Serotype O4: >= 2 Fold Increase	81.4 (76.10 to 85.95)	2.3 (0.48 to 6.65)		
Serotype O4: >= 4 Fold Increase	58.9 (52.64 to 64.98)	1.6 (0.19 to 5.49)		
Serotype O6A: >= 2 Fold Increase	73.3 (67.41 to 78.56)	2.3 (0.48 to 6.65)		
Serotype O6A: >= 4 Fold Increase	44.2 (38.03 to 50.48)	0.8 (0.02 to 4.24)		
Serotype O8: >= 2 Fold Increase	64.0 (57.77 to 69.82)	1.6 (0.19 to 5.49)		
Serotype O8: >= 4 Fold Increase	38.4 (32.41 to 44.61)	1.6 (0.19 to 5.49)		
Serotype O15: >= 2 Fold Increase	84.1 (79.07 to 88.35)	1.6 (0.19 to 5.49)		
Serotype O15: >= 4 Fold Increase	58.5 (52.25 to 64.60)	0.8 (0.02 to 4.24)		
Serotype O16: >= 2 Fold Increase	86.0 (81.21 to 90.03)	1.6 (0.19 to 5.49)		
Serotype O16: >= 4 Fold Increase	62.4 (56.18 to 68.33)	1.6 (0.19 to 5.49)		
Serotype O18: >= 2 Fold Increase	69.0 (62.96 to 74.58)	1.6 (0.19 to 5.49)		
Serotype O18: >= 4 Fold Increase	43.0 (36.90 to 49.31)	0.8 (0.02 to 4.24)		
Serotype O25B: >= 2 Fold Increase	78.3 (72.76 to 83.17)	2.3 (0.48 to 6.65)		
Serotype O25B: >= 4 Fold Increase	56.6 (50.30 to 62.72)	1.6 (0.19 to 5.49)		
Serotype O75: >= 2 Fold Increase	51.2 (44.89 to 57.41)	2.3 (0.48 to 6.65)		
Serotype O75: >= 4 Fold Increase	23.6 (18.59 to 29.31)	2.3 (0.48 to 6.65)		
Serotype EPA: >= 2 Fold Increase	77.9 (72.34 to 82.82)	1.6 (0.19 to 5.49)		
Serotype EPA: >= 4 Fold Increase	65.5 (59.36 to 71.29)	1.6 (0.19 to 5.49)		

Statistical analyses

No statistical analyses for this end point

Primary: Cohort 2: Geometric Mean Titer (GMT) of Serotype-specific Total Immunoglobulin G (IgG) Serum Antibodies as Measured by Multiplex Opsonophagocytic Assay (MOPA) on Day 30

End point title	Cohort 2: Geometric Mean Titer (GMT) of Serotype-specific Total Immunoglobulin G (IgG) Serum Antibodies as Measured by Multiplex Opsonophagocytic Assay (MOPA) on Day 30[35][36]

End point description:

GMTs of serotype-specific total IgG serum antibodies as measured by MOPA were reported. GMTs for each antigen serotypes O1A, O2, O4, O6A, O15, O16, O18A, O25B, and O75 were determined in serum from collected blood samples. For serotype O8 functional IgG serum antibodies were not evaluated as the assay was not able to detect vaccine-induced functional antibodies against the O8 serotype. PPI analysis set included all randomized and vaccinated participants, for whom immunogenicity data were available excluding participants with major protocol deviations expected to impact the immunogenicity outcomes. Here, "N" (number of participants analyzed) signifies participants evaluable for this endpoint and "n" signifies those participants who were evaluable at specified categories. Here, (9.9999) signifies that Geometric mean and lower limit of 95% CI could not be estimated as the value was below the LLOQ, that is, O1A: 33, O2: 42, O4: 12, O6A: 62, O15: 75, O16: 17, O18A: 44, O25B: 58, O75: 14.

End point type	Primary

End point timeframe:

At Day 30

Notes:

[35] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: No inferential statistics were planned. Only descriptive statistics were planned.

[36] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: The data was planned for specified baseline arms only.

End point values	Cohort 2: ExPEC10V High Dose	Cohort 2: Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	258	70		
Units: Titer				
geometric mean (confidence interval 95%)				
Serotype O1A (n=258, 70)	703.0 (611.1 to 808.7)	492.4 (382.9 to 633.2)		
Serotype O2 (n=258, 70)	3523.2 (2950.7 to 4206.7)	502.4 (403.6 to 625.4)		
Serotype O4 (n=258, 70)	803.9 (683.3 to 945.7)	178.7 (138.7 to 230.4)		
Serotype O6A (n=258, 70)	1392.6 (1196.9 to 1620.3)	557.0 (416.8 to 744.3)		

Serotype O15 (n=258, 70)	2773.8 (2347.4 to 3277.6)	458.0 (338.4 to 619.9)		
Serotype O16 (n=258, 70)	1347.0 (1132.2 to 1602.5)	116.0 (88.0 to 152.8)		
Serotype O18 (n=258, 70)	516.3 (446.2 to 597.3)	168.2 (128.8 to 219.6)		
Serotype O25B (n=258, 70)	159.8 (135.4 to 188.5)	9.9999 (-9.9999 to 69.6)		
Serotype O75 (n=257, 69)	201.0 (169.5 to 238.3)	52.2 (39.2 to 69.6)		

Statistical analyses

No statistical analyses for this end point

Primary: Cohort 2: Geometric Mean Ratio (GMR) of Fold Changes From Baseline for Serotype Specific Antibodies as Measured by MOPA on Day 30

End point title	Cohort 2: Geometric Mean Ratio (GMR) of Fold Changes From Baseline for Serotype Specific Antibodies as Measured by MOPA on Day 30[37][38]

End point description:

GMR of fold changes from baseline for serotype specific antibodies as measured by MOPA on Day 30 were reported. GMR for each antigen serotypes O1A, O2, O4, O6A, O15, O16, O18A, O25B and O75 were determined in serum from collected blood samples by MOPA. GMR of fold change from baseline was calculated as the ratio of GMTs on Day 30 and pre-vaccination (on Day 1). For serotype O8 functional IgG serum antibodies were not evaluated as the assay was not able to detect vaccine-induced functional antibodies against the O8 serotype. PPI analysis set included all randomized and vaccinated participants, for whom immunogenicity data were available excluding participants with major protocol deviations expected to impact the immunogenicity outcomes. Here, "N" (number of participants analyzed) signifies participants evaluable for this outcome measure and "n" signifies those participants who were evaluable at specified categories.

End point type	Primary

End point timeframe:

Baseline (Day 1, pre-vaccination) and Day 30

Notes:

[37] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: No inferential statistics were planned. Only descriptive statistics were planned.

[38] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: The data was planned for specified baseline arms only.

End point values	Cohort 2: ExPEC10V High Dose	Cohort 2: Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	258	70		
Units: Ratio				
geometric mean (confidence interval 95%)				
Serotype O1A (n=258, 70)	1.81 (1.602 to 2.054)	1.23 (1.036 to 1.451)		

Serotype O2 (n=258, 70)	8.04 (6.684 to 9.681)	1.07 (0.901 to 1.265)		
Serotype O4 (n=258, 70)	4.26 (3.607 to 5.033)	0.98 (0.827 to 1.162)		
Serotype O6A (n=258, 70)	2.57 (2.251 to 2.939)	1.02 (0.870 to 1.192)		
Serotype O15 (n=258, 70)	6.70 (5.641 to 7.958)	1.05 (0.807 to 1.376)		
Serotype O16 (n=258, 70)	9.68 (8.055 to 11.639)	1.02 (0.841 to 1.227)		
Serotype O18 (n=258, 70)	2.88 (2.482 to 3.332)	0.93 (0.805 to 1.083)		
Serotype O25B (n=258, 70)	2.05 (1.813 to 2.308)	0.94 (0.841 to 1.045)		
Serotype O75 (n=255, 68)	3.21 (2.744 to 3.745)	1.18 (0.973 to 1.438)		

Statistical analyses

No statistical analyses for this end point

Primary: Cohort 2: Percentage of Participants With a >= 2-Fold and >=4-Fold Increase in Serotype-specific Serum Antibodies Titers Measured by MOPA on Day 30

End point title	Cohort 2: Percentage of Participants With a >= 2-Fold and >=4-Fold Increase in Serotype-specific Serum Antibodies Titers Measured by MOPA on Day 30[39][40]

End point description:

Percentage of participants with a >=2-fold and >=4-fold increase from baseline in serotype specific serum antibodies titers as measured by MOPA on Day 30 was reported. The fold (>=2-fold and >=4-fold increase from baseline to Day 30 for the serotypes O1A, O2, O4, O6A, O15, O16, O18A, O25B and O75 was calculated as the ratio of titer values of serum antibodies on Day 30 and pre-vaccination (on day 1 that is, Day 30/Day 1. For serotype O8 functional IgG serum antibodies were not evaluated as the assay was not able to detect vaccine-induced functional antibodies against the O8 serotype. PPI analysis set included all randomized and vaccinated participants, for whom immunogenicity data were available excluding participants with major protocol deviations expected to impact the immunogenicity outcomes. Here, "N" (Number of participants analyzed) signifies participants evaluable for this endpoint and "n" signifies those participants who were evaluable at specified categories.

End point type	Primary

End point timeframe:

Baseline (Day 1, pre-vaccination) and Day 30

Notes:

[39] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: No inferential statistics were planned. Only descriptive statistics were planned.

[40] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: The data was planned for specified baseline arms only.

End point values	Cohort 2: ExPEC10V High Dose	Cohort 2: Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	258	70		
Units: Percentage of participants				
number (confidence interval 95%)				

Serotype O1A: >= 2 Fold Increase (n=258, 70)	41.5 (35.40 to 47.75)	22.9 (13.67 to 34.45)		
Serotype O1A: >= 4 Fold Increase (n=258, 70)	17.8 (13.36 to 23.06)	2.9 (0.35 to 9.94)		
Serotype O2: >= 2 Fold Increase (n=258, 70)	81.0 (75.68 to 85.61)	18.6 (10.28 to 29.66)		
Serotype O2: >= 4 Fold Increase (n=258, 70)	63.6 (57.37 to 69.45)	4.3 (0.89 to 12.02)		
Serotype O4: >= 2 Fold Increase (n=258, 70)	64.7 (58.56 to 70.55)	14.3 (7.07 to 24.71)		
Serotype O4: >= 4 Fold Increase (n=258, 70)	45.7 (39.54 to 52.03)	4.3 (0.89 to 12.02)		
Serotype O6A: >= 2 Fold Increase (n=258, 70)	54.3 (47.97 to 60.46)	17.1 (9.18 to 28.03)		
Serotype O6A: >= 4 Fold Increase (n=258, 70)	32.9 (27.24 to 39.05)	1.4 (0.04 to 7.70)		
Serotype O15: >= 2 Fold Increase (n=258, 70)	81.4 (76.10 to 85.95)	22.9 (13.67 to 34.45)		
Serotype O15: >= 4 Fold Increase (n=258, 70)	62.8 (56.58 to 68.71)	8.6 (3.21 to 17.73)		
Serotype O16: >= 2 Fold Increase (n=258, 70)	86.0 (81.21 to 90.03)	18.6 (10.28 to 29.66)		
Serotype O16: >= 4 Fold Increase (n=258, 70)	70.9 (64.98 to 76.40)	4.3 (0.89 to 12.02)		
Serotype O18: >= 2 Fold Increase (n=258, 70)	55.8 (49.52 to 61.97)	14.3 (7.07 to 24.71)		
Serotype O18: >= 4 Fold Increase (n=258, 70)	34.5 (28.71 to 40.64)	0.0 (0.00 to 5.13)		
Serotype O25B: >= 2 Fold Increase (n=258, 70)	41.1 (35.02 to 47.36)	5.7 (1.58 to 13.99)		
Serotype O25B: >= 4 Fold Increase (n=258, 70)	21.3 (16.48 to 26.83)	0.0 (0.00 to 5.13)		
Serotype O75: >= 2 Fold Increase (n=255, 68)	58.4 (52.12 to 64.55)	23.5 (14.09 to 35.38)		
Serotype O75: >= 4 Fold Increase (n=255, 68)	36.9 (30.93 to 43.11)	10.3 (4.24 to 20.07)		

Statistical analyses

No statistical analyses for this end point

Secondary: Cohort 1: Correlation Between the Multiplex ECL-Based Immunoassay and the MOPA Functional Titers by Serotypes on Day 15

End point title	Cohort 1: Correlation Between the Multiplex ECL-Based Immunoassay and the MOPA Functional Titers by Serotypes on Day 15[41]

End point description:

Correlation between the multiplex ECL-based immunoassay and the MOPA functional titers by serotypes (O1A, O2, O4, O6A, O8, O15, O16, O18A, O25B and O75) on Day 15 were analyzed. PPI analysis set included all randomized and vaccinated participants, for whom immunogenicity data were available excluding participants with major protocol deviations expected to impact the immunogenicity endpoint. Here, "N" (Number of participants analyzed) signifies participants evaluable for this outcome measure and "n" signifies those participants who were evaluable at specified categories.

End point type	Secondary

End point timeframe:

Day 15

Notes:

[41] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.

Justification: The data was planned for specified baseline arms only.

End point values	Cohort 1: Low Dose ExPEC10V	Cohort 1: Medium Dose ExPEC10V	Cohort 1: High Dose ExPEC10V	Cohort 1: ExPEC4V
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	101	98	100	48
Units: correlation coefficient				
number (confidence interval 95%)				
Serotype O1A (n =101, 98, 100, 48, 51)	0.62 (0.49 to 0.73)	0.51 (0.35 to 0.64)	0.63 (0.49 to 0.73)	0.57 (0.34 to 0.73)
Serotype O2 (n =101, 96, 99, 48, 51)	0.72 (0.61 to 0.80)	0.74 (0.63 to 0.82)	0.64 (0.51 to 0.74)	0.74 (0.58 to 0.85)
Serotype O4 (n =101, 98, 100, 48, 51)	0.69 (0.58 to 0.78)	0.65 (0.52 to 0.75)	0.61 (0.47 to 0.72)	-0.12 (-0.39 to 0.17)
Serotype O6A (n =101, 98, 100, 48, 51)	0.48 (0.31 to 0.62)	0.53 (0.37 to 0.66)	0.60 (0.46 to 0.72)	0.67 (0.48 to 0.80)
Serotype O8 (n =101, 98, 100, 48, 51)	0.29 (0.10 to 0.46)	0.01 (-0.19 to 0.21)	0.20 (0.00 to 0.38)	-0.01 (-0.29 to 0.28)
Serotype O15 (n =100, 98, 100, 48, 50)	0.59 (0.44 to 0.70)	0.58 (0.43 to 0.70)	0.60 (0.46 to 0.71)	0.17 (-0.12 to 0.43)
Serotype O16 (n =101, 98, 100, 48, 51)	0.74 (0.64 to 0.82)	0.67 (0.54 to 0.77)	0.69 (0.58 to 0.78)	0.52 (0.28 to 0.70)
Serotype O18A (n =101, 98, 100, 48, 51)	0.69 (0.58 to 0.78)	0.65 (0.52 to 0.75)	0.72 (0.61 to 0.80)	0.39 (0.12 to 0.61)
Serotype O25B (n =101, 98, 99, 48, 51)	0.55 (0.40 to 0.68)	0.57 (0.42 to 0.69)	0.54 (0.38 to 0.66)	0.46 (0.21 to 0.66)
Serotype O75 (n =100, 98, 100, 48, 51)	0.60 (0.45 to 0.71)	0.45 (0.27 to 0.59)	0.64 (0.51 to 0.75)	0.51 (0.26 to 0.69)

End point values	Cohort 1: Prevnar 13			
Subject group type	Reporting group			
Number of subjects analysed	51			
Units: correlation coefficient				
number (confidence interval 95%)				
Serotype O1A (n =101, 98, 100, 48, 51)	0.51 (0.27 to 0.69)			
Serotype O2 (n =101, 96, 99, 48, 51)	0.59 (0.38 to 0.75)			
Serotype O4 (n =101, 98, 100, 48, 51)	0.47 (0.22 to 0.66)			
Serotype O6A (n =101, 98, 100, 48, 51)	0.15 (-0.14 to 0.40)			
Serotype O8 (n =101, 98, 100, 48, 51)	0.15 (-0.13 to 0.41)			
Serotype O15 (n =100, 98, 100, 48, 50)	0.41 (0.15 to 0.62)			
Serotype O16 (n =101, 98, 100, 48, 51)	0.48 (0.24 to 0.67)			
Serotype O18A (n =101, 98, 100, 48, 51)	0.55 (0.32 to 0.71)			

Serotype O25B (n =101, 98, 99, 48, 51)	-0.02 (-0.29 to 0.26)			
Serotype O75 (n =100, 98, 100, 48, 51)	0.35 (0.08 to 0.57)			

Statistical analyses

No statistical analyses for this end point

Secondary: Cohort 1: Geometric Mean Titers (GMTs) of Serotype-specific Total Immunoglobulin G (IgG) Serum Antibodies as Measured by Multiplex ECL Based Immunoassay on Days 30 and 181

End point title	Cohort 1: Geometric Mean Titers (GMTs) of Serotype-specific Total Immunoglobulin G (IgG) Serum Antibodies as Measured by Multiplex ECL Based Immunoassay on Days 30 and 181[42]

End point description:

GMTs of serotype-specific total IgG serum antibodies as measured by multiplex ECL based immunoassay on Days 30 and 181 were reported. GMTs for each antigen serotypes O1A, O2, O4, O6A, O8, O15, O16, O18A, O25B, O75 and EPA were determined in serum from collected blood samples. PPI analysis set included all randomized and vaccinated participants, for whom immunogenicity data were available excluding participants with major protocol deviations expected to impact the immunogenicity outcomes. Here, "N" (Number of participants analyzed) signifies participants evaluable for this endpoint and "n" signifies those participants who were evaluable at specified categories. Here, 9999.9 signifies that geometric mean and lower limit of 95% CI could not be estimated as the value was one-half of the LLOQ, that is, O1A: 69149, O2: 65287, O4: 67356, O6A: 150748, O8: 72196, O15: 66910, O16: 71586, O18A: 70519, O25B: 61990, O75: 133019, and EPA: 66165.

End point type	Secondary

End point timeframe:

Days 30 and 181

Notes:

[42] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.

Justification: The data was planned for specified baseline arms only.

End point values	Cohort 1: Low Dose ExPEC10V	Cohort 1: Medium Dose ExPEC10V	Cohort 1: High Dose ExPEC10V	Cohort 1: ExPEC4V
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	101	98	100	48
Units: Titer				
geometric mean (confidence interval 95%)				
Day 30: Serotype O1A (n =101, 98, 100, 48, 51)	5112484.0 (4410187.9 to 5926616.5)	6188073.3 (5425498.1 to 7057831.4)	6383997.2 (5633938.0 to 7233913.5)	6070942.6 (4778712.5 to 7712609.5)
Day 30: Serotype O2 (n =101, 98, 100, 48, 51)	4748963.2 (4012632.8 to 5620412.3)	4270069.6 (3501400.5 to 5207486.0)	6330528.7 (5614246.1 to 7138196.7)	5413245.9 (4188560.3 to 6996015.3)
Day 30: Serotype O4 (n =101, 98, 100, 48, 51)	2849977.5 (2298957.5 to 3533067.3)	2286562.3 (1855540.8 to 2817705.3)	3835055.2 (3183368.8 to 4620152.0)	501717.6 (417216.6 to 603333.0)
Day 30: Serotype O6A (n =101, 98, 100, 48, 51)	3914979.5 (3360214.3 to 4561335.5)	4675388.4 (3910364.2 to 5590082.1)	5328088.3 (4595271.6 to 6177768.6)	4648933.4 (3601807.2 to 6000482.7)
Day 30: Serotype O8 (n =101, 98, 100, 48, 51)	5443708.3 (4750360.8 to 6238254.6)	5717188.1 (4983597.2 to 6558764.4)	6287045.5 (5617980.2 to 7035792.2)	1684506.5 (1372618.1 to 2067262.5)

Day 30: Serotype O15 (n =101, 98, 100, 48, 51)	4913158.9 (4214268.5 to 5727952.5)	4267640.2 (3590342.0 to 5072707.0)	5216657.6 (4496071.7 to 6052732.0)	900296.6 (691458.3 to 1172209.6)
Day 30: Serotype O16 (n =101, 98, 100, 48, 51)	4376021.6 (3720209.1 to 5147443.3)	3525973.6 (2932681.9 to 4239290.3)	5410106.5 (4684904.9 to 6247565.9)	723757.2 (621819.1 to 842406.6)
Day 30: Serotype O18A (n =101, 98, 100, 48, 51)	3500329.1 (2944423.4 to 4161189.5)	3317876.1 (2741547.6 to 4015360.4)	4518450.7 (3838422.1 to 5318955.6)	1006196.4 (830764.7 to 1218673.8)
Day 30: Serotype O25B (n =101, 98, 100, 48, 51)	1345602.7 (1045822.6 to 1731313.4)	2067379.5 (1579663.8 to 2705675.7)	1720048.6 (1357130.9 to 2180016.1)	1651715.3 (1155425.4 to 2361176.7)
Day 30: Serotype O75 (n =101, 98, 100, 48, 51)	2827912.3 (2357677.6 to 3391934.5)	2640901.8 (2178489.5 to 3201466.9)	3569256.9 (3057254.3 to 4167005.2)	1180934.2 (941313.5 to 1481552.7)
Day 30: Serotype EPA (n =99, 93, 99, 48, 48)	1019260.3 (727674.3 to 1427687.4)	1306567.5 (877517.2 to 1945396.2)	1344648.1 (957989.8 to 1887367.1)	1107480.0 (641693.9 to 1911366.1)
Day 181: Serotype O1A (n =101, 98, 100, 48, 51)	3583270.6 (2911726.7 to 4409695.6)	4537954.7 (3685416.2 to 5587709.0)	5046472.5 (4245661.9 to 5998330.9)	4468702.4 (3299074.4 to 6053001.2)
Day 181: Serotype O2 (n =101, 98, 100, 48, 51)	2970482.1 (2354313.7 to 3747913.3)	3163734.9 (2474677.1 to 4044656.4)	4729234.1 (3894909.1 to 5742279.2)	4266510.5 (3102445.5 to 5867343.2)
Day 181: Serotype O4 (n =101, 98, 100, 48, 51)	1719377.7 (1343456.0 to 2200488.7)	1464137.0 (1147541.0 to 1868079.0)	2063300.4 (1668018.7 to 2552254.6)	501991.4 (406178.0 to 620406.3)
Day 181: Serotype O6A (n =101, 98, 100, 48, 51)	2742527.1 (2289293.7 to 3285491.5)	3187945.6 (2581356.0 to 3937077.1)	3447910.8 (2852867.7 to 4167066.4)	3334516.2 (2533469.4 to 4388842.5)
Day 181: Serotype O8 (n =101, 98, 100, 48, 51)	3792115.2 (3159463.7 to 4551449.0)	4351162.8 (3653295.9 to 5182338.9)	4752992.0 (4056882.5 to 5568545.1)	1757076.5 (1418223.5 to 2176891.0)
Day 181: Serotype O15 (n =101, 98, 100, 48, 51)	3171754.0 (2567192.7 to 3918686.5)	3172409.9 (2587224.3 to 3889954.4)	3306905.3 (2719748.6 to 4020821.2)	919201.8 (696966.2 to 1212299.8)
Day 181: Serotype O16 (n =101, 98, 100, 48, 51)	2952055.2 (2380469.2 to 3660887.5)	2527864.6 (2047268.5 to 3121280.6)	3713051.1 (3064737.4 to 4498508.8)	774950.8 (638278.5 to 940888.3)
Day 181: Serotype O18A (n =101, 98, 100, 48, 51)	2219012.5 (1830470.2 to 2690028.3)	2376169.7 (1917314.2 to 2944839.5)	2586344.3 (2158196.6 to 3099428.8)	943359.0 (785332.4 to 1133184.1)
Day 181: Serotype O25B (n =101, 98, 100, 48, 51)	831345.5 (623871.7 to 1107816.5)	1144537.9 (849494.3 to 1542055.0)	939742.9 (725097.2 to 1217928.6)	794017.4 (547313.1 to 1151925.0)
Day 181: Serotype O75 (n =101, 98, 100, 48, 51)	1984426.0 (1622665.9 to 2426837.6)	1882478.8 (1529846.4 to 2316393.5)	2398218.7 (2000407.3 to 2875141.0)	1034083.5 (835708.8 to 1279546.9)
Day 181: Serotype EPA (n =76, 75, 80, 43, 37)	465763.6 (312682.1 to 693790.1)	561582.3 (359386.0 to 877537.3)	502960.6 (354918.2 to 712754.2)	584874.1 (336014.2 to 1018045.1)

End point values	Cohort 1: Prevnar 13			
Subject group type	Reporting group			
Number of subjects analysed	51			
Units: Titer				
geometric mean (confidence interval 95%)				

Day 30: Serotype O1A (n =101, 98, 100, 48, 51)	1794173.8 (1315930.3 to 2446223.7)			
Day 30: Serotype O2 (n =101, 98, 100, 48, 51)	484833.8 (372182.7 to 631581.8)			
Day 30: Serotype O4 (n =101, 98, 100, 48, 51)	585948.8 (448200.5 to 766032.1)			
Day 30: Serotype O6A (n =101, 98, 100, 48, 51)	1018443.7 (813194.1 to 1275498.2)			
Day 30: Serotype O8 (n =101, 98, 100, 48, 51)	1549931.5 (1203616.5 to 1995891.3)			
Day 30: Serotype O15 (n =101, 98, 100, 48, 51)	1106266.6 (821060.3 to 1490543.2)			
Day 30: Serotype O16 (n =101, 98, 100, 48, 51)	819745.0 (642584.7 to 1045748.2)			
Day 30: Serotype O18A (n =101, 98, 100, 48, 51)	1121774.9 (868211.3 to 1449392.5)			
Day 30: Serotype O25B (n =101, 98, 100, 48, 51)	285650.4 (211348.9 to 386073.0)			
Day 30: Serotype O75 (n =101, 98, 100, 48, 51)	1399568.8 (1063013.9 to 1842678.4)			
Day 30: Serotype EPA (n =99, 93, 99, 48, 48)	9999.9 (9999.9 to 77381.5)			
Day 181: Serotype O1A (n =101, 98, 100, 48, 51)	1523139.6 (1054776.8 to 2199474.2)			
Day 181: Serotype O2 (n =101, 98, 100, 48, 51)	490033.8 (367540.7 to 653351.1)			
Day 181: Serotype O4 (n =101, 98, 100, 48, 51)	549904.9 (410508.2 to 736636.7)			
Day 181: Serotype O6A (n =101, 98, 100, 48, 51)	958424.9 (745010.8 to 1232973.1)			
Day 181: Serotype O8 (n =101, 98, 100, 48, 51)	1637517.2 (1193309.1 to 2247081.3)			
Day 181: Serotype O15 (n =101, 98, 100, 48, 51)	948722.9 (703688.5 to 1279081.8)			
Day 181: Serotype O16 (n =101, 98, 100, 48, 51)	720322.3 (537574.2 to 965195.6)			
Day 181: Serotype O18A (n =101, 98, 100, 48, 51)	1025511.9 (773259.0 to 1360054.9)			
Day 181: Serotype O25B (n =101, 98, 100, 48, 51)	239952.5 (185411.5 to 310537.2)			
Day 181: Serotype O75 (n =101, 98, 100, 48, 51)	1159722.4 (858094.1 to 1567375.9)			

Day 181: Serotype EPA (n =76, 75, 80, 43, 37)	9999.9 (-9999.9 to 82330.5)			

Statistical analyses

No statistical analyses for this end point

Secondary: Cohort 1: Geometric Mean Ratio (GMR) of Fold Changes from Baseline for Serotype-specific Antibodies Measured by Multiplex ECL Based Immunoassay on Days 30 and 181

End point title	Cohort 1: Geometric Mean Ratio (GMR) of Fold Changes from Baseline for Serotype-specific Antibodies Measured by Multiplex ECL Based Immunoassay on Days 30 and 181[43]

End point description:

GMR of fold changes from baseline for serotype specific antibodies measured by multiplex ECL based immunoassay on Days 30 and 181 were reported. GMR for each antigen serotypes O1A, O2, O4, O6A, O8, O15, O16, O18A, O25B, O75 and EPA were determined in serum from collected blood samples by ECL based immunoassay. GMR of fold change from baseline was calculated as the ratio of GMTs on Days 30 and 181 and pre-vaccination (on Day 1). PPI analysis set included all randomized and vaccinated participants, for whom immunogenicity data were available excluding participants with major protocol deviations expected to impact the immunogenicity outcomes. Here, "N" (Number of participants analyzed) signifies participants evaluable for this endpoint and "n" signifies those participants who were evaluable at specified categories.

End point type	Secondary

End point timeframe:

Baseline (Day 1, pre-vaccination) and Days 30 and 181

Notes:

[43] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: The data was planned for specified baseline arms only.

End point values	Cohort 1: Low Dose ExPEC10V	Cohort 1: Medium Dose ExPEC10V	Cohort 1: High Dose ExPEC10V	Cohort 1: ExPEC4V
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	101	98	100	48
Units: Ratio				
geometric mean (confidence interval 95%)				
Day 30: Serotype O1A (n =101, 98, 100, 48, 51)	4.05 (3.466 to 4.740)	5.17 (4.284 to 6.242)	5.28 (4.405 to 6.325)	5.54 (4.082 to 7.524)
Day 30: Serotype O2 (n =101, 98, 100, 48, 51)	9.16 (7.714 to 10.884)	9.20 (7.551 to 11.215)	12.00 (10.318 to 13.957)	11.53 (8.447 to 15.729)
Day 30: Serotype O4 (n =101, 98, 100, 48, 51)	6.19 (4.989 to 7.677)	4.85 (4.007 to 5.873)	8.50 (6.996 to 10.327)	1.08 (1.024 to 1.146)
Day 30: Serotype O6A (n =101, 98, 100, 48, 51)	3.21 (2.745 to 3.750)	4.08 (3.355 to 4.952)	4.67 (3.988 to 5.467)	3.93 (2.991 to 5.156)
Day 30: Serotype O8 (n =101, 98, 100, 48, 51)	3.51 (3.065 to 4.013)	3.28 (2.810 to 3.836)	4.01 (3.437 to 4.673)	1.11 (1.054 to 1.174)
Day 30: Serotype O15 (n =101, 98, 100, 48, 51)	5.43 (4.559 to 6.458)	4.99 (4.152 to 6.003)	5.78 (4.842 to 6.910)	1.03 (0.959 to 1.098)
Day 30: Serotype O16 (n =101, 98, 100, 48, 51)	5.05 (4.318 to 5.912)	3.98 (3.292 to 4.805)	6.60 (5.577 to 7.802)	1.08 (1.016 to 1.149)

Day 30: Serotype O18A (n =101, 98, 100, 48, 51)	3.73 (3.158 to 4.395)	3.35 (2.777 to 4.038)	4.83 (4.067 to 5.737)	1.05 (0.986 to 1.116)
Day 30: Serotype O25B (n =101, 98, 100, 48, 51)	5.48 (4.481 to 6.695)	8.60 (6.697 to 11.044)	7.00 (5.596 to 8.766)	8.70 (6.293 to 12.038)
Day 30: Serotype O75 (n =101, 98, 100, 48, 51)	2.20 (1.915 to 2.534)	2.04 (1.749 to 2.373)	2.75 (2.344 to 3.238)	1.06 (0.949 to 1.177)
Day 30: Serotype EPA (n =99, 93, 99, 48, 48)	9.97 (7.72 to 12.89)	10.98 (8.16 to 14.76)	10.26 (7.85 to 13.42)	10.03 (6.52 to 15.45)
Day 181: Serotype O1A (n =101, 98, 100, 48, 51)	3.07 (2.598 to 3.626)	4.05 (3.272 to 5.019)	4.23 (3.442 to 5.201)	4.08 (3.055 to 5.447)
Day 181: Serotype O2 (n =101, 98, 100, 48, 51)	6.14 (5.076 to 7.438)	6.67 (5.312 to 8.382)	9.38 (7.788 to 11.309)	9.04 (6.375 to 12.817)
Day 181: Serotype O4 (n =101, 98, 100, 48, 51)	3.74 (2.949 to 4.734)	2.97 (2.478 to 3.567)	4.54 (3.753 to 5.496)	1.04 (0.968 to 1.125)
Day 181: Serotype O6A (n =101, 98, 100, 48, 51)	2.10 (1.785 to 2.477)	2.90 (2.382 to 3.532)	3.15 (2.656 to 3.738)	2.69 (2.084 to 3.480)
Day 181: Serotype O8 (n =101, 98, 100, 48, 51)	2.47 (2.155 to 2.841)	2.52 (2.135 to 2.974)	3.14 (2.673 to 3.698)	1.11 (0.990 to 1.242)
Day 181: Serotype O15 (n =101, 98, 100, 48, 51)	3.93 (3.213 to 4.812)	3.84 (3.160 to 4.671)	4.21 (3.470 to 5.107)	1.06 (0.931 to 1.203)
Day 181: Serotype O16 (n =101, 98, 100, 48, 51)	3.30 (2.752 to 3.955)	2.89 (2.361 to 3.530)	4.75 (3.969 to 5.685)	1.06 (0.946 to 1.182)
Day 181: Serotype O18A (n =101, 98, 100, 48, 51)	2.59 (2.192 to 3.049)	2.48 (2.061 to 2.986)	2.96 (2.481 to 3.544)	0.98 (0.911 to 1.062)
Day 181: Serotype O25B (n =101, 98, 100, 48, 51)	3.61 (2.920 to 4.468)	5.35 (4.133 to 6.918)	3.88 (3.114 to 4.841)	4.67 (3.387 to 6.429)
Day 181: Serotype O75 (n =101, 98, 100, 48, 51)	1.59 (1.417 to 1.790)	1.54 (1.339 to 1.776)	2.07 (1.764 to 2.430)	0.92 (0.829 to 1.014)
Day 181: Serotype EPA (n =76, 75, 80, 43, 37)	4.74 (3.58 to 6.28)	5.61 (4.11 to 7.66)	4.46 (3.46 to 5.75)	5.37 (3.66 to 7.89)

End point values	Cohort 1: Prevnar 13			
Subject group type	Reporting group			
Number of subjects analysed	51			
Units: Ratio				
geometric mean (confidence interval 95%)				
Day 30: Serotype O1A (n =101, 98, 100, 48, 51)	1.31 (1.129 to 1.520)			
Day 30: Serotype O2 (n =101, 98, 100, 48, 51)	1.05 (0.979 to 1.116)			
Day 30: Serotype O4 (n =101, 98, 100, 48, 51)	1.33 (1.115 to 1.588)			
Day 30: Serotype O6A (n =101, 98, 100, 48, 51)	1.01 (0.938 to 1.088)			
Day 30: Serotype O8 (n =101, 98, 100, 48, 51)	1.16 (1.040 to 1.288)			
Day 30: Serotype O15 (n =101, 98, 100, 48, 51)	1.36 (1.184 to 1.560)			
Day 30: Serotype O16 (n =101, 98, 100, 48, 51)	1.14 (1.059 to 1.230)			
Day 30: Serotype O18A (n =101, 98, 100, 48, 51)	1.13 (1.004 to 1.275)			
Day 30: Serotype O25B (n =101, 98, 100, 48, 51)	1.03 (0.933 to 1.141)			
Day 30: Serotype O75 (n =101, 98, 100, 48, 51)	1.03 (0.915 to 1.149)			

Day 30: Serotype EPA (n =99, 93, 99, 48, 48)	0.97 (0.95 to 0.99)			
Day 181: Serotype O1A (n =101, 98, 100, 48, 51)	1.23 (1.045 to 1.445)			
Day 181: Serotype O2 (n =101, 98, 100, 48, 51)	1.07 (0.990 to 1.162)			
Day 181: Serotype O4 (n =101, 98, 100, 48, 51)	1.21 (1.032 to 1.429)			
Day 181: Serotype O6A (n =101, 98, 100, 48, 51)	0.93 (0.853 to 1.006)			
Day 181: Serotype O8 (n =101, 98, 100, 48, 51)	1.17 (1.022 to 1.341)			
Day 181: Serotype O15 (n =101, 98, 100, 48, 51)	1.24 (1.071 to 1.426)			
Day 181: Serotype O16 (n =101, 98, 100, 48, 51)	1.11 (1.024 to 1.195)			
Day 181: Serotype O18A (n =101, 98, 100, 48, 51)	1.10 (1.005 to 1.206)			
Day 181: Serotype O25B (n =101, 98, 100, 48, 51)	0.99 (0.895 to 1.104)			
Day 181: Serotype O75 (n =101, 98, 100, 48, 51)	0.92 (0.851 to 0.984)			
Day 181: Serotype EPA (n =76, 75, 80, 43, 37)	0.95 (0.92 to 0.98)			

Statistical analyses

No statistical analyses for this end point

Secondary: Cohort 1: Percentage of Participants With a >= 2-Fold and >=4-Fold Increase From Baseline in Serotype-specific Serum Antibody Titers as Measured by Multiplex ECL Based Immunoassay on Days 30 and 181

End point title	Cohort 1: Percentage of Participants With a >= 2-Fold and >=4-Fold Increase From Baseline in Serotype-specific Serum Antibody Titers as Measured by Multiplex ECL Based Immunoassay on Days 30 and 181[44]

End point description:

Percentage of participants with a >=2-fold and >=4-fold increase from baseline in serotype (ST)-specific serum antibody titers as measured by multiplex ECL based immunoassay on Days 30 and 181 was reported. The fold (>=2-fold and >=4-fold) increase from baseline to Days 30 and 181 for the serotypes O1A, O2, O4, O6A, O8, O15, O16, O18A, O25B, O75 and EPA was calculated as the ratio of titer values of serum antibody on Day 30 and Day 181 and pre-vaccination (on Day 1 that is, Day 30/Day 1 and Day 181/Day 1. PPI analysis set included all randomized and vaccinated participants, for whom immunogenicity data were available excluding participants with major protocol deviations expected to impact the immunogenicity outcomes. Here, "N" (Number of participants analyzed) signifies participants evaluable for this endpoint and "n" signifies those participants who were evaluable at specified categories.

End point type	Secondary

End point timeframe:

Day 1 (pre-vaccination) and Days 30 and 181

Notes:

[44] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: The data was planned for specified baseline arms only.

End point values	Cohort 1: Low Dose ExPEC10V	Cohort 1: Medium Dose ExPEC10V	Cohort 1: High Dose ExPEC10V	Cohort 1: ExPEC4V
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	101	98	100	48
Units: Percentage of participants				
number (confidence interval 95%)				
Day 30: O1A: >= 2 FI (n=101, 98, 100, 48, 51)	78.8 (69.42 to 86.36)	82.8 (73.57 to 89.83)	80.8 (71.66 to 88.03)	77.1 (62.69 to 87.97)
Day 30: O1A: >= 4 FI (n =101, 98, 100, 48, 51)	53.5 (43.23 to 63.62)	62.4 (51.72 to 72.21)	63.6 (53.36 to 73.07)	64.6 (49.46 to 77.84)
Day 30: O2: >= 2 FI (n =101, 98, 100, 48, 51)	93.9 (87.27 to 97.74)	91.4 (83.75 to 96.21)	98.0 (92.89 to 99.75)	89.6 (77.34 to 96.53)
Day 30: O2: >= 4 FI (n =101, 98, 100, 48, 51)	83.8 (75.09 to 90.47)	79.6 (69.95 to 87.23)	91.9 (84.70 to 96.45)	79.2 (65.01 to 89.53)
Day 30: O4: >= 2 FI (n =101, 98, 100, 48, 51)	79.8 (70.54 to 87.20)	81.7 (72.35 to 88.98)	88.9 (80.9 to 94.32)	0.0 (0.00 to 7.40)
Day 30: O4: >= 4 FI (n =101, 98, 100, 48, 51)	61.6 (51.30 to 71.22)	59.1 (48.46 to 69.23)	75.8 (66.11 to 83.81)	0.0 (0.00 to 7.40)
Day 30: O6A: >= 2 FI (n =101, 98, 100, 48, 51)	63.6 (53.36 to 73.07)	74.2 (64.08 to 82.71)	80.8 (71.66 to 88.03)	72.9 (58.15 to 84.72)
Day 30: O6A: >= 4 FI (n =101, 98, 100, 48, 51)	38.4 (28.78 to 48.70)	48.4 (37.89 to 58.99)	61.6 (51.30 to 71.22)	45.8 (31.37 to 60.83)
Day 30: O8 : >= 2 FI (n =101, 98, 100, 48, 51)	77.8 (68.31 to 85.52)	68.8 (58.37 to 78.02)	73.7 (63.93 to 82.07)	0.0 (0.00 to 7.40)
Day 30:O8: >= 4 FI (n =101, 98, 100, 48, 51)	41.4 (31.60 to 51.76)	36.6 (26.81 to 47.19)	55.6 (45.22 to 65.55)	0.0 (0.00 to 7.40)
Day 30: O15: >= 2 FI (n =101, 98, 100, 48, 51)	86.9 (78.59 to 92.82)	80.6 (71.15 to 88.11)	83.8 (75.09 to 90.47)	2.1 (0.05 to 11.07)
Day 30: O15: >= 4 FI (n =101, 98, 100, 48, 51)	54.5 (44.23 to 64.59)	63.4 (52.81 to 73.19)	64.6 (54.40 to 73.99)	0.0 (0.00 to 7.40)
Day 30: O16: >= 2 FI (n =101, 98, 100, 48, 51)	86.9 (78.59 to 92.82)	72.0 (61.78 to 80.86)	86.9 (78.59 to 92.82)	0.0 (0.00 to 7.40)
Day 30: O16: >= 4 FI (n =101, 98 100, 48, 51)	60.6 (50.28 to 70.28)	49.5 (38.93 to 60.03)	72.7 (62.85 to 81.20)	0.0 (0.00 to 7.40)
Day 30: O18A: >= 2 FI (n =101, 98, 100, 48, 51)	73.7 (63.93 to 82.07)	64.5 (53.91 to 74.17)	80.8 (71.66 to 88.03)	0.0 (0.00 to 7.40)
Day 30: O18A: >= 4 FI (n =101, 98, 100, 48, 51)	47.5 (37.34 to 57.76)	37.6 (27.79 to 48.28)	60.6 (50.28 to 70.28)	0.0 (0.00 to 7.40)
Day 30: O25B: >= 2 FI (n =101, 98, 99, 48, 51)	81.8 (72.80 to 88.85)	84.9 (76.03 to 91.52)	83.8 (75.09 to 90.47)	87.5 (74.75 to 95.27)
Day 30: O25B: >= 4 FI (n =101, 98, 99, 48, 51)	60.6 (50.28 to 70.28)	75.3 (65.24 to 83.63)	67.7 (57.53 to 76.73)	75.0 (60.40 to 86.36)
Day 30: O75: >= 2 FI (n =101, 98, 100, 48, 51)	48.5 (38.32 to 58.75)	43.0 (32.78 to 53.69)	59.6 (49.26 to 69.34)	4.2 (0.51 to 14.25)
Day 30: O75: >= 4 FI (n =101, 98, 100, 48, 51)	19.2 (11.9 to 28.34)	22.6 (14.55 to 32.42)	28.3 (19.69 to 38.22)	4.2 (0.51 to 14.25)
Day 30: EPA: >= 2 FI (n =99, 93, 99, 48, 48)	86.9 (78.59 to 92.82)	80.6 (71.15 to 88.11)	85.9 (77.41 to 92.05)	77.1 (62.69 to 87.97)
Day 30: EPA: >= 4 FI (n =99, 93, 99, 48, 48)	73.7 (63.93 to 82.07)	74.2 (64.08 to 82.71)	75.8 (66.11 to 83.81)	72.9 (58.15 to 84.72)
Day 181: O1A: >= 2 FI (n=101, 98, 100, 48, 51)	64.5 (52.66 to 75.12)	73.3 (61.86 to 82.89)	72.5 (61.38 to 81.90)	67.4 (51.46 to 80.92)
Day 181: O1A:>= 4 FI (n=101,98,100, 48, 51)	35.5 (24.88 to 47.34)	49.3 (37.58 to 61.14)	51.3 (39.81 to 62.59)	51.2 (35.46 to 66.69)
Day 181: O2: >= 2 FI (n=101, 98, 100, 48, 51)	89.5 (80.31 to 95.34)	86.7 (76.84 to 93.42)	92.5 (84.39 to 97.20)	83.7 (69.30 to 93.19)
Day 181:O2: >= 4 FI (n=101, 98, 100, 48, 51)	69.7 (58.13 to 79.75)	70.7 (59.02 to 80.62)	83.8 (73.82 to 91.05)	74.4 (58.83 to 86.48)
Day 181: O4: >= 2 FI (n=101, 98, 100, 48, 51)	68.4 (56.75 to 78.61)	65.3 (53.46 to 75.96)	81.3 (70.97 to 89.11)	2.3 (0.06 to 12.29)

Day 181: O4: >=4 FI (n=101, 98, 100, 48, 51)	43.4 (32.08 to 55.29)	33.3 (22.86 to 45.17)	55.0 (43.47 to 66.15)	0.0 (0.00 to 8.22)
Day 181: O6A: >=2 FI (n=101, 98, 100, 48, 51)	46.1 (34.55 to 57.87)	60.0 (48.04 to 71.15)	67.5 (56.11 to 77.55)	55.8 (39.88 to 70.9)
Day 181: O6A: >=4 FI (n=101, 98, 100, 48, 51)	18.4 (10.45 to 28.97)	33.3 (22.86 to 45.17)	33.8 (23.55 to 45.19)	32.6 (19.08 to 48.54)
Day 181: O8: >= 2 FI (n=101, 98, 100, 48, 51)	60.5 (48.65 to 71.56)	56.0 (44.06 to 67.45)	65.0 (53.52 to 75.33)	9.3 (2.59 to 22.14)
Day 181: O8: >= 4 FI (n=101, 98, 100, 48, 51)	17.1 (9.43 to 27.47)	24.0 (14.89 to 35.25)	37.5 (26.92 to 49.04)	0.0 (0.00 to 8.22)
Day 181: O15: >= 2 FI (n=101, 98, 100, 48, 51)	73.7 (62.32 to 83.13)	76.0 (64.75 to 85.11)	81.3 (70.97 to 89.11)	4.7 (0.57 to 15.81)
Day 181:O15: >= 4 FI (n=101, 98, 100, 48, 51)	44.7 (33.31 to 56.59)	49.3 (37.58 to 61.14)	45.0 (33.85 to 56.53)	2.3 (0.06 to 12.29)
Day 181: O16: >= 2 FI (n=101, 98, 100, 48, 51)	72.4 (60.91 to 82.01)	60.0 (48.04 to 71.15)	87.5 (78.21 to 93.84)	4.7 (0.57 to 15.81)
Day 181: O16: >= 4 FI (n=101, 98, 100, 48, 51)	36.8 (26.06 to 48.69)	36.0 (25.23 to 47.91)	56.3 (44.70 to 67.32)	2.3 (0.06 to 12.29)
Day 181: O18A: >=2 FI (n=101, 98, 100, 48, 51)	63.2 (51.3 to 73.9)	52.0 (40.15 to 63.69)	60.0 (48.44 to 70.80)	0.0 (0.00 to 8.22)
Day 181: O18A: >= 4 FI (n=101, 98, 100, 48, 51)	23.7 (14.68 to 34.82)	25.3 (15.99 to 36.70)	33.8 (23.55 to 45.19)	0.0 (0.00 to 8.22)
Day 181: O25B:>=2FI (n=101, 98, 100, 48, 51)	67.1 (55.37 to 77.46)	74.7 (63.30 to 84.01)	72.5 (61.38 to 81.90)	76.7 (61.37 to 88.24)
Day 181: O25B:>= 4FI(n=101, 98, 100, 48, 51)	44.7 (33.31 to 56.59)	56.0 (44.06 to 67.45)	42.5 (31.51 to 54.06)	51.2 (35.46 to 66.69)
Day 181: O75: >=2 FI (n=101, 98, 100, 48, 51)	26.3 (16.87 to 37.68)	26.7 (17.11 to 38.14)	45.0 (33.85 to 56.53)	2.3 (0.06 to 12.29)
Day 181: O75: >=4 FI (n=101, 98, 100, 48, 51)	5.3 (1.45 to 12.93)	10.7 (4.72 to 19.9)	13.8 (7.07 to 23.27)	0.0 (0.00 to 8.22)
Day 181: EPA: >=2 FI (n=76, 75, 80, 43, 37)	72.4 (60.91 to 82.01)	70.7 (59.02 to 80.62)	71.3 (60.05 to 80.82)	76.7 (61.37 to 88.24)
Day 181: EPA: >=4 FI (n=76, 75, 80, 43, 37)	51.3 (39.57 to 62.96)	57.3 (45.38 to 68.69)	47.5 (36.21 to 58.98)	55.8 (39.88 to 70.92)

End point values	Cohort 1: Prevnar 13			
Subject group type	Reporting group			
Number of subjects analysed	51			
Units: Percentage of participants				
number (confidence interval 95%)				
Day 30: O1A: >= 2 FI (n=101, 98, 100, 48, 51)	12.5 (4.73 to 25.25)			
Day 30: O1A: >= 4 FI (n =101, 98, 100, 48, 51)	4.2 (0.51 to 14.25)			
Day 30: O2: >= 2 FI (n =101, 98, 100, 48, 51)	0.0 (0.00 to 7.40)			
Day 30: O2: >= 4 FI (n =101, 98, 100, 48, 51)	0.0 (0.00 to 7.40)			
Day 30: O4: >= 2 FI (n =101, 98, 100, 48, 51)	12.5 (4.73 to 25.25)			
Day 30: O4: >= 4 FI (n =101, 98, 100, 48, 51)	4.2 (0.51 to 14.25)			
Day 30: O6A: >= 2 FI (n =101, 98, 100, 48, 51)	0.0 (0.00 to 7.40)			
Day 30: O6A: >= 4 FI (n =101, 98, 100, 48, 51)	0.0 (0.00 to 7.40)			

Day 30: O8 : >= 2 FI (n =101, 98, 100, 48, 51)	2.1 (0.05 to 11.07)			
Day 30:O8: >= 4 FI (n =101, 98, 100, 48, 51)	2.1 (0.05 to 11.07)			
Day 30: O15: >= 2 FI (n =101, 98, 100, 48, 51)	14.6 (6.07 to 27.76)			
Day 30: O15: >= 4 FI (n =101, 98, 100, 48, 51)	6.3 (1.31 to 17.20)			
Day 30: O16: >= 2 FI (n =101, 98, 100, 48, 51)	2.1 (0.05 to 11.07)			
Day 30: O16: >= 4 FI (n =101, 98 100, 48, 51)	0.0 (0.00 to 7.40)			
Day 30: O18A: >= 2 FI (n =101, 98, 100, 48, 51)	4.2 (0.51 to 14.25)			
Day 30: O18A: >= 4 FI (n =101, 98, 100, 48, 51)	2.1 (0.05 to 11.07)			
Day 30: O25B: >= 2 FI (n =101, 98, 99, 48, 51)	4.2 (0.51 to 14.25)			
Day 30: O25B: >= 4 FI (n =101, 98, 99, 48, 51)	2.1 (0.05 to 11.07)			
Day 30: O75: >= 2 FI (n =101, 98, 100, 48, 51)	2.1 (0.05 to 11.07)			
Day 30: O75: >= 4 FI (n =101, 98, 100, 48, 51)	2.1 (0.05 to 11.07)			
Day 30: EPA: >= 2 FI (n =99, 93, 99, 48, 48)	0.0 (0.00 to 7.40)			
Day 30: EPA: >= 4 FI (n =99, 93, 99, 48, 48)	0.0 (0.00 to 7.40)			
Day 181: O1A: >= 2 FI (n=101, 98, 100, 48, 51)	10.8 (3.03 to 25.42)			
Day 181: O1A:>= 4 FI (n=101,98,100, 48, 51)	5.4 (0.66 to 18.19)			
Day 181: O2: >= 2 FI (n=101, 98, 100, 48, 51)	0.0 (0.00 to 9.49)			
Day 181:O2: >= 4 FI (n=101, 98, 100, 48, 51)	0.0 (0.00 to 9.49)			
Day 181: O4: >= 2 FI (n=101, 98, 100, 48, 51)	5.4 (0.66 to 18.19)			
Day 181: O4: >=4 FI (n=101, 98, 100, 48, 51)	5.4 (0.66 to 18.19)			
Day 181: O6A: >=2 FI (n=101, 98, 100, 48, 51)	0.0 (0.00 to 9.49)			
Day 181: O6A: >=4 FI (n=101, 98, 100, 48, 51)	0.0 (0.00 to 9.49)			
Day 181: O8: >= 2 FI (n=101, 98, 100, 48, 51)	5.4 (0.66 to 18.19)			
Day 181: O8: >= 4 FI (n=101, 98, 100, 48, 51)	2.7 (0.07 to 14.16)			
Day 181: O15: >= 2 FI (n=101, 98, 100, 48, 51)	8.1 (1.70 to 21.91)			
Day 181:O15: >= 4 FI (n=101, 98, 100, 48, 51)	2.7 (0.07 to 14.16)			
Day 181: O16: >= 2 FI (n=101, 98, 100, 48, 51)	0.0 (0.00 to 9.49)			
Day 181: O16: >= 4 FI (n=101, 98, 100, 48, 51)	0.0 (0.00 to 9.49)			
Day 181: O18A: >=2 FI (n=101, 98, 100, 48, 51)	0.0 (0.00 to 9.49)			
Day 181: O18A: >= 4 FI (n=101, 98, 100, 48, 51)	0.0 (0.00 to 9.49)			
Day 181: O25B:>=2FI (n=101, 98, 100, 48, 51)	2.7 (0.07 to 14.16)			

Day 181: O25B:>= 4FI(n=101, 98, 100, 48, 51)	0.0 (0.00 to 9.49)			
Day 181: O75: >=2 FI (n=101, 98, 100, 48, 51)	0.0 (0.00 to 9.49)			
Day 181: O75: >=4 FI (n=101, 98, 100, 48, 51)	0.0 (0.0 to 9.49)			
Day 181: EPA: >=2 FI (n=76, 75, 80, 43, 37)	0.0 (0.00 to 9.49)			
Day 181: EPA: >=4 FI (n=76, 75, 80, 43, 37)	0.0 (0.00 to 9.49)			

Statistical analyses

No statistical analyses for this end point

Secondary: Cohort 1: Geometric Mean Ratio (GMR) of Fold Changes From Baseline for Serotype Specific Antibodies as Measured by MOPA on Days 30 and 181

End point title	Cohort 1: Geometric Mean Ratio (GMR) of Fold Changes From Baseline for Serotype Specific Antibodies as Measured by MOPA on Days 30 and 181[45]

End point description:

GMR of fold changes from baseline for serotype specific antibodies measured by MOPA on Days 30 and 181 were reported. GMR for each antigen serotypes O1A, O2, O4, O6A, O15, O16, O18A, O25B and O75 were determined in serum from collected blood samples by MOPA. GMR of fold change from baseline was calculated as the ratio of GMTs on Days 30 and 181 and pre-vaccination (on Day 1). Data was panned to be analyzed for specified arms only. PPI analysis set was analyzed. For serotype O8 functional IgG serum antibodies were not evaluated as the assay was not able to detect vaccine-induced functional antibodies against the O8 serotype. Here, "N" (number of participants analyzed) signifies participants evaluable for this outcome measure and "n" (number analyzed) signifies those participants who were evaluable at specified categories.

End point type	Secondary

End point timeframe:

Baseline (Day 1, pre-vaccination) and Days 30 and 181

Notes:

[45] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: The data was planned for specified baseline arms only.

End point values	Cohort 1: High Dose ExPEC10V	Cohort 1: Prevnar 13		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	100	51		
Units: Ratio				
geometric mean (confidence interval 95%)				
Day 30: Serotype O1A (n =100, 51)	1.58 (1.166 to 2.153)	0.65 (0.338 to 1.238)		
Day 30: Serotype O2 (n =100, 51)	11.86 (8.298 to 16.940)	0.67 (0.408 to 1.107)		
Day 30: Serotype O4 (n =100, 51)	3.62 (2.823 to 4.642)	1.59 (0.727 to 3.493)		
Day 30: Serotype O6A (n =100, 51)	1.72 (1.319 to 2.249)	0.391 (0.391 to 2.394)		
Day 30: Serotype O15 (n =100, 51)	6.51 (4.645 to 9.134)	1.70 (0.565 to 5.140)		

Day 30: Serotype O16 (n =100, 51)	10.50 (7.958 to 13.848)	1.11 (0.676 to 1.825)		
Day 30: Serotype O18A (n =100, 51)	2.35 (1.758 to 3.146)	1.04 (0.400 to 2.715)		
Day 30: Serotype O25B (n =100, 51)	2.16 (1.771 to 2.627)	1.02 (0.972 to 1.074)		
Day 30: Serotype O75 (n =100, 51)	4.02 (2.993 to 5.405)	1.38 (0.515 to 3.689)		
Day 181: Serotype O1A (n =100, 51)	0.93 (0.732 to 1.189)	0.99 (0.530 to 1.833)		
Day 181: Serotype O2 (n =100, 51)	4.79 (3.457 to 6.649)	0.96 (0.432 to 2.120)		
Day 181: Serotype O4 (n =100, 51)	1.94 (1.575 to 2.381)	1.13 (0.447 to 2.857)		
Day 181: Serotype O6A (n =100, 51)	1.00 (0.791 to 1.257)	0.59 (0.268 to 1.304)		
Day 181: Serotype O15 (n =100, 51)	2.75 (2.034 to 3.731)	1.22 (0.616 to 2.415)		
Day 181: Serotype O16 (n =100, 51)	4.86 (3.612 to 6.550)	1.66 (1.086 to 2.551)		
Day 181: Serotype O18A (n =100, 51)	1.18 (0.920 to 1.508)	1.82 (0.584 to 5.684)		
Day 181: Serotype O25B (n =100, 51)	1.37 (1.196 to 1.572)	0.96 (0.858 to 1.070)		
Day 181: Serotype O75 (n =100, 51)	1.78 (1.402 to 2.269)	0.89 (0.406 to 1.962)		

Statistical analyses

No statistical analyses for this end point

Secondary: Cohort 1: Geometric Mean Titers (GMTs) of Serotype-specific Total Immunoglobulin G (IgG) Serum Antibodies as Measured by MOPA on Days 30 and 181

End point title	Cohort 1: Geometric Mean Titers (GMTs) of Serotype-specific Total Immunoglobulin G (IgG) Serum Antibodies as Measured by MOPA on Days 30 and 181[46]

End point description:

GMTs of serotype-specific total IgG serum antibodies as measured by MOPA on Days 30 and 181 were reported. GMTs for each antigen serotypes O1A, O2, O4, O6A,O15, O16, O18A, O25B and O75 were determined in serum from collected blood samples. PPI analysis set was analyzed. For serotype O8 functional IgG serum antibodies were not evaluated as the assay was not able to detect vaccine-induced functional antibodies against the O8 serotype. Here, "N" (number of participants analyzed) signifies participants evaluable for this endpoint and "n" (number analyzed) signifies those participants who were evaluable at specified categories. Here 9.9999 signifies geometric mean and lower limit of 95% CI could not be estimated as the value was below the LLOQ, that is, O1A: 33, O2: 42, O4: 12, O6A: 62, O15: 75, O16: 17, O18A: 44, O25B: 58, O75: 14.

End point type	Secondary

End point timeframe:

Days 30 and 181

Notes:

[46] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: The data was planned for specified baseline arms only.

End point values	Cohort 1: Low Dose ExPEC10V	Cohort 1: Medium Dose ExPEC10V	Cohort 1: High Dose ExPEC10V	Cohort 1: ExPEC4V
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	101	98	100	48
Units: Titer				
geometric mean (confidence interval 95%)				
Day 30: Serotype O1A (n =101, 98, 100, 48, 51)	485.7 (383.6 to 615.0)	452.6 (343.0 to 597.3)	517.3 (383.9 to 697.0)	815.3 (545.7 to 1217.9)
Day 30: Serotype O2 (n =101, 98, 100, 48, 51)	2189.0 (1618.1 to 2961.3)	2533.1 (1768.1 to 3629.1)	4431.3 (3143.2 to 6247.3)	3748.8 (2391.6 to 5876.4)
Day 30: Serotype O4 (n =101, 98, 100, 48, 51)	609.5 (470.2 to 790.2)	562.1 (431.7 to 731.9)	667.1 (518.0 to 859.1)	236.2 (177.7 to 313.9)
Day 30: Serotype O6A (n =101, 98, 100, 48, 51)	740.5 (574.6 to 954.4)	1123.7 (864.6 to 1460.4)	994.7 (763.8 to 1295.3)	1067.7 (718.9 to 1585.6)
Day 30: Serotype O15 (n =101, 98, 100, 48, 51)	2423.3 (1767.9 to 3321.7)	2403.7 (1744.4 to 3312.2)	2658.9 (1931.1 to 3660.8)	477.8 (341.5 to 668.4)
Day 30: Serotype O16 (n =101, 98, 100, 48, 51)	987.0 (727.8 to 1338.5)	1005.1 (701.4 to 1440.3)	1465.5 (1085.3 to 1978.8)	107.5 (74.6 to 155.0)
Day 30: Serotype O18A (n =101, 98, 100, 48, 51)	523.5 (412.6 to 664.2)	538.3 (402.8 to 719.3)	592.9 (451.5 to 778.7)	226.5 (155.7 to 329.5)
Day 30: Serotype O25B (n =101, 98, 100, 48, 51)	118.2 (91.1 to 153.4)	168.8 (122.2 to 233.1)	134.0 (103.5 to 173.4)	140.2 (97.0 to 202.6)
Day 30: Serotype O75 (n =101, 98, 100, 48, 51)	221.2 (176.2 to 277.7)	148.5 (111.8 to 197.2)	246.4 (177.5 to 342.1)	71.9 (50.4 to 102.7)
Day 181: Serotype O1A (n =101, 98, 100, 48, 51)	369.0 (290.7 to 468.3)	249.1 (194.9 to 318.4)	291.5 (215.3 to 394.7)	466.6 (311.9 to 698.0)
Day 181: Serotype O2 (n =101, 98, 100, 48, 51)	1196.5 (869.4 to 1646.7)	1076.4 (777.7 to 1489.8)	1887.2 (1313.0 to 2712.4)	1687.3 (1057.5 to 2692.1)
Day 181: Serotype O4 (n =101, 98, 100, 48, 51)	340.9 (259.8 to 447.3)	298.9 (231.5 to 385.9)	330.5 (263.7 to 414.2)	190.5 (140.6 to 258.2)
Day 181: Serotype O6A (n =101, 98, 100, 48, 51)	616.9 (469.9 to 809.8)	773.5 (580.5 to 1030.7)	599.4 (454.6 to 790.3)	623.3 (383.9 to 1012.0)
Day 181: Serotype O15 (n =101, 98, 100, 48, 51)	1053.1 (724.1 to 1531.6)	1431.8 (1014.1 to 2021.6)	1110.1 (832.6 to 1480.0)	347.7 (240.4 to 503.0)
Day 181: Serotype O16 (n =101, 98, 100, 48, 51)	546.7 (386.5 to 773.2)	426.9 (298.6 to 610.3)	656.3 (474.2 to 908.5)	102.5 (73.3 to 143.3)
Day 181: Serotype O18A (n =101, 98, 100, 48, 51)	309.4 (242.6 to 394.7)	341.3 (255.5 to 455.9)	291.6 (221.1 to 384.5)	176.9 (123.3 to 253.7)
Day 181: Serotype O25B (n =101, 98, 100, 48, 51)	75.4 (60.1 to 94.6)	84.3 (65.6 to 108.3)	74.1 (58.4 to 94.0)	67.8 (9.9999 to 93.0)
Day 181: Serotype O75 (n =101, 98, 100, 48, 51)	121.7 (95.8 to 154.8)	72.4 (55.6 to 94.1)	103.1 (79.1 to 134.5)	40.3 (28.6 to 56.9)

End point values	Cohort 1: Prevnar 13			
Subject group type	Reporting group			
Number of subjects analysed	51			
Units: Titer				
geometric mean (confidence interval 95%)				

Day 30: Serotype O1A (n =101, 98, 100, 48, 51)	300.8 (215.4 to 420.1)			
Day 30: Serotype O2 (n =101, 98, 100, 48, 51)	270.4 (201.1 to 363.6)			
Day 30: Serotype O4 (n =101, 98, 100, 48, 51)	193.3 (152.8 to 244.7)			
Day 30: Serotype O6A (n =101, 98, 100, 48, 51)	519.9 (339.3 to 796.5)			
Day 30: Serotype O15 (n =101, 98, 100, 48, 51)	527.5 (345.5 to 805.4)			
Day 30: Serotype O16 (n =101, 98, 100, 48, 51)	110.4 (78.1 to 156.1)			
Day 30: Serotype O18A (n =101, 98, 100, 48, 51)	195.1 (141.5 to 269.1)			
Day 30: Serotype O25B (n =101, 98, 100, 48, 51)	63.3 (9.9999 to 96.5)			
Day 30: Serotype O75 (n =101, 98, 100, 48, 51)	97.6 (69.8 to 136.5)			
Day 181: Serotype O1A (n =101, 98, 100, 48, 51)	254.3 (162.3 to 398.4)			
Day 181: Serotype O2 (n =101, 98, 100, 48, 51)	246.7 (173.3 to 351.3)			
Day 181: Serotype O4 (n =101, 98, 100, 48, 51)	171.5 (124.8 to 235.6)			
Day 181: Serotype O6A (n =101, 98, 100, 48, 51)	506.5 (280.3 to 915.3)			
Day 181: Serotype O15 (n =101, 98, 100, 48, 51)	438.2 (282.6 to 679.5)			
Day 181: Serotype O16 (n =101, 98, 100, 48, 51)	77.9 (51.6 to 117.6)			
Day 181: Serotype O18A (n =101, 98, 100, 48, 51)	203.7 (142.8 to 290.6)			
Day 181: Serotype O25B (n =101, 98, 100, 48, 51)	9.9999 (-9.9999 to 69.1)			
Day 181: Serotype O75 (n =101, 98, 100, 48, 51)	55.1 (38.0 to 80.1)			

Statistical analyses

No statistical analyses for this end point

Secondary: Cohort 1: Percentage of Participants With a >= 2-Fold and >=4-Fold Increase in Serotype-specific Serum Antibody Titers Measured by MOPA on Days 30 and 181

End point title	Cohort 1: Percentage of Participants With a >= 2-Fold and >=4-Fold Increase in Serotype-specific Serum Antibody Titers Measured by MOPA on Days 30 and 181[47]

End point description:

Percentage of participants with a >=2-fold and >=4-fold increase in serotype-specific serum antibody titers measured by MOPA on Days 30 and 181 was reported. The fold (>=2-fold and >=4-fold) increase from baseline to Days 30 and 181 for the serotypes O1A, O2, O4, O6A, O15, O16, O18A, O25B, and O75 was calculated as the ratio of titer values of serum antibody on Days 30 and 181 and pre-vaccination (on day 1 that is, Day 30/Day 1 and 181/Day 1). Data was planned to be analyzed for specified arms only. PPI analysis set was analyzed. For serotype O8 functional IgG serum antibodies were not evaluated as the assay was not able to detect vaccine-induced functional antibodies against the O8 serotype. Here, "N" (Number of participants analyzed) signifies participants evaluable for this endpoint and "n" signifies those participants who were evaluable at specified categories.

End point type	Secondary

End point timeframe:

Day 1 (pre-vaccination) and Days 30 and 181

Notes:

[47] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.

Justification: The data was planned for specified baseline arms only.

End point values	Cohort 1: High Dose ExPEC10V	Cohort 1: Prevnar 13		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	100	51		
Units: Percentage of participants				
number (confidence interval 95%)				
Day 30:ST O1A: >= 2 FI (n=100,51)	33.7 (24.31 to 44.11)	11.1 (0.28 to 48.25)		
Day 30:ST O1A: >= 4 FI (n=100,51)	24.2 (16.01 to 34.08)	0.0 (0.00 to 33.63)		
Day 30: ST O2: >= 2 FI (n=100,51)	80.0 (70.54 to 87.51)	0.0 (0.00 to 33.63)		
Day 30: ST O2: >= 4 FI (n=100,51)	73.7 (63.65 to 82.19)	0.0 (0.00 to 33.63)		
Day 30: ST O4: >= 2 FI (n=100,51)	63.2 (52.64 to 72.83)	33.3 (7.49 to 70.07)		
Day 30: ST O4: >= 4 FI (n=100,51)	43.2 (33.03 to 53.72)	33.3 (7.49 to 70.07)		
Day 30: ST O6A: >= 2 FI (n=100,51)	35.8 (26.21 to 46.28)	22.2 (2.81 to 60.01)		
Day 30: ST O6A: >= 4 FI (n=100,51)	23.2 (15.12 to 32.94)	11.1 (0.28 to 48.25)		
Day 30: ST O15: >= 2 FI (n=100,51)	67.4 (56.98 to 76.64)	33.3 (7.49 to 70.07)		
Day 30: ST O15: >= 4 FI (n=100,51)	53.7 (43.15 to 63.98)	22.2 (2.81 to 60.01)		
Day 30: ST O16: >= 2 FI (n=100,51)	89.4 (81.30 to 94.78)	22.2 (2.81 to 60.01)		
Day 30: ST O16: >= 4 FI (n=100,51)	73.4 (63.29 to 81.99)	0.0 (0.00 to 33.63)		
Day 30: ST O18A: >= 2 FI (n=100,51)	50.5 (40.07 to 60.95)	22.2 (2.81 to 60.01)		
Day 30: ST O18A: >= 4 FI (n=100,51)	33.7 (24.31 to 44.11)	11.1 (0.28 to 48.25)		
Day 30: ST O25B: >= 2 FI (n=100,51)	41.5 (31.41 to 52.12)	0.0 (0.00 to 33.63)		
Day 30: ST O25B: >= 4 FI (n=100,51)	22.3 (14.39 to 32.10)	0.0 (0.00 to 33.63)		
Day 30: ST O75: >= 2 FI (n=100,51)	65.3 (54.80 to 74.74)	33.3 (7.49 to 70.07)		
Day 30: ST O75: >= 4 FI (n=100,51)	44.2 (34.02 to 54.77)	22.2 (2.81 to 60.01)		
Day 181:ST O1A: >= 2 FI (n=100,51)	15.4 (8.21 to 25.33)	16.7 (0.42 to 64.12)		
Day 181:ST O1A: >= 4 FI (n=100,51)	10.3 (4.53 to 19.21)	0.0 (0.00 to 45.93)		
Day 181:ST O2: >= 2 FI (n=100,51)	67.9 (56.42 to 78.07)	16.7 (0.42 to 64.12)		
Day 181:ST O2: >= 4 FI (n=100,51)	51.3 (39.69 to 62.77)	0.0 (0.00 to 45.93)		
Day 181:ST O4: >= 2 FI (n=100,51)	51.3 (39.69 to 62.77)	33.3 (4.33 to 77.72)		

Day 181:ST O4: >= 4 FI (n=100,51)	23.1 (14.29 to 34.00)	0.0 (0.00 to 45.93)		
Day 181:ST O6A: >= 2 FI (n=100,51)	23.1 (14.29 to 34.00)	0.0 (0.00 to 45.93)		
Day 181:ST O6A: >= 4 FI (n=100,51)	10.3 (4.53 to 19.21)	0.0 (0.00 to 45.93)		
Day 181:ST O15: >= 2 FI (n=100,51)	56.4 (44.70 to 67.61)	33.3 (4.33 to 77.72)		
Day 181:ST O15: >= 4 FI (n=100,51)	33.3 (23.06 to 44.92)	0.0 (0.00 to 45.93)		
Day 181:ST O16: >= 2 FI (n=100,51)	75.3 (64.18 to 84.44)	33.3 (4.33 to 77.72)		
Day 181:ST O16: >= 4 FI (n=100,51)	51.9 (40.26 to 63.48)	0.0 (0.00 to 45.93)		
Day 181:ST O18A: >= 2 FI (n=100,51)	30.8 (20.81 to 42.24)	66.7 (22.28 to 95.67)		
Day 181:ST O18A: >= 4 FI (n=100,51)	10.3 (4.53 to 19.21)	33.3 (4.33 to 77.72)		
Day 181:ST O25B: >= 2 FI (n=100,51)	22.1 (13.42 to 32.98)	0.0 (0.00 to 45.93)		
Day 181:ST O25B: >= 4 FI (n=100,51)	5.2 (1.43 to 12.77)	0.0 (0.00 to 45.93)		
Day 181:ST O75: >= 2 FI (n=100,51)	47.4 (36.01 to 59.07)	16.7 (0.42 to 64.12)		
Day 181:ST O75: >= 4 FI (n=100,51)	23.1 (14.29 to 34.00)	0.0 (0.00 to 45.93)		

Statistical analyses

No statistical analyses for this end point

Secondary: Cohort 1: Number of Participants With Serious Adverse Events (SAEs) Related to Study Vaccine or Study Procedure From Day 182 up to End of Study (Day 1826)

End point title	Cohort 1: Number of Participants With Serious Adverse Events (SAEs) Related to Study Vaccine or Study Procedure From Day 182 up to End of Study (Day 1826)[48]

End point description:

Number of participants with SAEs related to study vaccine or study procedure was reported. An AE is any untoward medical occurrence in a participant participating in a clinical study that does not necessarily have a causal relationship with the pharmaceutical/biological agent understudy. An SAE is an AE resulting in any of the following outcomes or deemed significant for any other reason: death; initial or prolonged inpatient hospitalization; life-threatening experience(immediate risk of dying); persistent or significant disability/incapacity; congenital anomaly/birth defect; suspected transmission of any infectious agent via a medicinal product or medically important. The FAS included all randomized participants with a vaccine administration documented.

End point type	Secondary

End point timeframe:

From Day 182 up to end of study (Day 1826)

Notes:

[48] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: The data was planned for specified baseline arms only.

End point values	Cohort 1: Low Dose ExPEC10V	Cohort 1: Medium Dose ExPEC10V	Cohort 1: High Dose ExPEC10V	Cohort 1: ExPEC4V
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	104	102	104	52
Units: participants	0	0	0	0

End point values	Cohort 1: Prevnar 13			
Subject group type	Reporting group			
Number of subjects analysed	54			
Units: participants	0			

Statistical analyses

No statistical analyses for this end point

Secondary: Cohort 1: Geometric Mean Titers (GMTs) of Serotype-specific Total Immunoglobulin G (IgG) Serum Antibodies as Measured by Multiplex ECL Based Immunoassay on Days 366, 731, 1096, 1461 and 1826

End point title	Cohort 1: Geometric Mean Titers (GMTs) of Serotype-specific Total Immunoglobulin G (IgG) Serum Antibodies as Measured by Multiplex ECL Based Immunoassay on Days 366, 731, 1096, 1461 and 1826[49]

End point description:

GMTs of serotype-specific total IgG serum antibodies as measured by ECL based immunoassay were reported. GMTs for each antigen serotypes O1A, O2, O4, O6A, O8, O15, O16, O18A, O25B, O75 and EPA were determined in serum from collected blood samples. Data was planned to be analyzed for specified arms only. PPI analysis set included all randomized and vaccinated participants, for whom immunogenicity data were available excluding participants with major protocol deviations expected to impact the immunogenicity outcomes. Here, "N" (Overall number of participants analyzed) signifies participants evaluable for this outcome measure and "n" (number analyzed) signifies those participants who were evaluable at specified categories. 9.9999 signifies lower limit of 95% CI could not be calculated as values were below lower limit of quantification (LLOQ), that is, O1A: 69149, O2: 65287, O4: 67356, O6A: 150748, O8: 72196, O15: 66910, O16: 71586, O18A: 70519, O25B: 61990, O75: 133019, and EPA: 66165.

End point type	Secondary

End point timeframe:

Days 366, 731, 1096, 1461 and 1826

Notes:

[49] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: The data was planned for specified baseline arms only.

End point values	Cohort 1: High Dose ExPEC10V	Cohort 1: Prevnar 13		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	71	39		
Units: titer				
geometric mean (confidence interval 95%)				

Day 366: Serotype O1A (n=71,39)	3934158.7 (3201033.1 to 4835190.3)	1605160.3 (1139469.6 to 2261174.4)		
Day 731: Serotype O1A (n=62,35)	3045758.4 (2382153.2 to 3894226.5)	1143355.0 (756785.2 to 1727386.8)		
Day 1096: Serotype O1A (n=57,32)	2796702.3 (2156387.6 to 3627151.2)	1226079.9 (796412.6 to 1887554.1)		
Day 1461: Serotype O1A (n=36,17)	3061251.0 (2233370.1 to 4196016.6)	2051609.9 (1151725.0 to 3654607.7)		
Day 1826: Serotype O1A (n=35,17)	2510326.1 (1749766.6 to 3601472.9)	1415585.1 (729252.3 to 2747857.2)		
Day 366: Serotype O2 (n=71,39)	3550164.5 (2808076.4 to 4488363.6)	558977.9 (422941.4 to 738769.7)		
Day 731: Serotype O2 (n=62,35)	3625183.6 (2836267.9 to 4633538.3)	694262.8 (464778.4 to 1037055.1)		
Day 1096: Serotype O2 (n=57,32)	3629211.5 (2829177.2 to 4655479.5)	686457.3 (441411.8 to 1067537.5)		
Day 1461: Serotype O2 (n=36,17)	3659457.8 (2685565.0 to 4986523.1)	833384.9 (446849.3 to 1554283.2)		
Day 1826: Serotype O2 (n=35,17)	3252095.8 (2248988.6 to 4702614.7)	609740.1 (280074.9 to 1327441.3)		
Day 366: Serotype O4 (n=71,39)	1429668.5 (1165397.8 to 1753866.4)	555656.1 (427063.9 to 722968.3)		
Day 731: Serotype O4 (n=62,35)	1363392.1 (1095361.6 to 1697008.7)	475609.0 (338935.6 to 667394.8)		
Day 1096: Serotype O4 (n=57,32)	1468864.1 (1183756.4 to 1822639.9)	548486.3 (379268.3 to 793204.1)		
Day 1461: Serotype O4 (n=36,17)	1636156.0 (1240514.2 to 2157981.2)	698085.2 (433044.7 to 1125341.0)		
Day 1826: Serotype O4 (n=35,17)	1046670.4 (778237.4 to 1407692.4)	474799.1 (277284.3 to 813007.2)		
Day 366: Serotype O6A (n=71,39)	2720316.5 (2256764.3 to 3279084.9)	1140758.7 (870845.9 to 1494329.1)		
Day 731: Serotype O6A (n=62,35)	1938035.7 (1550939.3 to 2421747.0)	656929.5 (476890.5 to 904938.0)		
Day 1096: Serotype O6A (n=57,32)	1908743.4 (1507339.8 to 2417040.6)	763111.9 (558645.1 to 1042414.4)		
Day 1461: Serotype O6A (n=36,17)	1648828.8 (1197245.3 to 2270743.1)	901423.2 (580706.7 to 1399267.1)		
Day 1826: Serotype O6A (n=35,17)	1468233.5 (1065011.1 to 2024119.5)	701895.9 (468747.4 to 1051009.2)		
Day 366: Serotype O8 (n=71,39)	3623746.8 (3024857.5 to 4341209.8)	1430653.9 (1072253.4 to 1908849.6)		

Day 731: Serotype O8 (n=62,35)	4270645.7 (3499266.5 to 5212068.0)	2059650.9 (1475833.6 to 2874417.4)		
Day 1096: Serotype O8 (n=57,32)	4008813.4 (3266716.4 to 4919491.9)	1899779.1 (1312135.7 to 2750600.2)		
Day 1461: Serotype O8 (n=36,17)	3942469.5 (3029442.8 to 5130668.3)	2118665.0 (1293637.1 to 3469861.5)		
Day 1826: Serotype O8 (n=35,17)	3271322.5 (2489462.5 to 4298739.4)	1985249.0 (1280656.7 to 3077494.0)		
Day 366: Serotype O15 (n=71,39)	2758990.7 (2227724.4 to 3416952.9)	1026707.7 (748937.3 to 1407499.4)		
Day 731: Serotype O15 (n=62,35)	2733971.3 (2215513.4 to 3373754.8)	1282357.8 (894038.1 to 1839341.6)		
Day 1096: Serotype O15 (n=57,32)	2605816.2 (2048432.4 to 3314865.4)	1164007.7 (792330.9 to 1710035.4)		
Day 1461: Serotype O15 (n=36,17)	2675476.7 (2035772.1 to 3516196.9)	1318256.0 (878009.0 to 1979249.6)		
Day 1826: Serotype O15 (n=35,17)	2452726.4 (1794091.2 to 3353155.4)	1339915.0 (858920.2 to 2090266.8)		
Day 366: Serotype O16 (n=71,39)	2784393.1 (2248058.4 to 3448684.8)	766620.1 (570562.4 to 1030047.4)		
Day 731: Serotype O16 (n=62,35)	2191014.4 (1676843.6 to 2862845.6)	432088.3 (280872.9 to 664714.5)		
Day 1096: Serotype O16 (n=57,32)	1953749.9 (1467640.7 to 2600867.1)	408528.9 (257897.7 to 647139.9)		
Day 1461: Serotype O16 (n=36,17)	1808141.1 (1314903.6 to 2486398.5)	588532.7 (315738.3 to 1097018.3)		
Day 1826: Serotype O16 (n=35,17)	1418665.2 (1021423.3 to 1970398.5)	441156.2 (228168.2 to 852961.9)		
Day 366: Serotype O18A (n=71,39)	2180993.4 (1813783.2 to 2622547.1)	1011099.1 (803648.4 to 1272100.4)		
Day 731: Serotype O18A (n=62,35)	2120844.7 (1737493.1 to 2588776.9)	1011635.3 (770544.8 to 1328158.9)		
Day 1096: Serotype O18A (n=57,32)	2139682.8 (1721939.0 to 2658771.7)	1069851.1 (812183.5 to 1409264.4)		
Day 1461: Serotype O18A (n=36,17)	1799444.8 (1411938.5 to 2293302.1)	1155976.5 (798832.2 to 1672794.0)		
Day 1826: Serotype O18A (n=35,17)	1634243.4 (1224433.2 to 2181214.6)	938306.2 (615022.6 to 1431522.1)		
Day 366: Serotype O25B (n=71,39)	744315.5 (587104.6 to 943623.5)	278650.7 (211316.5 to 367440.3)		
Day 731: Serotype O25B (n=62,35)	469677.8 (345884.4 to 637777.3)	159425.2 (108167.9 to 234971.5)		

Day 1096: Serotype O25B (n=57,32)	457385.0 (342281.3 to 611196.1)	180091.3 (120576.0 to 268982.7)		
Day 1461: Serotype O25B (n=36,17)	527143.7 (369078.7 to 752903.0)	292822.0 (178948.4 to 479158.8)		
Day 1826: Serotype O25B (n=35,17)	376505.3 (247784.9 to 572093.9)	173640.5 (98267.2 to 306826.7)		
Day 366: Serotype O75 (n=71,39)	1960676.9 (1639629.8 to 2344586.6)	1519723.2 (1099805.5 to 2099970.1)		
Day 731: Serotype O75 (n=62,35)	1991539.0 (1598606.6 to 2481053.0)	1689340.2 (1218863.3 to 2341419.5)		
Day 1096: Serotype O75 (n=57,32)	2152383.1 (1720798.5 to 2692211.4)	1732413.2 (1200043.3 to 2500956.0)		
Day 1461: Serotype O75 (n=36,17)	1811492.3 (1376465.0 to 2384008.6)	1821419.2 (1047856.4 to 3166052.1)		
Day 1826: Serotype O75 (n=35,17)	1912235.2 (1470493.6 to 2486677.5)	1848589.6 (1050960.1 to 3251582.6)		
Day 366: Serotype EPA (n=71,39)	395660.6 (278689.7 to 561726.1)	66438.6 (9.9999 to 93488.9)		
Day 731: Serotype EPA (n=62,35)	255548.1 (174717.6 to 373773.7)	74302.9 (9.9999 to 115058.4)		
Day 1096: Serotype EPA (n=57,32)	284265.5 (191542.8 to 421873.6)	81384.5 (9.9999 to 128120.5)		
Day 1461: Serotype EPA (n=36,17)	285201.1 (175060.8 to 464636.9)	104825.0 (9.9999 to 213630.5)		
Day 1826: Serotype EPA (n=35,17)	236408.3 (142449.3 to 392342.4)	95540.4 (9.9999 to 201601.6)		

Statistical analyses

No statistical analyses for this end point

Secondary: Cohort 1: Percentage of Participants With a >=2-Fold and >=4-Fold Increase From Baseline in Serotype Specific Serum Antibody Titers as Measured by Multiplex ECL Based Immunoassay on Days 366, 731, 1096, 1461 and 1826

End point title	Cohort 1: Percentage of Participants With a >=2-Fold and >=4-Fold Increase From Baseline in Serotype Specific Serum Antibody Titers as Measured by Multiplex ECL Based Immunoassay on Days 366, 731, 1096, 1461 and 1826[50]

End point description:

Percentage of participants with a >=2-fold and >=4-fold increase from baseline in serotype specific serum antibody titers as measured by multiplex ECL based immunoassay on Days 366, 731, 1096, 1461, and 1826 was reported. The fold (>=2-fold and >=4-fold) increase from baseline to Days 366, 731, 1096, 1461, and 1826 for the serotypes O1A, O2, O4, O6A, O8, O15, O16, O18A, O25B, O75 and EPA was calculated as the ratio of titer values of serum antibody on Days 366, 731, 1096, 1461 and 1826 and pre-vaccination (on day 1) that is, Day 366/Day 1, 731/Day 1,1096/Day 1, 1461/Day 1 and 1826 /Day 1. Data was planned to be analyzed for specified arms only. PPI analysis set was analyzed. Here, "N" (number of participants analyzed) signifies participants evaluable for this outcome measure.

End point type	Secondary

End point timeframe:

Baseline (Day 1, pre-vaccination) and Days 366, 731, 1096, 1461, 1826

Notes:

[50] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.

Justification: The data was planned for specified baseline arms only.

End point values	Cohort 1: High Dose ExPEC10V	Cohort 1: Prevnar 13		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	100	51		
Units: Percentage of Participants				
number (confidence interval 95%)				
Day 366: Serotype O1A: >= 2 Fold Increase	70.4 (58.41 to 80.67)	5.3 (0.64 to 17.75)		
Day 731: Serotype O1A: >= 2 Fold Increase	58.1 (44.85 to 70.49)	8.6 (1.80 to 23.06)		
Day 1096: Serotype O1A: >= 2 Fold Increase	56.1 (42.36 to 69.26)	9.4 (1.98 to 25.02)		
Day 1461: Serotype O1A: >= 2 Fold Increase	61.1 (43.46 to 76.86)	17.6 (3.80 to 43.43)		
Day 1826: Serotype O1A: >= 2 Fold Increase	51.4 (33.99 to 68.62)	5.9 (0.15 to 28.69)		
Day 366: Serotype O1A: >=4 Fold Increase	45.1 (33.23 to 57.34)	2.6 (0.07 to 13.81)		
Day 731: Serotype O1A: >=4 Fold Increase	38.7 (26.60 to 51.93)	0.0 (0.00 to 10.00)		
Day 1096: Serotype O1A: >=4 Fold Increase	35.1 (22.91 to 48.87)	0.0 (0.00 to 10.89)		
Day 1461:Serotype O1A: >=4 Fold Increase	36.1 (20.82 to 53.78)	11.8 (1.46 to 36.44)		
Day 1826: Serotype O1A: >=4 Fold Increase	31.4 (16.85 to 49.29)	0.0 (0.00 to 19.51)		
Day 366: Serotype O2: >=2 Fold Increase	91.5 (82.51 to 96.84)	5.3 (0.64 to 17.75)		
Day 731: Serotype O2: >=2 Fold Increase	95.2 (86.50 to 98.99)	20.0 (8.44 to 36.94)		
Day 1096: Serotype O2: >=2 Fold Increase	98.2 (90.61 to 99.96)	15.6 (5.28 to 32.79)		
Day 1461: Serotype O2: >=2 Fold Increase	97.2 (85.47 to 99.93)	11.8 (1.46 to 36.44)		
Day 1826: Serotype O2: >=2 Fold Increase	85.7 (69.74 to 95.19)	17.6 (3.80 to 43.43)		
Day 366: Serotype O2: >=4 Fold Increase	77.5 (66.00 to 86.54)	0.0 (0.00 to 9.25)		
Day 731: Serotype O2: >=4 Fold Increase	75.8 (63.26 to 85.78)	2.9 (0.07 to 14.92)		
Day 1096: Serotype O2: >=4 Fold Increase	73.7 (60.34 to 84.46)	0.0 (0.00 to 10.89)		
Day 1461: Serotype O2: >=4 Fold Increase	72.2 (54.81 to 85.80)	0.0 (0.00 to 19.51)		
Day 1826: Serotype O2: >=4 Fold Increase	68.6 (50.71 to 83.15)	0.0 (0.00 to 19.51)		
Day 366: Serotype O4: >=2 Fold Increase	70.4 (58.41 to 80.67)	2.6 (0.07 to 13.81)		
Day 731: Serotype O4: >=2 Fold Increase	71.0 (58.05 to 81.80)	8.6 (1.80 to 23.06)		

Day 1096: Serotype O4: >=2 Fold Increase	77.2 (64.16 to 87.26)	15.6 (5.28 to 32.79)		
Day 1461: Serotype O4: >=2 Fold Increase	94.4 (81.34 to 99.32)	23.5 (6.81 to 49.90)		
Day 1826: Serotype O4: >=2 Fold Increase	65.7 (47.79 to 80.87)	11.8 (1.46 to 36.44)		
Day 366: Serotype O4: >=4 Fold Increase	35.2 (24.24 to 47.46)	2.6 (0.07 to 13.81)		
Day 731: Serotype O4: >=4 Fold Increase	41.9 (29.51 to 55.15)	2.9 (0.07 to 14.92)		
Day 1096: Serotype O4: >=4 Fold Increase	38.6 (26.00 to 52.43)	3.1 (0.08 to 16.22)		
Day 1461: Serotype O4: >=4 Fold Increase	50.0 (32.92 to 67.08)	0.0 (0.00 to 19.51)		
Day 1826: Serotype O4: >=4 Fold Increase	22.9 (10.42 to 40.14)	0.0 (0.00 to 19.51)		
Day 366: Serotype O6A: >= 2 Fold Increase	56.3 (44.05 to 68.09)	0.0 (0.00 to 9.25)		
Day 731: Serotype O6A: >= 2 Fold Increase	30.6 (19.56 to 43.65)	0.0 (0.00 to 10.00)		
Day 1096: Serotype O6A: >= 2 Fold Increase	28.1 (16.97 to 41.54)	6.3 (0.77 to 20.81)		
Day 1461: Serotype O6A: >= 2 Fold Increase	19.4 (8.19 to 36.02)	5.9 (0.15 to 28.69)		
Day 1826: Serotype O6A: >= 2 Fold Increase	20.0 (8.44 to 36.94)	0.0 (0.00 to 19.51)		
Day 366: Serotype O6A: >=4 Fold Increase	23.9 (14.61 to 35.54)	0.0 (0.00 to 9.25)		
Day 731: Serotype O6A: >=4 Fold Increase	12.9 (5.74 to 23.85)	0.0 (0.00 to 10.00)		
Day 1096: Serotype O6A: >=4 Fold Increase	14.0 (6.26 to 25.79)	0.0 (0.00 to 10.89)		
Day 1461: Serotype O6A: >=4 Fold Increase	11.1 (3.11 to 26.06)	0.0 (0.00 to 19.51)		
Day 1826: Serotype O6A: >=4 Fold Increase	8.6 (1.80 to 23.06)	0.0 (0.00 to 19.51)		
Day 366: Serotype O8: >=2 Fold Increase	59.2 (46.84 to 70.68)	2.6 (0.07 to 13.81)		
Day 731: Serotype O8: >=2 Fold Increase	66.1 (52.99 to 77.67)	28.6 (14.64 to 46.30)		
Day 1096: Serotype O8: >=2 Fold Increase	59.6 (45.82 to 72.44)	28.1 (13.75 to 46.75)		
Day 1461: Serotype O8: >=2 Fold Increase	69.4 (51.89 to 83.65)	29.4 (10.31 to 55.96)		
Day 1826: Serotype O8: >=2 Fold Increase	51.4 (33.99 to 68.62)	17.6 (3.80 to 43.43)		
Day 366: Serotype O8: >=4 Fold Increase	22.5 (13.46 to 34.00)	0.0 (0.00 to 9.25)		
Day 731: Serotype O8: >=4 Fold Increase	38.7 (26.60 to 51.93)	8.6 (1.80 to 23.06)		
Day 1096: Serotype O8: >=4 Fold Increase	24.6 (14.13 to 37.76)	3.1 (0.08 to 16.22)		
Day 1461: Serotype O8: >=4 Fold Increase	30.6 (16.35 to 48.11)	17.6 (3.80 to 43.43)		
Day 1826: Serotype O8: >=4 Fold Increase	25.7 (12.49 to 43.26)	5.9 (0.15 to 28.69)		
Day 366: Serotype O15: >=2 Fold Increase	67.6 (55.45 to 78.24)	5.3 (0.64 to 17.75)		
Day 731: Serotype O15: >=2 Fold Increase	71.0 (58.05 to 81.80)	28.6 (14.64 to 46.30)		
Day 1096: Serotype O15: >=2 Fold Increase	63.2 (49.34 to 75.55)	21.9 (9.28 to 39.97)		

Day 1461: Serotype O15: >=2 Fold Increase	58.3 (40.76 to 74.49)	23.5 (6.81 to 49.90)		
Day 1826: Serotype O15: >=2 Fold Increase	54.3 (36.65 to 71.17)	29.4 (10.31 to 55.96)		
Day 366: Serotype O15: >=4 Fold Increase	32.4 (21.76 to 44.55)	2.6 (0.07 to 13.81)		
Day 731: Serotype O15: >=4 Fold Increase	32.3 (20.94 to 45.34)	8.6 (1.80 to 23.06)		
Day 1096: Serotype O15: >=4 Fold Increase	28.1 (16.97 to 41.54)	6.3 (0.77 to 20.81)		
Day 1461: Serotype O15: >=4 Fold Increase	27.8 (14.20 to 45.19)	5.9 (0.15 to 28.69)		
Day 1826: Serotype O15: >=4 Fold Increase	25.7 (12.49 to 43.26)	11.8 (1.46 to 36.44)		
Day 366: Serotype O16: >=2 Fold Increase	76.1 (64.46 to 85.39)	2.6 (0.07 to 13.81)		
Day 731: Serotype O16: >=2 Fold Increase	66.1 (52.99 to 77.67)	2.9 (0.07 to 14.92)		
Day 1096: Serotype O16: >=2 Fold Increase	54.4 (40.66 to 67.64)	3.1 (0.08 to 16.22)		
Day 1461: Serotype O16: >=2 Fold Increase	61.1 (43.46 to 76.86)	11.8 (1.46 to 36.44)		
Day 1826: Serotype O16: >=2 Fold Increase	54.3 (36.65 to 71.17)	5.9 (0.15 to 28.69)		
Day 366: Serotype O16: >=4 Fold Increase	40.8 (29.32 to 53.16)	2.6 (0.07 to 13.81)		
Day 731: Serotype O16: >=4 Fold Increase	32.3 (20.94 to 45.34)	2.9 (0.07 to 14.92)		
Day 1096: Serotype O16: >=4 Fold Increase	28.1 (16.97 to 41.54)	0.0 (0.00 to 10.89)		
Day 1461: Serotype O16: >=4 Fold Increase	25.0 (12.12 to 42.20)	0.0 (0.00 to 19.51)		
Day 1826: Serotype O16: >=4 Fold Increase	17.1 (6.56 to 33.65)	0.0 (0.00 to 19.51)		
Day 366: Serotype O18A: >=2 Fold Increase	60.6 (48.25 to 71.97)	2.6 (0.07 to 13.81)		
Day 731: Serotype O18A: >=2 Fold Increase	54.8 (41.68 to 67.52)	25.7 (12.49 to 43.26)		
Day 1096: Serotype O18A: >=2 Fold Increase	50.9 (37.2 to 64.37)	18.8 (7.21 to 36.44)		
Day 1461: Serotype O18A: >=2 Fold Increase	36.1 (20.82 to 53.78)	17.6 (3.80 to 43.43)		
Day 1826: Serotype O18A: >=2 Fold Increase	28.6 (14.64 to 46.30)	11.8 (1.46 to 36.44)		
Day 366: Serotype O18A: >=4 Fold Increase	12.7 (5.96 to 22.70)	0.0 (0.00 to 9.25)		
Day 731: Serotype O18A: >=4 Fold Increase	21.0 (11.66 to 33.18)	0.0 (0.00 to 10.00)		
Day 1096: Serotype O18A: >=4 Fold Increase	17.5 (8.75 to 29.91)	0.0 (0.00 to 10.89)		
Day 1461: Serotype O18A: >=4 Fold Increase	8.3 (1.75 to 22.47)	0.0 (0.00 to 19.51)		
Day 1826: Serotype O18A: >=4 Fold Increase	8.6 (1.80 to 23.06)	0.0 (0.00 to 19.51)		
Day 366: Serotype 025B: >=2 Fold Increase	64.8 (52.54 to 75.76)	5.3 (0.64 to 17.75)		
Day 731: Serotype 025B: >=2 Fold Increase	50.0 (37.02 to 62.98)	0.0 (0.00 to 10.00)		
Day 1096: Serotype 025B: >=2 Fold Increase	52.6 (38.97 to 66.02)	0.0 (0.00 to 10.89)		
Day 1461: Serotype 025B: >=2 Fold Increase	52.8 (35.49 to 69.59)	0.0 (0.00 to 19.51)		

Day 1826: Serotype 025B: >=2 Fold Increase	28.6 (14.64 to 46.30)	0.0 (0.00 to 19.51)		
Day 366: Serotype 025B: >=4 Fold Increase	33.8 (23.00 to 46.01)	0.0 (0.00 to 9.25)		
Day 731: Serotype 025B: >=4 Fold Increase	25.8 (15.53 to 38.50)	0.0 (0.00 to 10.00)		
Day 1096: Serotype 025B: >=4 Fold Increase	21.1 (11.38 to 33.89)	0.0 (0.00 to 10.89)		
Day 1461: Serotype 025B: >=4 Fold Increase	16.7 (6.37 to 32.81)	0.0 (0.00 to 19.51)		
Day 1826: Serotype 025B: >=4 Fold Increase	8.6 (1.80 to 23.06)	0.0 (0.00 to 19.51)		
Day 366: Serotype O75: >=2 Fold Increase	33.8 (23.00 to 46.01)	2.6 (0.07 to 13.81)		
Day 731: Serotype O75: >=2 Fold Increase	32.3 (20.94 to 45.34)	8.6 (1.80 to 23.06)		
Day 1096: Serotype O75: >=2 Fold Increase	40.4 (27.56 to 54.18)	15.6 (5.28 to 32.79)		
Day 1461: Serotype O75: >=2 Fold Increase	33.3 (18.56 to 50.97)	5.9 (0.15 to 28.69)		
Day 1826: Serotype O75: >=2 Fold Increase	31.4 (16.85 to 49.29)	17.6 (3.80 to 43.43)		
Day 366: Serotype O75: >=4 Fold Increase	8.5 (3.16 to 17.49)	2.6 (0.07 to 13.81)		
Day 731: Serotype O75: >=4 Fold Increase	11.3 (4.66 to 21.89)	2.9 (0.07 to 14.92)		
Day 1096: Serotype O75: >=4 Fold Increase	12.3 (5.08 to 23.68)	3.1 (0.08 to 16.22)		
Day 1461: Serotype O75: >=4 Fold Increase	16.7 (6.37 to 32.81)	5.9 (0.15 to 28.69)		
Day 1826: Serotype O75: >=4 Fold Increase	14.3 (4.81 to 30.26)	11.8 (1.46 to 36.44)		
Day 366: Serotype EPA: >=2 Fold Increase	60.6 (48.25 to 71.97)	0.0 (0.00 to 9.25)		
Day 731: Serotype EPA: >=2 Fold Increase	45.2 (32.48 to 58.32)	5.7 (0.70 to 19.16)		
Day 1096: Serotype EPA: >=2 Fold Increase	42.1 (29.14 to 55.92)	9.4 (1.98 to 25.02)		
Day 1461: Serotype EPA: >=2 Fold Increase	47.2 (30.41 to 64.51)	11.8 (1.46 to 36.44)		
Day 1826: Serotype EPA: >=2 Fold Increase	40.0 (23.87 to 57.89)	17.6 (3.80 to 43.43)		
Day 366: Serotype EPA: >=4 Fold Increase	38.0 (26.76 to 50.33)	0.0 (0.00 to 9.25)		
Day 731: Serotype EPA: >=4 Fold Increase	29.0 (18.20 to 41.95)	5.7 (0.70 to 19.16)		
Day 1096: Serotype EPA: >=4 Fold Increase	28.1 (16.97 to 41.54)	6.3 (0.77 to 20.81)		
Day 1461: Serotype EPA: >=4 Fold Increase	27.8 (14.20 to 45.19)	5.9 (0.15 to 28.69)		
Day 1826: Serotype EPA: >=4 Fold Increase	22.9 (10.42 to 40.14)	11.8 (1.46 to 36.44)		

Statistical analyses

No statistical analyses for this end point

Secondary: Cohort 1: Geometric Mean Ratio (GMR) of Fold Changes from Baseline

for Serotype-specific Antibodies Measured by Multiplex ECL Based Immunoassay on Days 366, 731, 1096, 1461 and 1826

End point title	Cohort 1: Geometric Mean Ratio (GMR) of Fold Changes from Baseline for Serotype-specific Antibodies Measured by Multiplex ECL Based Immunoassay on Days 366, 731, 1096, 1461 and 1826[51]

End point description:

GMR of fold changes from baseline for serotype specific antibodies as measured by multiplex ECL based immunoassay on Days 366, 731, 1096, 1461 and 1826 were reported. GMR for each antigen serotypes O1A, O2, O4, O6A, O8, O15, O16, O18A, O25B, O75 and EPA were determined in serum from collected blood samples by ECL based immunoassay. GMR of fold change from baseline was calculated as the ratio of GMTs on Days 366, 731, 1096, 1461 and 1826 and pre-vaccination (on Day 1). Data was planned to be analyzed for specified arms only. PPI analysis set included all randomized and vaccinated participants, for whom immunogenicity data were available excluding participants with major protocol deviations expected to impact the immunogenicity outcomes. Here, "N" (number of participants analyzed) signifies participants evaluable for this endpoint.

End point type	Secondary

End point timeframe:

Baseline (Day 1, pre-vaccination) and Days 366, 731, 1096, 1461, 1826

Notes:

[51] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: The data was planned for specified baseline arms only.

End point values	Cohort 1: High Dose ExPEC10V	Cohort 1: Prevnar 13		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	71	39		
Units: Ratio				
geometric mean (confidence interval 95%)				
Day 366: Serotype O1A	3.57 (2.893 to 4.402)	1.10 (0.969 to 1.248)		
Day 731: Serotype O1A	2.74 (2.159 to 3.466)	0.82 (0.674 to 1.009)		
Day 1096: Serotype O1A	2.52 (1.932 to 3.293)	0.82 (0.640 to 1.047)		
Day 1461: Serotype O1A	2.75 (2.076 to 3.635)	1.01 (0.678 to 1.498)		
Day 1826: Serotype O1A	2.23 (1.701 to 2.928)	0.72 (0.518 to 1.009)		
Day 366: Serotype O2	7.71 (6.279 to 9.457)	1.22 (1.098 to 1.348)		
Day 731: Serotype O2	7.62 (5.994 to 9.694)	1.34 (1.103 to 1.637)		
Day 1096: Serotype O2	7.78 (6.202 to 9.761)	1.31 (1.101 to 1.558)		
Day 1461: Serotype O2	7.13 (5.471 to 9.294)	1.32 (1.062 to 1.651)		
Day 1826: Serotype O2	6.29 (4.594 to 8.616)	1.05 (0.800 to 1.385)		
Day 366: Serotype O4	3.29 (2.762 to 3.907)	1.20 (1.053 to 1.356)		
Day 731: Serotype O4	3.16 (2.630 to 3.808)	1.06 (0.881 to 1.280)		
Day 1096: Serotype O4	3.35 (2.792 to 4.029)	1.16 (0.942 to 1.439)		
Day 1461: Serotype O4	4.02 (3.302 to 4.890)	1.43 (1.097 to 1.865)		

Day 1826: Serotype O4	2.58 (2.057 to 2.657)	1.06 (0.767 to 1.461)		
Day 366: Serotype O6A	2.54 (2.178 to 2.958)	1.09 (0.988 to 1.205)		
Day 731: Serotype O6A	1.63 (1.323 to 1.999)	0.67 (0.547 to 0.811)		
Day 1096: Serotype O6A	1.64 (1.345 to 1.993)	0.71 (0.559 to 0.896)		
Day 1461: Serotype O6A	1.37 (1.089 to 1.726)	0.69 (0.548 to 0.867)		
Day 1826: Serotype O6A	1.27 (0.999 to 1.615)	0.51 (0.395 to 0.655)		
Day 366: Serotype O8	2.46 (2.110 to 2.868)	1.01 (0.892 to 1.143)		
Day 731: Serotype O8	2.93 (2.396 to 3.595)	1.52 (1.221 to 1.886)		
Day 1096: Serotype O8	2.61 (2.120 to 3.207)	1.29 (1.028 to 1.625)		
Day 1461: Serotype O8	2.99 (2.275 to 3.923)	1.44 (0.981 to 2.106)		
Day 1826: Serotype O8	2.54 (1.930 to 3.330)	1.42 (1.070 to 1.897)		
Day 366: Serotype O15	3.16 (2.615 to 3.810)	1.24 (1.082 to 1.423)		
Day 731: Serotype O15	2.99 (2.477 to 3.609)	1.52 (1.201 to 1.912)		
Day 1096: Serotype O15	2.90 (2.352 to 3.569)	1.29 (0.984 to 1.681)		
Day 1461: Serotype O15	2.76 (2.120 to 3.586)	1.30 (0.878 to 1.937)		
Day 1826: Serotype O15	2.54 (1.908 to 3.374)	1.37 (0.903 to 2.083)		
Day 366: Serotype O16	3.62 (3.025 to 4.342)	1.08 (0.949 to 1.225)		
Day 731: Serotype O16	2.79 (2.180 to 3.575)	0.68 (0.557 to 0.836)		
Day 1096: Serotype O16	2.44 (1.911 to 3.125)	0.63 (0.511 to 0.788)		
Day 1461: Serotype O16	2.46 (1.832 to 3.315)	0.90 (0.656 to 1.235)		
Day 1826: Serotype O16	1.98 (1.454 to 2.694)	0.73 (0.529 to 0.997)		
Day 366: Serotype O18A	2.37 (2.021 to 2.778)	1.11 (1.009 to 1.232)		
Day 731: Serotype O18A	2.36 (1.939 to 2.876)	1.16 (0.966 to 1.385)		
Day 1096: Serotype O18A	2.35 (1.916 to 2.872)	1.19 (1.010 to 1.406)		
Day 1461: Serotype O18A	1.83 (1.495 to 2.249)	1.03 (0.767 to 1.371)		
Day 1826: Serotype O18A	1.67 (1.328 to 2.099)	0.88 (0.632 to 1.227)		
Day 366: Serotype O25B	3.10 (2.573 to 3.737)	1.16 (1.033 to 1.293)		
Day 731: Serotype O25B	2.14 (1.673 to 2.733)	0.71 (0.598 to 0.831)		
Day 1096: Serotype O25B	2.06 (1.638 to 2.592)	0.74 (0.624 to 0.867)		
Day 1461: Serotype O25B	1.99 (1.507 to 2.640)	0.99 (0.77 to 1.268)		
Day 1826: Serotype O25B	1.41 (1.094 to 1.823)	0.65 (0.507 to 0.827)		

Day 366: Serotype O75	1.71 (1.516 to 1.75)	1.05 (0.931 to 1.182)		
Day 731: Serotype O75	1.69 (1.419 to 2.010)	1.14 (0.949 to 1.368)		
Day 1096: Serotype O75	1.84 (1.519 to 2.226)	1.08 (0.845 to 1.392)		
Day 1461: Serotype O75	1.61 (1.253 to 2.075)	1.04 (0.681 to 1.577)		
Day 1826: Serotype O75	1.67 (1.318 to 2.121)	1.19 (0.818 to 1.731)		
Day 366: Serotype EPA	3.31 (2.587 to 4.232)	0.98 (0.946 to 1.019)		
Day 731: Serotype EPA	2.25 (1.793 to 2.819)	1.14 (0.838 to 1.546)		
Day 1096: Serotype EPA	2.33 (1.864 to 2.907)	1.14 (0.844 to 1.553)		
Day 1461: Serotype EPA	2.11 (1.568 to 2.844)	1.17 (0.712 to 1.939)		
Day 1826: Serotype EPA	1.86 (1.376 to 2.513)	1.29 (0.848 to 1.957)		

Statistical analyses

No statistical analyses for this end point

Secondary: Cohort 1: Geometric Mean Titer (GMT) of Serotype-specific Total Immunoglobulin G (IgG) Serum Antibodies as Measured by MOPA on Days 366, 731, 1096, and 1461

End point title	Cohort 1: Geometric Mean Titer (GMT) of Serotype-specific Total Immunoglobulin G (IgG) Serum Antibodies as Measured by MOPA on Days 366, 731, 1096, and 1461[52]

End point description:

GMTs of serotype-specific total IgG serum antibodies as measured by MOPA were reported. GMTs for each antigen serotypes O1A, O2, O4, O6A, O15, O16, O18A, O25B and O75 were determined in serum from collected blood samples. Data was planned to be analyzed for specified arms only. PPI analysis set included all randomized and vaccinated participants, for whom immunogenicity data were available excluding participants with major protocol deviations expected to impact the immunogenicity outcomes. For serotype O8 functional IgG serum antibodies were not evaluated as the assay was not able to detect vaccine-induced functional antibodies against the O8 serotype. Here, "N" (number of participants analyzed) signifies participants evaluable for this endpoint. 9.9999 signifies lower limit of 95% CI could not be calculated as values were below lower limit of quantification (LLOQ), that is, O1A: 33, O2: 42, O4: 12, O6A: 62, O15: 75, O16: 17, O18A: 44, O25B: 58, O75: 14.

End point type	Secondary

End point timeframe:

Days 366, 731, 1096, 1461

Notes:

[52] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: The data was planned for specified baseline arms only.

End point values	Cohort 1: High Dose ExPEC10V	Cohort 1: Prevnar 13		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	100	51		
Units: titers				
geometric mean (confidence interval 95%)				
Day 366: Serotype O1A	266.6 (194.4 to 365.5)	187.9 (76.6 to 460.5)		
Day 731: Serotype O1A	198.0 (146.6 to 267.5)	379.5 (125.6 to 1146.1)		
Day 1096: Serotype O1A	229.2 (162.9 to 322.4)	278.9 (116.4 to 667.8)		
Day 1461: Serotype O1A	241.0 (160.6 to 361.6)	362.3 (53.0 to 2478.0)		
Day 366: Serotype O2	1700.5 (1171.9 to 2467.7)	186.1 (74.2 to 466.5)		
Day 731: Serotype O2	468.2 (325.6 to 673.4)	261.3 (132.0 to 517.2)		
Day 1096: Serotype O2	866.7 (600.6 to 1250.8)	236.5 (104.7 to 534.3)		
Day 1461: Serotype O2	622.5 (374.9 to 1033.5)	288.4 (9.9999 to 2239.4)		
Day 366: Serotype O4	269.8 (211.3 to 344.3)	155.8 (98.4 to 246.6)		
Day 731: Serotype O4	279.7 (225.2 to 347.3)	229.2 (92.0 to 571.1)		
Day 1096: Serotype O4	284.4 (233.9 to 345.7)	292.0 (204.4 to 417.2)		
Day 1461: Serotype O4	242.0 (180.6 to 324.2)	216.3 (101.2 to 462.3)		
Day 366: Serotype O6A	620.2 (471.0 to 816.6)	287.6 (91.7 to 902.0)		
Day 731: Serotype O6A	483.7 (357.0 to 655.4)	368.0 (104.3 to 1298.3)		
Day 1096: Serotype O6A	548.5 (397.1 to 757.6)	635.9 (156.7 to 2581.5)		
Day 1461: Serotype O6A	538.7 (374.0 to 775.8)	921.4 (200.1 to 4243.2)		
Day 366: Serotype O15	1062.4 (770.4 to 1465.1)	434.2 (160.1 to 1177.6)		
Day 731: Serotype O15	846.5 (606.0 to 1182.4)	815.5 (170.5 to 3900.1)		
Day 1096: Serotype O15	484.3 (355.7 to 659.5)	527.2 (135.9 to 2045.2)		
Day 1461: Serotype O15	600.8 (376.3 to 959.3)	736.1 (106.0 to 5110.6)		
Day 366: Serotype O16	440.9 (304.1 to 639.4)	113.1 (58.3 to 219.6)		
Day 731: Serotype O16	375.6 (263.5 to 535.6)	140.7 (47.6 to 416.0)		
Day 1096: Serotype O16	265.9 (181.4 to 389.7)	300.1 (83.5 to 1078.5)		
Day 1461: Serotype O16	249.6 (153.5 to 405.7)	186.2 (37.6 to 921.8)		
Day 366: Serotype O18A	301.7 (233.4 to 390.1)	182.8 (71.2 to 469.7)		
Day 731: Serotype O18A	213.0 (167.6 to 270.7)	131.8 (9.9999 to 412.7)		

Day 1096: Serotype O18A	192.9 (143.1 to 260.2)	90.2 (9.9999 to 373.6)		
Day 1461: Serotype O18A	324.9 (222.0 to 475.4)	327.2 (9.9999 to 2698.0)		
Day 366: Serotype O25B	69.2 (9.9999 to 90.2)	9.9999 (9.9999 to 9.9999)		
Day 731: Serotype O25B	9.9999 (9.9999 to 70.4)	9.9999 (9.9999 to 9.9999)		
Day 1096: Serotype O25B	9.9999 (9.9999 to 9.9999)	9.9999 (9.9999 to 9.9999)		
Day 1461: Serotype O25B	9.9999 (9.9999 to 59.9)	9.9999 (9.9999 to 74.0)		
Day 366: Serotype O75	80.9 (62.2 to 105.2)	101.5 (40.9 to 251.5)		
Day 731: Serotype O75	57.7 (42.3 to 78.7)	101.5 (39.5 to 260.6)		
Day 1096: Serotype O75	83.0 (58.7 to 117.2)	100.9 (33.3 to 305.4)		
Day 1461: Serotype O75	46.6 (32.0 to 67.9)	117.3 (19.7 to 698.4)		

Statistical analyses

No statistical analyses for this end point

Secondary: Cohort 1: Geometric Mean Ratio (GMR) of Fold Changes From Baseline for Serotype Specific Antibodies as Measured by MOPA on Days 366, 731, 1096, and 1461

End point title	Cohort 1: Geometric Mean Ratio (GMR) of Fold Changes From Baseline for Serotype Specific Antibodies as Measured by MOPA on Days 366, 731, 1096, and 1461[53]

End point description:

GMR of fold changes from baseline for serotype specific antibodies as measured by MOPA on Days 366, 731, 1096, 1461 were reported. GMR for each antigen serotypes O1A, O2, O4, O6A, O15, O16, O18A, O25B and O75 were determined in serum from collected blood samples by MOPA. GMR of fold change from baseline was calculated as the ratio of GMTs on Days 366, 731, 1096, 1461 and pre-vaccination (on Day 1). Data was planned to be analyzed for specified arms only. PPI analysis set included all randomized and vaccinated participants, for whom immunogenicity data were available excluding participants with major protocol deviations expected to impact the immunogenicity outcomes. For serotype O8 functional IgG serum antibodies were not evaluated as the assay was not able to detect vaccine-induced functional antibodies against the O8 serotype. Here, "N" (number of participants analyzed) signifies participants evaluable for this endpoint.

End point type	Secondary

End point timeframe:

Baseline (Day 1, pre-vaccination) and Days 366, 731, 1096, 1461

Notes:

[53] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: The data was planned for specified baseline arms only.

End point values	Cohort 1: High Dose ExPEC10V	Cohort 1: Prevnar 13		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	100	51		
Units: ratio				
geometric mean (confidence interval 95%)				
Day 366: Serotype O1A	0.90 (0.738 to 1.110)	0.62 (0.401 to 0.963)		
Day 731: Serotype O1A	0.71 (0.591 to 0.865)	0.91 (0.401 to 2.088)		
Day 1096: Serotype O1A	0.80 (0.665 to 0.953)	0.69 (0.325 to 1.459)		
Day 1461: Serotype O1A	0.98 (0.781 to 1.225)	0.64 (0.146 to 2.786)		
Day 366: Serotype O2	5.05 (3.601 to 7.072)	0.84 (0.437 to 1.604)		
Day 731: Serotype O2	1.53 (1.131 to 2.057)	0.93 (0.410 to 2.095)		
Day 1096: Serotype O2	2.63 (1.932 to 3.574)	0.76 (0.513 to 1.140)		
Day 1461: Serotype O2	2.13 (1.386 to 3.274)	0.96 (0.398 to 2.313)		
Day 366: Serotype O4	1.67 (1.343 to 2.080)	1.23 (0.367 to 4.130)		
Day 731: Serotype O4	1.62 (1.313 to 1.997)	2.04 (0.672 to 6.185)		
Day 1096: Serotype O4	1.62 (1.345 to 1.947)	2.12 (0.330 to 13.573)		
Day 1461: Serotype O4	1.43 (1.087 to 1.880)	1.42 (0.041 to 49.404)		
Day 366: Serotype O6A	1.19 (0.954 to 1.475)	0.59 (0.317 to 1.083)		
Day 731: Serotype O6A	0.84 (0.689 to 1.018)	0.91 (0.458 to 1.808)		
Day 1096: Serotype O6A	0.91 (0.711 to 1.160)	1.47 (0.337 to 6.398)		
Day 1461: Serotype O6A	1.00 (0.761 to 1.319)	2.59 (0.139 to 48.195)		
Day 366: Serotype O15	2.86 (2.140 to 3.825)	0.95 (0.594 to 1.522)		
Day 731: Serotype O15	2.06 (1.549 to 2.737)	1.81 (0.904 to 3.610)		
Day 1096: Serotype O15	1.23 (0.887 to 1.707)	0.97 (0.331 to 2.850)		
Day 1461: Serotype O15	1.79 (1.164 to 2.753)	0.87 (0.320 to 2.343)		
Day 366: Serotype O16	3.84 (2.861 to 5.155)	0.99 (0.495 to 1.962)		
Day 731: Serotype O16	3.45 (2.618 to 4.534)	1.13 (0.631 to 2.031)		
Day 1096: Serotype O16	2.39 (1.796 to 3.171)	1.80 (0.891 to 3.618)		
Day 1461: Serotype O16	2.53 (1.726 to 3.719)	1.31 (0.419 to 4.085)		
Day 366: Serotype O18A	1.27 (1.008 to 1.601)	0.93 (0.464 to 1.861)		
Day 731: Serotype O18A	0.86 (0.695 to 1.064)	0.78 (0.516 to 1.181)		
Day 1096: Serotype O18A	0.78 (0.647 to 0.949)	0.57 (0.365 to 0.901)		

Day 1461: Serotype O18A	1.21 (0.979 to 1.491)	1.03 (0.422 to 2.519)		
Day 366: Serotype O25B	1.39 (1.188 to 1.630)	1.08 (0.906 to 1.276)		
Day 731: Serotype O25B	1.19 (0.999 to 1.428)	1.08 (0.894 to 1.308)		
Day 1096: Serotype O25B	0.99 (0.918 to 1.070)	1.00 (0.996 to 1.010)		
Day 1461: Serotype O25B	1.05 (0.921 to 1.185)	1.05 (0.896 to 1.235)		
Day 366: Serotype O75	1.43 (1.160 to 1.772)	1.20 (0.496 to 2.878)		
Day 731: Serotype O75	1.12 (0.886 to 1.408)	1.17 (0.457 to 2.982)		
Day 1096: Serotype O75	1.57 (1.159 to 2.117)	0.92 (0.338 to 2.479)		
Day 1461: Serotype O75	1.13 (0.875 to 1.462)	1.11 (0.189 to 6.553)		

Statistical analyses

No statistical analyses for this end point

Secondary: Cohort 1: Percentage of Participants With a >= 2-Fold and >=4-Fold Increase in Serotype-specific Serum Antibody Titers Measured by MOPA on Days 366, 731, 1096, and 1461

End point title	Cohort 1: Percentage of Participants With a >= 2-Fold and >=4-Fold Increase in Serotype-specific Serum Antibody Titers Measured by MOPA on Days 366, 731, 1096, and 1461 [54]

End point description:

Percentage of participants with a >=2-fold and >=4-fold increase from baseline in serotype specific serum antibody titers as measured by MOPA on Days 366, 731, 1096, 1461 was reported. The fold (>=2-fold and >=4-fold) increase from baseline to Days 366, 731, 1096, and 1461 for the serotypes O1A, O2, O4, O6A, O15, O16, O18A, O25B, and O75 was calculated as the ratio of titer values of serum antibody on Days 366, 731, 1096, 1461 and pre-vaccination (on day 1) that is, Day 366/Day 1, 731/Day 1, 1096/Day 1, 1461/Day 1. Data was planned to be analyzed for specified arms only. PPI analysis set was analyzed. For serotype O8 functional IgG serum antibodies were not evaluated as the assay was not able to detect vaccine-induced functional antibodies against the O8 serotype. Here, "N" (number of participants analyzed) signifies participants evaluable for this endpoint and "n" (number analyzed) signifies those participants who were evaluable at specified categories.

End point type	Secondary

End point timeframe:

Baseline (Day 1, pre-vaccination) and Days 366, 731, 1096, and 1461

Notes:

[54] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: The data was planned for specified baseline arms only.

End point values	Cohort 1: High Dose ExPEC10V	Cohort 1: Prevnar 13		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	71	39		
Units: Percentage of participants				
number (confidence interval 95%)				

Day 366: O1A:>=2fold increase (n=71, 39)	8.7 (3.26 to 17.97)	0.0 (0.00 to 36.94)		
Day 731: O1A:>=2 Fold Increase (n=62, 35)	6.8 (1.88 to 16.46)	14.3 (0.36 to 57.87)		
Day 1096: O1A:>=2Fold Increase(n=57, 32)	10.9 (4.11 to 22.25)	0.0 (0.00 to 45.93)		
Day 1461: O1A:>=2 Fold Increase(n=36, 17)	17.1 (6.56 to 33.65)	0.0 (0.00 to 60.24)		
Day 366: O1A: >=4 Fold Increase(n=71, 39)	7.2 (2.39 to 16.11)	0.0 (0.00 to 36.94)		
Day 731: O1A:>=4 Fold Increase (n= 71, 39)	1.7 (0.04 to 9.09)	0.0 (0.00 to 40.96)		
Day 1096: O1A:>=4 Fold Increase (n=71,39)	0.0 (0.00 to 6.49)	0.0 (0.00 to 45.93)		
Day 1461: O1A:>=4 Fold Increase(n=71,39)	0.0 (0.00 to 10.00)	0.0 (0.00 to 60.24)		
Day 366: O2:>=2 Fold Increase(n=71,39)	69.6 (57.31 to 80.08)	12.5 (0.32 to 52.65)		
Day 731: O2:>=2Fold Increase (n=71,39)	31.0 (19.54 to 44.54)	28.6 (3.67 to 70.96)		
Day 1096:O2:>=2 Fold Increase(n=71,39)	52.7 (38.80 to 66.35)	0.0 (0.00 to 45.93)		
Day 1461: O2: >= 2 Fold Increase (n=71,39)	51.4 (33.99 to 68.62)	0.0 (0.00 to 60.24)		
Day 366: O2: >= 4 Fold Increase (n=71,39)	52.2 (39.80 to 64.35)	0.0 (0.00 to 36.94)		
Day 731: O2: >= 4 Fold Increase (n=71,39)	15.5 (7.35 to 27.42)	0.0 (0.00 to 40.96)		
Day 1096: O2: >= 4 Fold Increase (n=71,39)	32.7 (20.68 to 46.71)	0.0 (0.00 to 45.93)		
Day 1461: O2: >= 4 Fold Increase (n=71,39)	31.4 (16.85 to 49.29)	0.0 (0.00 to 60.24)		
Day 366: O4: >= 2 Fold Increase (n=71,39)	40.6 (28.91 to 53.08)	37.5 (8.52 to 75.51)		
Day 731: O4: >= 2 Fold Increase (n=71,39)	35.6 (23.55 to 49.13)	71.4 (29.04 to 96.33)		
Day 1096: O4: >= 2 Fold Increase (n=71,39)	38.2 (25.41 to 52.27)	66.7 (22.28 to 95.67)		
Day 1461: O4: >= 2 Fold Increase (n=71,39)	28.6 (14.64 to 46.30)	50.0 (6.76 to 93.24)		
Day 366: O4: >= 4 Fold Increase (n=71,39)	21.7 (12.71 to 33.31)	12.5 (0.32 to 52.65)		
Day 731: O4: >= 4 Fold Increase (n=71,39)	15.3 (7.22 to 26.99)	28.6 (3.67 to 70.96)		
Day 1096: O4: = 4 Fold Increase (n=71,39)	10.9 (4.11 to 22.25)	33.3 (4.33 to 77.72)		
Day 1461: O4: >= 4 Fold Increase (n=71,39)	8.6 (1.80 to 23.06)	50.0 (6.76 to 93.24)		
Day 366: O6A: >= 2 Fold Increase (n=71,39)	24.6 (15.05 to 36.49)	0.0 (0.00 to 36.94)		
Day 731: O6A: >= 2 Fold Increase (n=71,39)	8.5 (2.81 to 18.68)	14.3 (0.36 to 57.87)		
Day 1096: O6A: >= 2 Fold Increase (n=71,39)	14.5 (6.50 to 26.66)	16.7 (0.42 to 64.12)		
Day 1461: O6A: >= 2 Fold Increase (n=71,39)	14.3 (4.81 to 30.26)	25.0 (0.63 to 80.59)		
Day 366: O6A: >= 4 Fold Increase (n=71,39)	11.6 (5.14 to 21.57)	0.0 (0.00 to 36.94)		
Day 731: O6A: >= 4 Fold Increase (n=71,39)	5.1 (1.06 to 14.15)	0.0 (0.00 to 40.96)		
Day 1096: O6A: >= 4 Fold Increase (n=71,39)	7.3 (2.02 to 17.59)	16.7 (0.42 to 64.12)		

Day 1461: O6A: >= 4 Fold Increase (n=71,39)	8.6 (1.80 to 23.06)	25.0 (0.63 to 80.59)		
Day 366: O15: >= 2 Fold Increase (n=71,39)	55.1 (42.62 to 67.08)	0.0 (0.00 to 36.94)		
Day 731: O15: >= 4 Fold Increase (n=71,39)	23.7 (13.62 to 36.59)	28.6 (3.67 to 70.96)		
Day 1096: O15: >= 4 Fold Increase (n=71,39)	20.0 (10.43 to 32.97)	0.0 (0.00 to 45.93)		
Day 1461: O15: >= 4 Fold Increase (n=71,39)	25.7 (12.49 to 43.26)	0.0 (0.00 to 99999)		
Day 366: O16: >= 2 Fold Increase (n=71,39)	64.7 (52.17 to 75.92)	37.5 (8.52 to 75.51)		
Day 731: O16: >= 2 Fold Increase (n=71,39)	69.0 (55.46 to 80.46)	14.3 (0.36 to 57.87)		
Day 1096: O16: >= 2 Fold Increase (n=71,39)	55.6 (41.40 to 69.08)	50.0 (11.81 to 88.19)		
Day 1461: O16: >= 2 Fold Increase (n=71,39)	54.3 (36.65 to 71.17)	25.0 (0.63 to 80.59)		
Day 366: O16: >= 4 Fold Increase (n=71,39)	47.1 (34.83 to 59.55)	0.0 (0.00 to 36.94)		
Day 731: O16: >= 4 Fold Increase (n=71,39)	44.8 (31.74 to 58.46)	0.0 (0.00 to 40.96)		
Day 1096: O16: >= 4 Fold Increase (n=71,39)	31.5 (19.52 to 45.55)	0.0 (0.00 to 45.93)		
Day 1461: O16: >= 4 Fold Increase (n=71,39)	34.3 (19.13 to 52.21)	0.0 (0.00 to 60.24)		
Day 366: O18A: >= 2 Fold Increase (n=71,39)	26.1 (16.25 to 38.06)	12.5 (0.32 to 52.65)		
Day 731: O18A: >= 2 Fold Increase (n=71,39)	13.6 (6.04 to 24.98)	0.0 (0.00 to 40.96)		
Day 1096: O18A: >= 2 Fold Increase (n=71,39)	5.5 (1.14 to 15.12)	0.0 (0.00 to 45.93)		
Day 1461: O18A:>= 2 Fold Increase (n=71,39)	20.0 (8.44 to 36.94)	0.0 (0.00 to 60.24)		
Day 366: : >= 4 Fold Increase (n=71,39)	13.0 (6.14 to 23.32)	0.0 (0.00 to 36.94)		
Day 731: O18A: >= 4 Fold Increase (n=71,39)	5.1 (1.06 to 14.15)	0.0 (0.00 to 40.96)		
Day 1096: O18A: >= 4 Fold Increase (n=71,39)	0.0 (0.00 to 6.49)	0.0 (0.00 to 45.93)		
Day 1461: O18A: >= 4 Fold Increase (n=71,39)	5.7 (0.70 to 19.16)	0.0 (0.00 to 19.16)		
Day 366: O25B: >= 2 Fold Increase (n=71,39)	16.2 (8.36 to 27.10)	0.0 (0.00 to 36.94)		
Day 731: O25B: >= 2 Fold Increase (n=71,39)	12.1 (4.99 to 23.30)	0.0 (0.00 to 40.96)		
Day 1096: O25B: >= 2 Fold Increase (n=71,39)	1.9 (0.05 to 9.89)	0.0 (0.00 to 45.9)		
Day 1461: O25B: >= 2 Fold Increase (n=71,39)	5.9 (0.72 to 19.68)	0.0 (0.00 to 60.24)		
Day 366: O25B: >= 4 Fold Increase (n=71,39)	8.8 (3.31 to 18.22)	0.0 (0.00 to 36.94)		
Day 731: O25B: >= 4 Fold Increase (n=71,39)	3.4 (0.42 to 11.91)	0.0 (0.00 to 40.96)		
Day 1096: O25B: >= 4 Fold Increase (n=71,39)	0.0 (0.00 to 6.60)	0.0 (0.00 to 45.93)		
Day 1461: O25B: >= 4 Fold Increase (n=71,39)	0.0 (0.00 to 10.28)	0.0 (0.00 to 60.24)		
Day 366: O75: = 2 Fold Increase (n=71,39)	29.0 (18.69 to 41.16)	25.0 (3.19 to 65.09)		
Day 731: O75: >= 2 Fold Increase (n=71,39)	22.4 (12.51 to 35.27)	14.3 (0.36 to 57.87)		

Day 1096: O75: >= 2 Fold Increase (n=71,39)	38.9 (25.92 to 53.12)	16.7 (0.42 to 64.12)		
Day 1461: O75: >= 2 Fold Increase (n=71,39)	14.3 (4.81 to 30.26)	25.0 (0.63 to 80.59)		
Day 366: O75: >= 4 Fold Increase (n=71,39)	11.6 (5.14 to 21.57)	12.5 (0.32 to 52.65)		
Day 731: O75: >= 4 Fold Increase (n=71,39)	12.1 (4.99 to 23.30)	0.0 (0.00 to 40.96)		
Day 1096: O75: >= 4 Fold Increase (n=71,39)	20.4 (10.63 to 33.53)	16.7 (0.42 to 64.12)		
Day 1461: O75: >= 4 Fold Increase (n=71,39)	8.6 (1.80 to 23.06)	25.0 (0.63 to 80.59)		

Statistical analyses

No statistical analyses for this end point

Secondary: Cohort 2: Correlation Between the Multiplex ECL-Based Immunoassay and the MOPA Functional Titers by Serotype on Day 30

End point title	Cohort 2: Correlation Between the Multiplex ECL-Based Immunoassay and the MOPA Functional Titers by Serotype on Day 30[55]

End point description:

Correlation between the multiplex ECL-based immunoassay and the MOPA functional titers by serotypes O1A, O2, O4, O6A, O15, O16, O18A, O25B, and O75 on Day 30 was analyzed. Data was planned to be analyzed for specified arms only. PPI analysis set included all randomized and vaccinated participants, for whom immunogenicity data were available excluding participants with major protocol deviations expected to impact the immunogenicity outcomes. For serotype O8 functional IgG serum antibodies were not evaluated as the assay was not able to detect vaccine-induced functional antibodies against the O8 serotype. Here, "N" (number of participants analyzed) signifies participants evaluable for this outcome measure and "n" (number analyzed) signifies those participants who were evaluable at specified categories.

End point type	Secondary

End point timeframe:

Day 30

Notes:

[55] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: The data was planned for specified baseline arms only.

End point values	Cohort 2: ExPEC10V High Dose	Cohort 2: Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	258	69		
Units: correlation coefficient				
number (confidence interval 95%)				
Serotype O1A (n=258, 69)	0.35 (0.24 to 0.46)	0.20 (-0.04 to 0.42)		
Serotype O2 (n=258, 69)	0.59 (0.50 to 0.66)	0.47 (0.26 to 0.64)		
Serotype O4 (n=258, 69)	0.61 (0.53 to 0.68)	0.20 (-0.03 to 0.42)		
Serotype O6A (n=258, 69)	0.55 (0.45 to 0.63)	0.30 (0.07 to 0.50)		

Serotype O15 (n=258, 69)	0.54 (0.45 to 0.63)	0.41 (0.20 to 0.59)		
Serotype O16 (n=258, 69)	0.70 (0.63 to 0.76)	0.41 (0.19 to 0.59)		
Serotype O18A (n=258, 69)	0.60 (0.51 to 0.67)	0.19 (-0.05 to 0.41)		
Serotype O25B (n=258, 69)	0.66 (0.58 to 0.72)	0.40 (0.19 to 0.58)		
Serotype O75 (n=257, 68)	0.56 (0.47 to 0.64)	0.28 (0.04 to 0.49)		

Statistical analyses

No statistical analyses for this end point

Secondary: Cohort 2: Geometric Mean Titers (GMTs) of Serotype-specific Total Immunoglobulin G (IgG) Serum Antibodies as Measured by Multiplex ECL Based Immunoassay on Days 15 and 181

End point title	Cohort 2: Geometric Mean Titers (GMTs) of Serotype-specific Total Immunoglobulin G (IgG) Serum Antibodies as Measured by Multiplex ECL Based Immunoassay on Days 15 and 181[56]

End point description:

GMTs of serotype-specific total IgG serum antibodies as measured by ECL based immunoassay were reported. GMTs for each antigen serotypes O1A, O2, O4, O6A, O8, O15, O16, O18A, O25B, O75 and EPA were determined in serum from collected blood samples. Data was planned to be analyzed for specified arms only. PPI analysis set included all randomized and vaccinated participants, for whom immunogenicity data were available excluding participants with major protocol deviations expected to impact the immunogenicity outcomes. Here, "N" (number of participants analyzed) signifies participants evaluable for this outcome measure and "n" (number analyzed) signifies those participants who were evaluable at specified categories. 9999.9 signifies lower limit of 95% CI could not be calculated as values were below lower limit of quantification (LLOQ), that is, O1A: 69149, O2: 65287, O4: 67356, O6A: 150748, O8: 72196, O15: 66910, O16: 71586, O18A: 70519, O25B: 61990, O75: 133019, and EPA: 66165.

End point type	Secondary

End point timeframe:

At Days 15 and 181

Notes:

[56] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: The data was planned for specified baseline arms only.

End point values	Cohort 2: ExPEC10V High Dose	Cohort 2: Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	256	131		
Units: titers				
number (confidence interval 95%)				
Serotype O1A (n=253, 131): Day 15	6440111.0 (5964513.8 to 6953631.4)	1683620.1 (1434083.1 to 1976577.8)		
Serotype O2 (n=253, 131): Day 15	5984689.5 (5506341.8 to 6504592.4)	758680.9 (637710.3 to 902599.0)		

Serotype O4 (n=253, 131): Day 15	3674695.0 (3268908.7 to 4130853.6)	752878.3 (648044.1 to 874671.5)		
Serotype O6A (n=253, 131): Day 15	5549559.4 (5061238.2 to 6084995.1)	1864516.2 (1602306.3 to 2169635.5)		
Serotype O8 (n=253, 131): Day 15	6259628.9 (5787049.2 to 6770800.1)	2402212.7 (2080311.6 to 2773923.8)		
Serotype O15 (n=253, 131): Day 15	5820591.1 (5382542.2 to 6294289.8)	1196527.5 (1020092.0 to 1403479.3)		
Serotype O16 (n=253, 131): Day 15	5328787.2 (4876101.2 to 5823499.4)	1094722.5 (967329.6 to 1238892.4)		
Serotype O18A (n=253, 131): Day 15	4224096.2 (3810089.9 to 4683088.6)	1343124.1 (1178653.4 to 1530545.3)		
Serotype O25B (n=253, 131): Day 15	2205580.7 (1907527.9 to 2550204.4)	369020.0 (309515.7 to 439964.0)		
Serotype O75 (n=253, 131): Day 15	3879088.3 (3534225.0 to 4257602.7)	1525428.5 (1313220.7 to 1771927.8)		
Serotype EPA: (n=253, 131): Day 15	764611.5 (606266.0 to 964314.1)	76119.8 (9999.9 to 92444.3)		
Serotype O1A (n=255, 122): Day 181	5181579.3 (4717321.1 to 5691527.8)	1363698.1 (1134292.4 to 1639500.3)		
Serotype O2 (n=256, 123): Day 181	5104290.1 (4630408.3 to 5626669.7)	772833.5 (647611.4 to 922268.6)		
Serotype O4 (n=255, 123): Day 181	2464185.1 (2180166.2 to 2785204.2)	748466.8 (626770.4 to 893792.2)		
Serotype O6A (n=255, 123): Day 181	4237338.6 (3839748.2 to 4676097.9)	1377697.3 (1156472.5 to 1641240.8)		
Serotype O8 (n=256, 123): Day 181	5341568.9 (4901755.3 to 5820845.0)	2347175.9 (2014621.2 to 2734625.6)		
Serotype O15 (n=255, 123): Day 181	4651707.1 (4246266.4 to 5095859.9)	1212443.2 (1022590.8 to 1437543.2)		
Serotype O16 (n=253, 131): Day 181	4002647.6 (3633889.3 to 4408826.6)	974253.6 (851675.7 to 1114473.6)		
Serotype O18A (n=255, 123): Day 181	3510981.8 (3167417.1 to 3891812.4)	1440992.4 (1251837.9 to 1658728.5)		
Serotype O25B (n=255, 123): Day 181	1448059.1 (1242167.0 to 1688078.3)	338325.5 (276179.7 to 414455.2)		
Serotype O75 (n=256, 123): Day 181	3483252.0 (3157048.6 to 3843160.4)	1605445.2 (1367665.3 to 1884565.2)		
Serotype EPA: (n=256, 123): Day 181	415564.1 (335178.0 to 515229.3)	71976.3 (9999.9 to 86879.0)		

Statistical analyses

No statistical analyses for this end point

Secondary: Cohort 2: Geometric Mean Ratio (GMR) of Fold Changes from Baseline for Serotype-specific Antibodies Measured by Multiplex ECL Based Immunoassay on Days 15 and 181

End point title	Cohort 2: Geometric Mean Ratio (GMR) of Fold Changes from Baseline for Serotype-specific Antibodies Measured by Multiplex ECL Based Immunoassay on Days 15 and 181[57]

End point description:

GMR of fold changes from baseline for serotype specific antibodies as measured by multiplex ECL based immunoassay on Days 15 and 181 were reported. GMR for each antigen serotypes O1A, O2, O4, O6A, O8, O15, O16, O18A, O25B, and O75 were determined in serum from collected blood samples by ECL based immunoassay. GMR of fold change from baseline was calculated as the ratio of GMTs on Days 15 and 181 and pre-vaccination (on Day 1). PPI analysis set included all randomized and vaccinated participants, for whom immunogenicity data were available excluding participants with major protocol deviations expected to impact the immunogenicity outcomes. Here, "N" (number of participants analyzed) signifies participants evaluable for this outcome measure and "n" (number analyzed) signifies those participants who were evaluable at specified categories.

End point type	Secondary

End point timeframe:

Baseline (Day 1, pre-vaccination), Days 15 and 181

Notes:

[57] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: The data was planned for specified baseline arms only.

End point values	Cohort 2: ExPEC10V High Dose	Cohort 2: Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	258	131		
Units: ratio				
geometric mean (confidence interval 95%)				
Serotype O1A (n=253, 131): Day 15	4.40 (3.932 to 4.928)	0.99 (0.967 to 1.023)		
Serotype O2 (n=253, 131): Day 15	7.96 (7.052 to 8.987)	0.99 (0.933 to 1.057)		
Serotype O4 (n=253, 131): Day 15	5.45 (4.825 to 6.146)	1.02 (0.988 to 1.063)		
Serotype O6A (n=253, 131): Day 15	3.89 (3.518 to 4.298)	1.03 (0.989 to 1.070)		
Serotype O8 (n=253, 131): Day 15	2.89 (2.619 to 3.194)	1.03 (0.992 to 1.072)		
Serotype O15 (n=253, 131): Day 15	4.93 (4.420 to 5.505)	1.02 (0.976 to 1.070)		
Serotype O16 (n=253, 131): Day 15	5.14 (4.615 to 5.715)	1.03 (0.984 to 1.078)		
Serotype O18A (n=253, 131): Day 15	3.63 (3.266 to 4.031)	1.06 (1.023 to 1.093)		
Serotype O25B (n=253, 131): Day 15	5.80 (4.990 to 6.748)	1.01 (0.963 to 1.068)		
Serotype O75 (n=253, 131): Day 15	2.42 (2.217 to 2.644)	1.02 (0.977 to 1.071)		
Serotype O1A (n=258, 123): Day 181	3.54 (3.186 to 3.937)	0.85 (0.778 to 0.930)		

Serotype O2 (n=258, 123): Day 181	6.79 (6.020 to 7.649)	1.10 (0.964 to 1.252)		
Serotype O4 (n=258, 123): Day 181	3.68 (3.284 to 4.116)	1.02 (0.948 to 1.105)		
Serotype O6A (n=258, 123): Day 181	2.88 (2.569 to 3.222)	0.78 (0.678 to 0.894)		
Serotype O8 (n=258, 123): Day 181	2.45 (2.239 to 2.681)	1.06 (1.000 to 1.130)		
Serotype O15 (n=258, 123): Day 181	4.08 (3.692 to 4.514)	1.08 (1.016 to 1.150)		
Serotype O16 (n=258, 131): Day 15	3.98 (3.605 to 4.385)	0.92 (0.859 to 0.982)		
Serotype O18A (n=258, 123): Day 181	2.91 (2.657 to 3.179)	1.16 (1.088 to 1.234)		
Serotype O25B (n=258, 123): Day 181	3.73 (3.237 to 4.300)	0.95 (0.814 to 1.102)		
Serotype O75 (n=258, 123): Day 181	2.14 (1.983 to 2.307)	1.11 (1.029 to 1.196)		

Statistical analyses

No statistical analyses for this end point

Secondary: Cohort 2: Percentage of Participants With a >= 2-Fold Increase in Serotype-specific Serum Antibody Titers Measured by Multiplex ECL Based Immunoassay on Days 15 and 181

End point title	Cohort 2: Percentage of Participants With a >= 2-Fold Increase in Serotype-specific Serum Antibody Titers Measured by Multiplex ECL Based Immunoassay on Days 15 and 181[58]

End point description:

Percentage of participants with a >=2-fold increase from baseline in serotype specific serum antibody titers as measured by multiplex ECL based immunoassay on Days 15 and 181 were reported. The fold (>=2-fold increase from baseline to Days 15 and 181) for the serotypes O1A, O2, O4, O6A, O8, O15, O16, O18A, O25B, and O75 was calculated as the ratio of titer values of serum antibody on Days 15 and 181 and pre-vaccination (on Day 1 that is Day 15/Day 1 and Day 181/Day 1). PPI analysis set included all randomized and vaccinated participants, for whom immunogenicity data were available excluding participants with major protocol deviations expected to impact the immunogenicity outcomes. Here, "N" (number of participants analyzed) signifies participants evaluable for this outcome measure and "n" (number analyzed) signifies those participants who were evaluable at specified categories.

End point type	Secondary

End point timeframe:

Baseline (Day 1, pre-vaccination), Days 15 and 181

Notes:

[58] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: The data was planned for specified baseline arms only.

End point values	Cohort 2: ExPEC10V High Dose	Cohort 2: Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	258	131		
Units: Percentage of Participants				
number (confidence interval 95%)				
Serotype O1A (n=253, 131): Day 15	76.3 (70.55 to 81.39)	0 (0 to 2.78)		

Serotype O2 (n=253, 131): Day 15	88.9 (84.40 to 92.52)	0.8 (0.02 to 4.18)		
Serotype O4 (n=253, 131): Day 15	81.8 (76.50 to 86.37)	1.5 (0.19 to 5.41)		
Serotype O6A (n=253, 131): Day 15	73.9 (68.04 to 79.21)	0.8 (0.02 to 4.18)		
Serotype O8 (n=253, 131): Day 15	62.1 (55.77 to 68.06)	1.5 (0.19 to 5.41)		
Serotype O15 (n=253, 131): Day 15	82.2 (76.93 to 86.72)	0.8 (0.02 to 4.18)		
Serotype O16 (n=253, 131): Day 15	86.2 (81.29 to 90.17)	0.8 (0.02 to 4.18)		
Serotype O18A (n=253, 131): Day 15	69.2 (63.08 to 74.80)	0.8 (0.02 to 4.18)		
Serotype O25B (n=253, 131): Day 15	77.1 (71.40 to 82.11)	0.8 (0.02 to 4.18)		
Serotype O75 (n=253, 131): Day 15	52.6 (46.22 to 58.86)	1.5 (0.19 to 5.41)		
Serotype O1A (n=258, 123): Day 181	71.4 (65.40 to 76.84)	2.5 (0.51 to 7.02)		
Serotype O2 (n=258, 123): Day 181	86.7 (81.94 to 90.62)	12.2 (6.99 to 19.32)		
Serotype O4 (n=258, 123): Day 181	69.0 (62.95 to 74.64)	3.3 (0.89 to 8.12)		
Serotype O6A (n=258, 123): Day 181	64.3 (58.10 to 70.19)	6.5 (2.85 to 12.41)		
Serotype O8 (n=258, 123): Day 181	55.9 (49.54 to 62.04)	3.3 (0.89 to 8.12)		
Serotype O15 (n=258, 123): Day 181	79.6 (74.13 to 84.38)	1.6 (0.20 to 5.75)		
Serotype O16 (n=258, 131): Day 15	78.8 (73.29 to 83.67)	0 (0 to 2.95)		
Serotype O18A (n=258, 123): Day 181	62.4 (56.09 to 68.32)	2.4 (0.51 to 6.96)		
Serotype O25B (n=258, 123): Day 181	65.5 (59.30 to 71.31)	10.6 (5.75 to 17.40)		
Serotype O75 (n=258, 123): Day 181	50.8 (44.48 to 57.06)	4.9 (1.81 to 10.32)		

Statistical analyses

No statistical analyses for this end point

Secondary: Cohort 2: Percentage of Participants With a >= 4-Fold Increase in Serotype-specific Serum Antibody Titers Measured by Multiplex ECL Based Immunoassay on Days 15 and 181

End point title	Cohort 2: Percentage of Participants With a >= 4-Fold Increase in Serotype-specific Serum Antibody Titers Measured by Multiplex ECL Based Immunoassay on Days 15 and 181[59]

End point description:

Percentage of participants with a >=4-fold increase from baseline in serotype specific serum antibody titers as measured by multiplex ECL based immunoassay on Days 15 and 181 were reported. The fold (>=4-fold increase from baseline to Days 15 and 181) for the serotypes O1A, O2, O4, O6A, O8, O15, O16, O18A, O25B, and O75 was calculated as the ratio of titer values of serum antibody on Days 15 and 181 and pre-vaccination (on Day 1 that is Day 15/Day 1 and Day 181/Day 1). PPI analysis set included all randomized and vaccinated participants, for whom immunogenicity data were available excluding participants with major protocol deviations expected to impact the immunogenicity outcomes. Here, "N" (number of participants analyzed) signifies participants evaluable for this outcome measure and "n" (number analyzed) signifies those participants who were evaluable at specified categories.

End point type	Secondary

End point timeframe:

Baseline (Day 1, pre-vaccination), Days 15 and 181

Notes:

[59] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.

Justification: The data was planned for specified baseline arms only.

End point values	Cohort 2: ExPEC10V High Dose	Cohort 2: Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	258	131		
Units: Percentage of Participants				
number (confidence interval 95%)				
Serotype O1A (n=253, 131): Day 15	54.5 (48.19 to 60.79)	0 (0 to 2.78)		
Serotype O2 (n=253, 131): Day 15	77.9 (72.24 to 82.83)	0.8 (0.02 to 4.18)		
Serotype O4 (n=253, 131): Day 15	60.9 (54.56 to 66.92)	0.8 (0.02 to 4.18)		
Serotype O6A (n=253, 131): Day 15	49.8 (43.48 to 56.13)	0 (0 to 2.78)		
Serotype O8 (n=253, 131): Day 15	36.4 (30.43 to 42.62)	1.5 (0.19 to 5.41)		
Serotype O15 (n=253, 131): Day 15	58.9 (52.56 to 65.02)	0.8 (0.02 to 4.18)		
Serotype O16 (n=253, 131): Day 15	62.5 (56.17 to 68.44)	0.8 (0.02 to 4.18)		
Serotype O18A (n=253, 131): Day 15	47.4 (41.14 to 53.78)	0 (0 to 2.78)		
Serotype O25B (n=253, 131): Day 15	58.1 (51.76 to 64.25)	0.8 (0.02 to 4.18)		
Serotype O75 (n=253, 131): Day 15	24.5 (19.34 to 30.28)	1.5 (0.19 to 5.41)		
Serotype O1A (n=258, 123): Day 181	48.2 (41.96 to 54.55)	0 (0 to 2.98)		
Serotype O2 (n=258, 123): Day 181	69.9 (63.90 to 75.47)	7.3 (3.40 to 13.44)		
Serotype O4 (n=258, 123): Day 181	43.5 (37.35 to 49.86)	2.4 (0.51 to 6.96)		
Serotype O6A (n=258, 123): Day 181	39.2 (33.18 to 45.50)	0.8 (0.02 to 4.45)		
Serotype O8 (n=258, 123): Day 181	27.3 (21.98 to 33.24)	0.8 (0.02 to 4.45)		
Serotype O15 (n=258, 123): Day 181	52.5 (46.23 to 58.81)	0.8 (0.02 to 4.45)		
Serotype O16 (n=258, 131): Day 181	49.8 (43.50 to 56.11)	0 (0 to 2.95)		
Serotype O18A (n=258, 123): Day 181	34.9 (29.06 to 41.10)	0 (0 to 2.95)		
Serotype O25B (n=258, 123): Day 181	44.3 (38.12 to 50.64)	6.5 (2.85 to 12.41)		
Serotype O75 (n=258, 123): Day 181	16.0 (11.74 to 21.09)	3.3 (0.89 to 8.12)		

Statistical analyses

No statistical analyses for this end point

Secondary: Cohort 2: Geometric Mean Titers (GMTs) of Serotype-specific Antibodies Against Specified Antigens Measured by MOPA on Day 181

End point title	Cohort 2: Geometric Mean Titers (GMTs) of Serotype-specific Antibodies Against Specified Antigens Measured by MOPA on Day 181[60]

End point description:

GMTs of serotype-specific total IgG serum antibodies as measured by MOPA were reported. Serotypes: O1A, O2, O4, O6A, O15, O16, O18A, O25B, and O75 were determined in serum from collected blood samples. PPI analysis set included all randomized and vaccinated participants, for whom immunogenicity data were available excluding those samples with major protocol deviations expected to impact the immunogenicity outcomes. Participants in this analysis set had to have at least a baseline antibody titer measurement. For serotype O8 functional IgG serum antibodies were not evaluated as the assay was not able to detect vaccine-induced functional antibodies against the O8 serotype. Here, "N" (Number of participants analyzed) signifies participants evaluable for this endpoint. 9.9999 signifies geometric mean and lower limit of 95% CI could not be calculated as values were below LLOQ, that is, O1A: 33, O2: 42, O4: 12, O6A: 62, O15: 75, O16: 17, O18A: 44, O25B: 58, O75: 14.

End point type	Secondary

End point timeframe:

At Day 181

Notes:

[60] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: The data was planned for specified baseline arms only.

End point values	Cohort 2: ExPEC10V High Dose	Cohort 2: Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	258	123		
Units: Titer				
geometric mean (confidence interval 95%)				
Serotype O1A	411.3 (355.6 to 475.7)	334.1 (270.8 to 412.3)		
Serotype O2	1684.8 (1413.3 to 2008.5)	352.1 (284.7 to 435.5)		
Serotype O4	591.2 (512.8 to 681.6)	204.3 (173.2 to 241.0)		
Serotype O6A	747.6 (643.4 to 868.6)	379.7 (291.9 to 494.0)		
Serotype O15	1756.2 (1502.7 to 2052.5)	469.6 (372.5 to 592.2)		
Serotype O16	890.9 (758.7 to 1046.1)	144.5 (115.9 to 180.1)		
Serotype O18A	423.9 (370.3 to 485.2)	199.7 (158.7 to 251.2)		
Serotype O25B	103.1 (88.9 to 119.6)	9.9999 (-9.9999 to 59.1)		
Serotype O75	160.4 (138.8 to 185.3)	66.6 (52.9 to 83.8)		

Statistical analyses

No statistical analyses for this end point

Secondary: Cohort 2: Percentage of Participants With a >= 2-Fold and >=4-Fold Increase in Serotype-specific Serum Antibody Titers Measured by MOPA on Day 181

End point title	Cohort 2: Percentage of Participants With a >= 2-Fold and >=4-Fold Increase in Serotype-specific Serum Antibody Titers Measured by MOPA on Day 181[61]

End point description:

Percentage of participants with a >=2-fold and >=4-fold increase from baseline in serotype specific serum antibody titers as measured by MOPA on Day 181 was reported. The fold (>=2-fold and >=4-fold) increase from baseline to Day 181 for the serotypes O1A, O2, O4, O6A, O15, O16, O18A, O25B and O75 was calculated as the ratio of titer values of serum antibody on Day 181 and pre-vaccination (on Day 1) that is, Day 181/Day 1. The PPI analysis set was analyzed. Participants in this analysis set had to have at least a baseline antibody titer measurement. For serotype O8 functional IgG serum antibodies were not evaluated as the assay was not able to detect vaccine-induced functional antibodies against the O8 serotype. Here, "N" (Number of participants analyzed) signifies participants evaluable for this endpoint.

End point type	Secondary

End point timeframe:

Baseline (Day 1, pre-vaccination) and Day 181

Notes:

[61] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: The data was planned for specified baseline arms only.

End point values	Cohort 2: ExPEC10V High Dose	Cohort 2: Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	258	123		
Units: Percentage of participants				
number (confidence interval 95%)				
Serotype O1A: >= 2 Fold Increase	22.1 (17.18 to 27.66)	12.5 (5.88 to 22.41)		
Serotype O1A: >= 4 Fold Increase	8.5 (5.42 to 12.63)	1.4 (0.04 to 7.50)		
Serotype O2: >= 2 Fold Increase	64.7 (58.56 to 70.55)	12.5 (5.88 to 22.41)		
Serotype O2: >= 4 Fold Increase	42.6 (36.52 to 48.92)	2.8 (0.34 to 9.68)		
Serotype O4: >= 2 Fold Increase	61.6 (55.39 to 67.59)	19.4 (11.06 to 30.47)		
Serotype O4: >= 4 Fold Increase	36.4 (30.55 to 42.63)	2.8 (0.34 to 9.68)		
Serotype O6A: >= 2 Fold Increase	31.4 (25.78 to 37.44)	9.7 (4.00 to 19.01)		
Serotype O6A: >= 4 Fold Increase	12.0 (8.31 to 16.62)	1.4 (0.04 to 7.50)		

Serotype O15: >= 2 Fold Increase	71.7 (65.79 to 77.12)	23.6 (14.40 to 35.09)		
Serotype O15: >= 4 Fold Increase	51.2 (44.89 to 57.41)	5.6 (1.53 to 13.62)		
Serotype O16: >= 2 Fold Increase	79.8 (74.42 to 84.57)	25.4 (13.08 to 33.14)		
Serotype O16: >= 4 Fold Increase	49.6 (43.27 to 55.95)	0.0 (0.00 to 4.93)		
Serotype O18A: >= 2 Fold Increase	53.5 (47.20 to 59.70)	16.7 (8.92 to 27.30)		
Serotype O18A: >= 4 Fold Increase	22.9 (17.89 to 28.48)	2.8 (0.34 to 9.68)		
Serotype O25B: >= 2 Fold Increase	26.0 (20.73 to 31.77)	4.2 (0.87 to 11.70)		
Serotype O25B: >= 4 Fold Increase	11.6 (7.98 to 16.18)	1.4 (0.04 to 7.50)		
Serotype O75: >= 2 Fold Increase	55.5 (49.15 to 61.66)	29.6 (19.33 to 41.59)		
Serotype O75: >= 4 Fold Increase	32.8 (27.09 to 38.93)	5.6 (1.56 to 13.80)		

Statistical analyses

No statistical analyses for this end point

Secondary: Cohort 2: Geometric Mean Ratio (GMR) of Fold Changes from Baseline for Serotype-specific Antibodies Measured by MOPA on Day 181

End point title	Cohort 2: Geometric Mean Ratio (GMR) of Fold Changes from Baseline for Serotype-specific Antibodies Measured by MOPA on Day 181[62]

End point description:

GMR of fold changes from baseline for serotype specific antibodies as measured by MOPA on Day 181 were reported. GMR for each antigen serotypes O1A, O2, O4, O6A, O15, O16, O18A, O25B and O75 were determined in serum from collected blood samples by MOPA. GMR of fold change from baseline was calculated as the ratio of GMTs on Day 181 and pre-vaccination (on Day 1). The PPI analysis set included all randomized and vaccinated participants, for whom immunogenicity data were available excluding those samples with major protocol deviations expected to impact the immunogenicity outcomes. Participants in this analysis set had to have at least a baseline antibody titer measurement. For serotype O8 functional IgG serum antibodies were not evaluated as the assay was not able to detect vaccine-induced functional antibodies against the O8 serotype. Here, "N" (Number of participants analyzed) signifies participants evaluable for this endpoint.

End point type	Secondary

End point timeframe:

Baseline (Day 1, pre-vaccination), Day 181

Notes:

[62] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: The data was planned for specified baseline arms only.

End point values	Cohort 2: ExPEC10V High Dose	Cohort 2: Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	258	123		
Units: Ratio				
geometric mean (confidence interval				

95%)				
Serotype O1A	1.07 (0.948 to 1.201)	0.80 (0.671 to 0.954)		
Serotype O2	3.94 (3.285 to 4.727)	0.80 (0.658 to 0.983)		
Serotype O4	3.16 (2.716 to 3.686)	1.15 (0.988 to 1.349)		
Serotype O6A	1.41 (1.244 to 1.599)	0.80 (0.680 to 0.938)		
Serotype O15	4.19 (3.568 to 4.919)	1.13 (0.885 to 1.431)		
Serotype O16	6.63 (5.601 to 7.844)	1.21 (0.994 to 1.483)		
Serotype O18A	2.30 (2.008 to 2.641)	1.03 (0.875 to 1.223)		
Serotype O25B	1.42 (1.277 to 1.571)	0.94 (0.857 to 1.038)		
Serotype O75	2.56 (2.246 to 2.920)	1.18 (0.965 to 1.442)		

Statistical analyses

No statistical analyses for this end point

Secondary: Cohort 2: Geometric Mean Titers (GMTs) of Serotype-specific Antibodies Against Specified Antigens Measured by Multiplex ECL Based Immunoassay on Day 366

End point title	Cohort 2: Geometric Mean Titers (GMTs) of Serotype-specific Antibodies Against Specified Antigens Measured by Multiplex ECL Based Immunoassay on Day 366[63]

End point description:

GMTs of serotype-specific antibodies as measured by ECL based immunoassay were reported. GMTs for the serotypes O1A, O2, O4, O6A, O8, O15, O16, O18A, O25B, O75 were determined. The PPI analysis set included all randomized and vaccinated participants, for whom immunogenicity data were available excluding those samples with major protocol deviations expected to impact the immunogenicity outcomes. Participants in this analysis set had to have at least a baseline antibody titer measurement. Here, "N" (Number of participants analyzed) signifies participants evaluable for this endpoint.

End point type	Secondary

End point timeframe:

At Day 366

Notes:

[63] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: The data was planned for specified baseline arms only.

End point values	Cohort 2: ExPEC10V High Dose	Cohort 2: Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	255	129		
Units: Titer				
geometric mean (confidence interval 95%)				
Serotype O1A	4022674.3 (3621999.8 to 4467672.3)	1425709.7 (1193504.1 to 1703092.6)		

Serotype O2	4539197.6 (4061044.2 to 5073649.6)	945957.9 (770610.6 to 1161204.5)		
Serotype O4	1877926.0 (1662018.9 to 2121880.9)	781470.1 (645829.6 to 945598.4)		
Serotype O6A	3366305.0 (3030852.9 to 3738884.7)	1746191.5 (1476781.0 to 2064750.9)		
Serotype O8	4468182.7 (4073515.2 to 4901088.0)	2612423.8 (2233155.6 to 3056105.0)		
Serotype O15	3690523.9 (3327526.1 to 4093120.9)	1379883.1 (1146231.7 to 1661162.7)		
Serotype O16	2732322.4 (2460092.5 to 3034676.8)	909470.4 (771204.3 to 1072525.6)		
Serotype O18A	2902883.8 (2610124.6 to 3228479.7)	1538291.3 (1327257.2 to 1782880.0)		
Serotype 25B	1010150.2 (874663.8 to 1166623.5)	344740.3 (281210.9 to 422621.9)		
Serotype O75	2675947.8 (2416208.1 to 2963609.2)	1512970.1 (1293159.3 to 1770144.2)		

Statistical analyses

No statistical analyses for this end point

Secondary: Cohort 2: Number of Participants With Serious Adverse Events (SAEs) Related to Study Vaccine or Study Procedure From Day 182 up to End of Study (Day 1826)

End point title	Cohort 2: Number of Participants With Serious Adverse Events (SAEs) Related to Study Vaccine or Study Procedure From Day 182 up to End of Study (Day 1826)[64]

End point description:

An AE is any untoward medical occurrence in a participant participating in a clinical study that does not necessarily have a causal relationship with the pharmaceutical/biological agent under study. An SAE is an AE resulting in any of the following outcomes or deemed significant for any other reason: death; initial or prolonged inpatient hospitalization; life- threatening experience (immediate risk of dying); persistent or significant disability/incapacity; congenital anomaly/birth defect; suspected transmission of any infectious agent via a medicinal product or medically important. The FAS included all randomized participants with a vaccine administration documented.

End point type	Secondary

End point timeframe:

From Day 182 up to end of study (Day 1826)

Notes:

[64] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: The data was planned for specified baseline arms only.

End point values	Cohort 2: ExPEC10V High Dose	Cohort 2: Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	278	138		
Units: Participants	0	0		

Statistical analyses

No statistical analyses for this end point

Secondary: Cohort 2: Percentage of Participants With a >= 2-Fold and >=4-Fold Increase in Serotype-specific Serum Antibody Titers Measured by Multiplex ECL Based Immunoassay on Day 366

End point title	Cohort 2: Percentage of Participants With a >= 2-Fold and >=4-Fold Increase in Serotype-specific Serum Antibody Titers Measured by Multiplex ECL Based Immunoassay on Day 366[65]

End point description:

Percentage of participants with a >=2-fold and >=4-fold increase from baseline in serotype specific serum antibody titers as measured by multiplex ECL based immunoassay on Day 366 was reported. The fold (>=2-fold and >=4- fold) increase from baseline to Day 366 for the serotypes O1A, O2, O4, O6A, O8, O15, O16, O18A, O25B, O75 was calculated as the ratio of titer values of serum antibodies on Day 366 and pre-vaccination (on day 1) that is, Day 366/ Day 1. The PPI analysis set included all randomized and vaccinated participants, for whom immunogenicity data were available excluding those samples with major protocol deviations expected to impact the immunogenicity outcomes. Participants in this analysis set had to have at least a baseline antibody titer measurement. Here, "N" (Number of participants analyzed) signifies participants evaluable for this endpoint.

End point type	Secondary

End point timeframe:

Baseline (Day 1, pre-vaccination) and Day 366

Notes:

[65] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: The data was planned for specified baseline arms only.

End point values	Cohort 2: ExPEC10V High Dose	Cohort 2: Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	255	129		
Units: Percentage of participants				
number (confidence interval 95%)				
Serotype O1A: >= 2 Fold Increase	62.4 (56.09 to 68.32)	7.0 (3.24 to 12.83)		
Serotype O1A: >= 4 Fold Increase	34.9 (29.06 to 41.10)	0.0 (0.00 to 2.82)		
Serotype O2: >= 2 Fold Increase	81.6 (76.26 to 86.13)	18.6 (12.30 to 26.41)		
Serotype O2: >= 4 Fold Increase	66.3 (60.11 to 72.05)	3.9 (1.27 to 8.81)		
Serotype O4: >= 2 Fold Increase	60.0 (53.70 to 66.06)	11.6 (6.66 to 18.45)		
Serotype O4: >= 4 Fold Increase	32.5 (26.84 to 38.67)	3.1 (0.85 to 7.75)		

Serotype O6A: >= 2 Fold Increase	54.7 (48.38 to 60.96)	2.3 (0.48 to 6.65)		
Serotype O6A: >= 4 Fold Increase	22.0 (17.11 to 27.65)	0.8 (0.02 to 4.24)		
Serotype O8: >= 2 Fold Increase	51.0 (44.67 to 57.27)	10.1 (5.48 to 16.62)		
Serotype O8: >= 4 Fold Increase	18.4 (13.87 to 23.74)	3.1 (0.85 to 7.75)		
Serotype O15: >= 2 Fold Increase	67.8 (61.73 to 73.53)	13.2 (7.87 to 20.26)		
Serotype O15: >= 4 Fold Increase	36.9 (30.93 to 43.11)	7.0 (3.24 to 12.83)		
Serotype O16: >= 2 Fold Increase	63.9 (57.70 to 69.82)	2.3 (0.48 to 6.65)		
Serotype O16: >= 4 Fold Increase	27.5 (22.07 to 33.37)	0.8 (0.02 to 4.24)		
Serotype O18A: >= 2 Fold Increase	55.3 (48.96 to 61.50)	11.6 (6.66 to 18.45)		
Serotype O18A: >= 4 Fold Increase	24.3 (19.18 to 30.06)	0.0 (0.00 to 2.82)		
Serotype O25B: >= 2 Fold Increase	56.9 (50.54 to 63.03)	6.2 (2.72 to 11.85)		
Serotype O25B: >= 4 Fold Increase	30.6 (24.99 to 36.64)	2.3 (0.48 to 6.65)		
Serotype O75: >= 2 Fold Increase	33.7 (27.95 to 39.89)	8.6 (4.37 to 14.86)		
Serotype O75: >= 4 Fold Increase	8.2 (5.17 to 12.31)	0.8 (0.02 to 4.28)		

Statistical analyses

No statistical analyses for this end point

Secondary: Cohort 2: Geometric Mean Ratio (GMR) of Fold Changes from Baseline for Serotype-specific Antibodies Measured by Multiplex ECL Based Immunoassay on Day 366

End point title	Cohort 2: Geometric Mean Ratio (GMR) of Fold Changes from Baseline for Serotype-specific Antibodies Measured by Multiplex ECL Based Immunoassay on Day 366[66]

End point description:

GMR of fold changes from baseline for serotype specific antibodies as measured by multiplex ECL based immunoassay on Day 366 were reported. GMR for each antigen serotypes O1A, O2, O4, O6A, O8, O15, O16, O18A, O25B, O75 were determined in serum from collected blood samples by ECL based immunoassay. GMR of fold change from baseline was calculated as the ratio of GMTs on Day 366 and pre-vaccination (on Day 1). The PPI analysis set included all randomized and vaccinated participants, for whom immunogenicity data were available excluding those samples with major protocol deviations expected to impact the immunogenicity outcomes. Participants in this analysis set had to have at least a baseline antibody titer measurement. Here, "N" (Number of participants analyzed) signifies participants evaluable for this endpoint.

End point type	Secondary

End point timeframe:

Baseline (Day 1, pre-vaccination), Day 366

Notes:

[66] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: The data was planned for specified baseline arms only.

End point values	Cohort 2: ExPEC10V High Dose	Cohort 2: Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	255	129		
Units: Ratio				
geometric mean (confidence interval 95%)				
Serotype O1A	2.77 (2.497 to 3.070)	0.83 (0.758 to 0.909)		
Serotype O2	6.05 (5.330 to 6.878)	1.21 (1.087 to 1.342)		
Serotype O4	2.82 (2.536 to 3.144)	1.04 (0.951 to 1.139)		
Serotype O6A	2.31 (2.102 to 2.534)	0.95 (0.875 to 1.028)		
Serotype O8	2.09 (1.915 to 2.277)	1.10 (1.009 to 1.202)		
Serotype O15	3.15 (2.862 to 3.468)	1.18 (1.064 to 1.312)		
Serotype O16	2.63 (2.388 to 2.906)	0.83 (0.753 to 0.920)		
Serotype O18A	2.44 (2.248 to 2.658)	1.19 (1.106 to 1.286)		
Serotype O25B	2.66 (2.365 to 2.983)	0.91 (0.830 to 1.003)		
Serotype O75	1.68 (1.563 to 1.809)	1.00 (0.917 to 1.088)		

Statistical analyses

No statistical analyses for this end point

Secondary: Cohort 2: Geometric Mean Titers (GMTs) of Serotype-specific Antibodies Against Specified Antigens Measured by MOPA on Day 366

End point title	Cohort 2: Geometric Mean Titers (GMTs) of Serotype-specific Antibodies Against Specified Antigens Measured by MOPA on Day 366[67]

End point description:

GMTs of serotype-specific antibodies against specified antigens measured by MOPA on Day 366 were reported. GMTs for each antigen serotypes O1A, O2, O4, O6A, O15, O16, O18A, O25B, and O75 were determined in serum from collected blood samples. PPI analysis set included all randomized and vaccinated participants, for whom immunogenicity data were available excluding those samples with major protocol deviations expected to impact the immunogenicity outcomes. Participants in this analysis set had to have at least a baseline antibody titer measurement. For serotype O8 functional IgG serum antibodies were not evaluated as the assay was not able to detect vaccine-induced functional antibodies against the O8 serotype. Here,"N"(Number of participants analyzed) signifies participants evaluable for this endpoint. 99999 signifies that geometric mean and 95% CI could not be calculated as values were below LLOQ, that is,O1A: 33, O2: 42, O4: 12, O6A: 62, O15: 75, O16: 17, O18A: 44, O25B: 58, O75: 14.

End point type	Secondary

End point timeframe:

At Day 366

Notes:

[67] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: The data was planned for specified baseline arms only.

End point values	Cohort 2: ExPEC10V High Dose	Cohort 2: Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	255	129		
Units: Titer				
geometric mean (confidence interval 95%)				
Serotype O1A	376.0 (325.3 to 434.5)	368.5 (302.4 to 449.1)		
Serotype O2	1167.9 (994.6 to 1371.5)	322.9 (322.9 to 484.5)		
Serotype O4	398.1 (347.2 to 456.5)	191.7 (163.3 to 225.0)		
Serotype O6A	592.2 (509.2 to 688.9)	395.4 (302.6 to 516.7)		
Serotype O15	1125.8 (958.3 to 1322.7)	478.8 (377.2 to 607.7)		
Serotype O16	557.6 (470.4 to 660.9)	134.5 (107.8 to 167.8)		
Serotype O18A	335.1 (291.5 to 385.1)	211.6 (171.5 to 261.1)		
Serotype 25B	78.0 (67.6 to 90.0)	99999 (-99999 to 99999)		
Serotype O75	126.5 (109.7 to 145.9)	78.6 (62.6 to 98.7)		

Statistical analyses

No statistical analyses for this end point

Secondary: Cohort 2: Geometric Mean Ratio (GMR) of Fold Changes From Baseline for Serotype-specific Antibodies Measured by MOPA on Day 366

End point title	Cohort 2: Geometric Mean Ratio (GMR) of Fold Changes From Baseline for Serotype-specific Antibodies Measured by MOPA on Day 366[68]

End point description:

GMR of fold changes from baseline for serotype specific antibodies as measured by MOPA on Day 366 were reported. GMR for each antigen serotypes O1A, O2, O4, O6A, O15, O16, O18A, O25B and O75 were determined in serum from collected blood samples by MOPA. GMR of fold change from baseline was calculated as the ratio of GMTs on Day 366 and pre-vaccination (on Day 1). The PPI analysis set included all randomized and vaccinated participants, for whom immunogenicity data were available excluding those samples with major protocol deviations expected to impact the immunogenicity outcomes. Participants in this analysis set had to have at least a baseline antibody titer measurement. For serotype O8 functional IgG serum antibodies were not evaluated as the assay was not able to detect vaccine-induced functional antibodies against the O8 serotype. Here, "N" (Number of participants analyzed) signifies participants evaluable for this endpoint.

End point type	Secondary

End point timeframe:

Baseline (Day 1, pre-vaccination), Day 366

Notes:

[68] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: The data was planned for specified baseline arms only.

End point values	Cohort 2: ExPEC10V High Dose	Cohort 2: Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	255	129		
Units: Ratio				
geometric mean (confidence interval 95%)				
Serotype O1A	0.99 (0.880 to 1.104)	0.84 (0.704 to 1.013)		
Serotype O2	2.70 (2.292 to 3.178)	0.78 (0.653 to 0.931)		
Serotype O4	2.14 (1.857 to 2.474)	1.04 (0.889 to 1.222)		
Serotype O6A	1.11 (0.987 to 1.259)	0.84 (0.693 to 1.009)		
Serotype O15	2.66 (2.251 to 3.137)	0.98 (0.736 to 1.314)		
Serotype O16	4.06 (3.448 to 4.782)	0.98 (0.813 to 1.174)		
Serotype O18A	1.84 (1.612 to 2.097)	0.97 (0.831 to 1.135)		
Serotype 25B	1.19 (1.088 to 1.294)	0.93 (0.822 to 1.060)		
Serotype O75	2.09 (1.837 to 2.369)	1.40 (1.137 to 1.717)		

Statistical analyses

No statistical analyses for this end point

Secondary: Cohort 2: Percentage of Participants With a >= 2-Fold and >=4-Fold Increase in Serotype-specific Serum Antibody Titers Measured by MOPA on Day 366

End point title	Cohort 2: Percentage of Participants With a >= 2-Fold and >=4-Fold Increase in Serotype-specific Serum Antibody Titers Measured by MOPA on Day 366[69]

End point description:

Percentage of participants with a >=2-fold and >=4-fold increase from baseline in serotype specific serum antibody titers as measured by MOPA on Day 366 was reported. The >=2-fold and >=4-fold increase from baseline to Day 366 for the serotypes O1A, O2, O4, O6A, O15, O16, O18A, O25B and O75 was calculated as the ratio of titer values of serum antibody on Day 366 and pre-vaccination (on day 1) that is, Day 366/Day 1. The PPI analysis set included all randomized and vaccinated participants, for whom immunogenicity data were available excluding those samples with major protocol deviations expected to impact the immunogenicity outcomes. For serotype O8 functional IgG serum antibodies were not evaluated as the assay was not able to detect vaccine-induced functional antibodies against the O8 serotype. Participants in this analysis set had to have at least a baseline antibody titer measurement. Here, "N" (Number of participants analyzed) signifies participants evaluable for this endpoint.

End point type	Secondary

End point timeframe:

Baseline (Day 1, pre-vaccination) and Day 366

Notes:

[69] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: The data was planned for specified baseline arms only.

End point values	Cohort 2: ExPEC10V High Dose	Cohort 2: Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	255	129		
Units: Percentage of participants				
number (confidence interval 95%)				
Serotype O1A: >= 2 Fold Increase	22.6 (17.60 to 28.29)	12.3 (5.80 to 22.12)		
Serotype O1A: >= 4 Fold Increase	5.6 (3.07 to 9.15)	2.7 (0.33 to 9.55)		
Serotype O2: >= 2 Fold Increase	54.0 (47.60 to 60.24)	11.0 (4.85 to 20.46)		
Serotype O2: >= 4 Fold Increase	32.1 (26.42 to 38.29)	1.4 (0.03 to 7.40)		
Serotype O4: >= 2 Fold Increase	48.0 (41.70 to 54.37)	11.0 (4.85 to 20.46)		
Serotype O4: >= 4 Fold Increase	23.0 (17.97 to 28.71)	2.7 (0.33 to 9.55)		
Serotype O6A: >= 2 Fold Increase	25.1 (19.86 to 30.94)	12.3 (5.80 to 22.12)		
Serotype O6A: >= 4 Fold Increase	9.2 (5.90 to 13.43)	6.8 (2.26 to 15.26)		
Serotype O15: >= 2 Fold Increase	57.9 (51.58 to 64.10)	21.9 (13.08 to 33.14)		
Serotype O15: >= 4 Fold Increase	37.3 (31.31 to 43.59)	6.8 (2.26 to 15.26)		
Serotype O16: >= 2 Fold Increase	67.5 (61.30 to 73.21)	21.9 (13.08 to 33.14)		
Serotype O16: >= 4 Fold Increase	49.6 (43.27 to 55.95)	0.0 (0.00 to 4.93)		
Serotype O18A: >= 2 Fold Increase	38.5 (32.45 to 44.80)	9.9 (4.06 to 19.26)		
Serotype O18A: >= 4 Fold Increase	17.1 (12.63 to 22.29)	2.8 (0.34 to 9.81)		
Serotype O25B: >= 2 Fold Increase	15.9 (11.59 to 20.98)	8.2 (3.08 to 17.04)		
Serotype O25B: >= 4 Fold Increase	5.6 (3.07 to 9.15)	2.7 (0.33 to 9.55)		
Serotype O75: >= 2 Fold Increase	51.6 (45.22 to 57.94)	40.0 (28.47 to 52.41)		
Serotype O75: >= 4 Fold Increase	24.8 (19.57 to 30.63)	5.7 (1.58 to 13.99)		

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information

Timeframe for reporting adverse events:

From Day 1 (post vaccination) up to Day 1826

Adverse event reporting additional description:

FAS included all randomized participants with a vaccine administration documented.

Assessment type	Non-systematic

Dictionary used

Dictionary name	MedDRA
Dictionary version	27.1

Reporting groups

Reporting group title	Cohort 1: Low Dose ExPEC10V

Reporting group description:

Participants aged greater than or equal to (>=) 60 to less than or equal to (<=) 85 years in stable health with or without a history of urinary tract infection (UTI) received a single 0.5 milliliter (mL) intramuscular (IM) injection of ExPEC10V low dose (88 micrograms polysaccharide per milliliter [mcg PS/mL]) on Day 1.

Reporting group title	Cohort 1: Medium Dose ExPEC10V

Reporting group description:

Participants aged >=60 to <= 85 years in stable health with or without a history of UTI received a single 0.5 mL IM injection of ExPEC10V medium dose (120 mcg PS/mL) on Day 1.

Reporting group title	Cohort 1: ExPEC4V

Reporting group description:

Participants aged >=60 to <= 85 years in stable health with or without a history of UTI received a single 0.5 mL IM injection of ExPEC4V 40 mcg PS/mL on Day 1.

Reporting group title	Cohort 1: Prevnar 13

Reporting group description:

Participants aged >=60 to <= 85 years in stable health with or without a history of UTI received a single 0.5 mL IM injection of Prevnar 13 on Day 1.

Reporting group title	Cohort 1: High Dose ExPEC10V

Reporting group description:

Participants aged >=60 to <= 85 years in stable health with or without a history of UTI received a single 0.5 mL IM injection of ExPEC10V high dose (176 mcg PS/mL) on Day 1.

Reporting group title	Cohort 2: ExPEC10V

Reporting group description:

Participants aged >=60 years in stable health with a history of UTI received a single 0.5 mL IM injection of ExPEC10V high dose (176 mcg PS/mL) on Day 1.

Reporting group title	Cohort 2: Placebo

Reporting group description:

Participants aged >=60 years in stable health with a history of UTI received a single 0.5 mL IM injection of placebo (matched to ExPEC10V high dose) on Day 1.

Serious adverse events	Cohort 1: Low Dose ExPEC10V	Cohort 1: Medium Dose ExPEC10V	Cohort 1: ExPEC4V
Total subjects affected by serious adverse events			
subjects affected / exposed	2 / 104 (1.92%)	2 / 102 (1.96%)	0 / 52 (0.00%)
number of deaths (all causes)	0	0	0
number of deaths resulting from adverse events	0	0	0

Injury, poisoning and procedural complications			
Lumbar Vertebral Fracture			
subjects affected / exposed	0 / 104 (0.00%)	0 / 102 (0.00%)	0 / 52 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Nervous system disorders			
Migraine			
subjects affected / exposed	0 / 104 (0.00%)	0 / 102 (0.00%)	0 / 52 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
General disorders and administration site conditions			
Non-Cardiac Chest Pain			
subjects affected / exposed	0 / 104 (0.00%)	0 / 102 (0.00%)	0 / 52 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Gastrointestinal disorders			
Abdominal Hernia			
subjects affected / exposed	0 / 104 (0.00%)	0 / 102 (0.00%)	0 / 52 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Respiratory, thoracic and mediastinal disorders			
Pulmonary Embolism			
subjects affected / exposed	0 / 104 (0.00%)	0 / 102 (0.00%)	0 / 52 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Renal and urinary disorders			
Chronic Kidney Disease			
subjects affected / exposed	0 / 104 (0.00%)	0 / 102 (0.00%)	0 / 52 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Calculus Urinary			
subjects affected / exposed	0 / 104 (0.00%)	0 / 102 (0.00%)	0 / 52 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

Nephrolithiasis			
subjects affected / exposed	0 / 104 (0.00%)	1 / 102 (0.98%)	0 / 52 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Musculoskeletal and connective tissue disorders			
Osteoarthritis			
subjects affected / exposed	1 / 104 (0.96%)	0 / 102 (0.00%)	0 / 52 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Intervertebral Disc Protrusion			
subjects affected / exposed	1 / 104 (0.96%)	1 / 102 (0.98%)	0 / 52 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Infections and infestations			
Enterococcal Sepsis			
subjects affected / exposed	0 / 104 (0.00%)	0 / 102 (0.00%)	0 / 52 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Enterocolitis Infectious			
subjects affected / exposed	0 / 104 (0.00%)	0 / 102 (0.00%)	0 / 52 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Pyelonephritis			
subjects affected / exposed	0 / 104 (0.00%)	0 / 102 (0.00%)	0 / 52 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Pyelonephritis Acute			
subjects affected / exposed	0 / 104 (0.00%)	0 / 102 (0.00%)	0 / 52 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Sepsis			
subjects affected / exposed	0 / 104 (0.00%)	0 / 102 (0.00%)	0 / 52 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

Urinary Tract Infection			
subjects affected / exposed	0 / 104 (0.00%)	0 / 102 (0.00%)	0 / 52 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

Serious adverse events	Cohort 1: Prevnar 13	Cohort 1: High Dose ExPEC10V	Cohort 2: ExPEC10V
Total subjects affected by serious adverse events			
subjects affected / exposed	1 / 54 (1.85%)	0 / 104 (0.00%)	9 / 278 (3.24%)
number of deaths (all causes)	0	0	0
number of deaths resulting from adverse events	0	0	0
Injury, poisoning and procedural complications			
Lumbar Vertebral Fracture			
subjects affected / exposed	0 / 54 (0.00%)	0 / 104 (0.00%)	0 / 278 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Nervous system disorders			
Migraine			
subjects affected / exposed	0 / 54 (0.00%)	0 / 104 (0.00%)	0 / 278 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
General disorders and administration site conditions			
Non-Cardiac Chest Pain			
subjects affected / exposed	0 / 54 (0.00%)	0 / 104 (0.00%)	2 / 278 (0.72%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 2
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Gastrointestinal disorders			
Abdominal Hernia			
subjects affected / exposed	0 / 54 (0.00%)	0 / 104 (0.00%)	1 / 278 (0.36%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Respiratory, thoracic and mediastinal disorders			
Pulmonary Embolism			
subjects affected / exposed	0 / 54 (0.00%)	0 / 104 (0.00%)	0 / 278 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

Renal and urinary disorders			
Chronic Kidney Disease			
subjects affected / exposed	0 / 54 (0.00%)	0 / 104 (0.00%)	0 / 278 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Calculus Urinary			
subjects affected / exposed	0 / 54 (0.00%)	0 / 104 (0.00%)	1 / 278 (0.36%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Nephrolithiasis			
subjects affected / exposed	0 / 54 (0.00%)	0 / 104 (0.00%)	1 / 278 (0.36%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Musculoskeletal and connective tissue disorders			
Osteoarthritis			
subjects affected / exposed	1 / 54 (1.85%)	0 / 104 (0.00%)	1 / 278 (0.36%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Intervertebral Disc Protrusion			
subjects affected / exposed	0 / 54 (0.00%)	0 / 104 (0.00%)	0 / 278 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Infections and infestations			
Enterococcal Sepsis			
subjects affected / exposed	0 / 54 (0.00%)	0 / 104 (0.00%)	0 / 278 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Enterocolitis Infectious			
subjects affected / exposed	0 / 54 (0.00%)	0 / 104 (0.00%)	1 / 278 (0.36%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Pyelonephritis			

subjects affected / exposed	0 / 54 (0.00%)	0 / 104 (0.00%)	1 / 278 (0.36%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Pyelonephritis Acute			
subjects affected / exposed	0 / 54 (0.00%)	0 / 104 (0.00%)	0 / 278 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Sepsis			
subjects affected / exposed	0 / 54 (0.00%)	0 / 104 (0.00%)	1 / 278 (0.36%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Urinary Tract Infection			
subjects affected / exposed	0 / 54 (0.00%)	0 / 104 (0.00%)	0 / 278 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

Serious adverse events	Cohort 2: Placebo		
Total subjects affected by serious adverse events			
subjects affected / exposed	6 / 138 (4.35%)		
number of deaths (all causes)	0		
number of deaths resulting from adverse events	0		
Injury, poisoning and procedural complications			
Lumbar Vertebral Fracture			
subjects affected / exposed	1 / 138 (0.72%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Nervous system disorders			
Migraine			
subjects affected / exposed	1 / 138 (0.72%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
General disorders and administration site conditions			
Non-Cardiac Chest Pain			

subjects affected / exposed	0 / 138 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Gastrointestinal disorders			
Abdominal Hernia			
subjects affected / exposed	0 / 138 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Respiratory, thoracic and mediastinal disorders			
Pulmonary Embolism			
subjects affected / exposed	1 / 138 (0.72%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Renal and urinary disorders			
Chronic Kidney Disease			
subjects affected / exposed	1 / 138 (0.72%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Calculus Urinary			
subjects affected / exposed	0 / 138 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Nephrolithiasis			
subjects affected / exposed	0 / 138 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Musculoskeletal and connective tissue disorders			
Osteoarthritis			
subjects affected / exposed	0 / 138 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Intervertebral Disc Protrusion			

subjects affected / exposed	1 / 138 (0.72%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Infections and infestations			
Enterococcal Sepsis			
subjects affected / exposed	1 / 138 (0.72%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Enterocolitis Infectious			
subjects affected / exposed	0 / 138 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Pyelonephritis			
subjects affected / exposed	0 / 138 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Pyelonephritis Acute			
subjects affected / exposed	1 / 138 (0.72%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Sepsis			
subjects affected / exposed	0 / 138 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Urinary Tract Infection			
subjects affected / exposed	1 / 138 (0.72%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		

Frequency threshold for reporting non-serious adverse events: 3 %

Non-serious adverse events	Cohort 1: Low Dose ExPEC10V	Cohort 1: Medium Dose ExPEC10V	Cohort 1: ExPEC4V
Total subjects affected by non-serious adverse events			
subjects affected / exposed	60 / 104 (57.69%)	61 / 102 (59.80%)	24 / 52 (46.15%)
Investigations			
Blood Pressure Increased			
subjects affected / exposed	0 / 104 (0.00%)	0 / 102 (0.00%)	0 / 52 (0.00%)
occurrences (all)	0	0	0
Nervous system disorders			
Headache (Solicited)			
subjects affected / exposed	19 / 104 (18.27%)	25 / 102 (24.51%)	11 / 52 (21.15%)
occurrences (all)	26	41	15
General disorders and administration site conditions			
Erythema (Solicited)			
subjects affected / exposed	11 / 104 (10.58%)	19 / 102 (18.63%)	1 / 52 (1.92%)
occurrences (all)	11	19	1
Fatigue (Solicited)			
subjects affected / exposed	21 / 104 (20.19%)	29 / 102 (28.43%)	8 / 52 (15.38%)
occurrences (all)	30	52	8
Injection Site Pruritus			
subjects affected / exposed	1 / 104 (0.96%)	5 / 102 (4.90%)	2 / 52 (3.85%)
occurrences (all)	1	5	2
Fever (Solicited)			
subjects affected / exposed	2 / 104 (1.92%)	0 / 102 (0.00%)	1 / 52 (1.92%)
occurrences (all)	2	0	1
Pain/Tenderness (Solicited)			
subjects affected / exposed	46 / 104 (44.23%)	52 / 102 (50.98%)	15 / 52 (28.85%)
occurrences (all)	61	74	20
Swelling (Solicited)			
subjects affected / exposed	9 / 104 (8.65%)	15 / 102 (14.71%)	2 / 52 (3.85%)
occurrences (all)	10	15	2
Ear and labyrinth disorders			
Tinnitus			
subjects affected / exposed	0 / 104 (0.00%)	0 / 102 (0.00%)	0 / 52 (0.00%)
occurrences (all)	0	0	0
Gastrointestinal disorders			

Diarrhoea			
subjects affected / exposed	1 / 104 (0.96%)	0 / 102 (0.00%)	1 / 52 (1.92%)
occurrences (all)	1	0	1
Nausea (Solicited)			
subjects affected / exposed	5 / 104 (4.81%)	9 / 102 (8.82%)	1 / 52 (1.92%)
occurrences (all)	5	11	1
Musculoskeletal and connective tissue disorders			
Myalgia			
subjects affected / exposed	1 / 104 (0.96%)	3 / 102 (2.94%)	0 / 52 (0.00%)
occurrences (all)	1	3	0
Myalgia (Solicited)			
subjects affected / exposed	26 / 104 (25.00%)	36 / 102 (35.29%)	10 / 52 (19.23%)
occurrences (all)	34	46	15
Infections and infestations			
Upper Respiratory Tract Infection			
subjects affected / exposed	3 / 104 (2.88%)	4 / 102 (3.92%)	3 / 52 (5.77%)
occurrences (all)	3	4	3
Urinary Tract Infection			
subjects affected / exposed	0 / 104 (0.00%)	0 / 102 (0.00%)	0 / 52 (0.00%)
occurrences (all)	0	0	0

Non-serious adverse events	Cohort 1: Prevnar 13	Cohort 1: High Dose ExPEC10V	Cohort 2: ExPEC10V
Total subjects affected by non-serious adverse events			
subjects affected / exposed	41 / 54 (75.93%)	71 / 104 (68.27%)	180 / 278 (64.75%)
Investigations			
Blood Pressure Increased			
subjects affected / exposed	2 / 54 (3.70%)	0 / 104 (0.00%)	1 / 278 (0.36%)
occurrences (all)	2	0	1
Nervous system disorders			
Headache (Solicited)			
subjects affected / exposed	10 / 54 (18.52%)	25 / 104 (24.04%)	74 / 278 (26.62%)
occurrences (all)	16	32	74
General disorders and administration site conditions			
Erythema (Solicited)			
subjects affected / exposed	5 / 54 (9.26%)	19 / 104 (18.27%)	60 / 278 (21.58%)
occurrences (all)	5	19	60
Fatigue (Solicited)			

subjects affected / exposed	13 / 54 (24.07%)	24 / 104 (23.08%)	98 / 278 (35.25%)
occurrences (all)	19	34	98
Injection Site Pruritus			
subjects affected / exposed	1 / 54 (1.85%)	3 / 104 (2.88%)	7 / 278 (2.52%)
occurrences (all)	1	3	7
Fever (Solicited)			
subjects affected / exposed	0 / 54 (0.00%)	3 / 104 (2.88%)	15 / 278 (5.40%)
occurrences (all)	0	4	15
Pain/Tenderness (Solicited)			
subjects affected / exposed	39 / 54 (72.22%)	60 / 104 (57.69%)	132 / 278 (47.48%)
occurrences (all)	41	83	132
Swelling (Solicited)			
subjects affected / exposed	2 / 54 (3.70%)	14 / 104 (13.46%)	44 / 278 (15.83%)
occurrences (all)	2	14	44
Ear and labyrinth disorders			
Tinnitus			
subjects affected / exposed	2 / 54 (3.70%)	0 / 104 (0.00%)	0 / 278 (0.00%)
occurrences (all)	2	0	0
Gastrointestinal disorders			
Diarrhoea			
subjects affected / exposed	0 / 54 (0.00%)	4 / 104 (3.85%)	3 / 278 (1.08%)
occurrences (all)	0	4	3
Nausea (Solicited)			
subjects affected / exposed	2 / 54 (3.70%)	11 / 104 (10.58%)	40 / 278 (14.39%)
occurrences (all)	2	12	40
Musculoskeletal and connective tissue disorders			
Myalgia			
subjects affected / exposed	0 / 54 (0.00%)	2 / 104 (1.92%)	7 / 278 (2.52%)
occurrences (all)	0	2	8
Myalgia (Solicited)			
subjects affected / exposed	21 / 54 (38.89%)	37 / 104 (35.58%)	84 / 278 (30.22%)
occurrences (all)	26	49	84
Infections and infestations			
Upper Respiratory Tract Infection			
subjects affected / exposed	3 / 54 (5.56%)	1 / 104 (0.96%)	1 / 278 (0.36%)
occurrences (all)	3	1	1

Urinary Tract Infection			
subjects affected / exposed	0 / 54 (0.00%)	1 / 104 (0.96%)	7 / 278 (2.52%)
occurrences (all)	0	1	8

Non-serious adverse events	Cohort 2: Placebo		
Total subjects affected by non-serious adverse events			
subjects affected / exposed	64 / 138 (46.38%)		
Investigations			
Blood Pressure Increased			
subjects affected / exposed	0 / 138 (0.00%)		
occurrences (all)	0		
Nervous system disorders			
Headache (Solicited)			
subjects affected / exposed	34 / 138 (24.64%)		
occurrences (all)	34		
General disorders and administration site conditions			
Erythema (Solicited)			
subjects affected / exposed	1 / 138 (0.72%)		
occurrences (all)	1		
Fatigue (Solicited)			
subjects affected / exposed	31 / 138 (22.46%)		
occurrences (all)	31		
Injection Site Pruritus			
subjects affected / exposed	0 / 138 (0.00%)		
occurrences (all)	0		
Fever (Solicited)			
subjects affected / exposed	3 / 138 (2.17%)		
occurrences (all)	3		
Pain/Tenderness (Solicited)			
subjects affected / exposed	20 / 138 (14.49%)		
occurrences (all)	20		
Swelling (Solicited)			
subjects affected / exposed	2 / 138 (1.45%)		
occurrences (all)	2		
Ear and labyrinth disorders			
Tinnitus			

subjects affected / exposed occurrences (all)	0 / 138 (0.00%) 0		
Gastrointestinal disorders Diarrhoea subjects affected / exposed occurrences (all) Nausea (Solicited) subjects affected / exposed occurrences (all)	 3 / 138 (2.17%) 3 8 / 138 (5.80%) 8		
Musculoskeletal and connective tissue disorders Myalgia subjects affected / exposed occurrences (all) Myalgia (Solicited) subjects affected / exposed occurrences (all)	 6 / 138 (4.35%) 6 23 / 138 (16.67%) 23		
Infections and infestations Upper Respiratory Tract Infection subjects affected / exposed occurrences (all) Urinary Tract Infection subjects affected / exposed occurrences (all)	 0 / 138 (0.00%) 0 10 / 138 (7.25%) 10		

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
21 January 2019	The reason for this amendment was to update the Phase 1 study design based on Food and Drug Administration (FDA) recommendations and clarify that the additional blood draw from additional 30 participants was taken from one site in Phase 2a.
05 April 2019	The reason for this amendment was to correct the fever grading (on the impact of fever grading in the electronic case report form [eCRF]), correct recording of the fever grades).
09 October 2019	The reason for this amendment was to expand the dataset supporting the short- and long-term safety and immunogenicity of the selected dose of ExPEC10V in an additional cohort (Cohort 2). Cohort 2 include 600 male and female participants >=60 years of age in stable health with a history of urinary tract infection (UTI) in the past 5 years and were included in the study to support the plan for late stage development of ExPEC10V.
17 March 2020	The reason for this amendment was to revise the inclusion criterion for the body mass index range, and to clarify details on data collection for solicited adverse events (AEs) that were not resolved within 14 days after vaccination, severity grading scales, and the time window for participant collection of stool samples.
24 November 2020	The reason for this amendment was to update the number of participants to be included due to early enrollment termination and to clarify that the use of oral E. coli vaccines was allowed and must be recorded as concomitant medication.
18 March 2021	The reason for this amendment was to restrict MOPA testing in Cohort 2 to timepoints Day 1, Day 30, Day 181, Year 1, and Year 3 (Day 15 and Year 2 were evaluated). It was decided to leave out Day 15 MOPA testing as previous experience with ExPEC4V (63871860BAC2001) showed that Day 15 and Day 30 MOPA results are very similar. MOPA testing at Year 2 was considered not needed as the Applicant believes that, based on experience with ExPEC4V, Year 1 and Year 3 testing were sufficient to model the long-term immunogenicity profile.
19 October 2021	The reason for this amendment was to shorten the long-term follow-up period in Cohort 2 from 3 years to 1 year, as a 3-year long-term follow-up period will be part of another Phase 3 ExPEC study that includes the same population, taht is, participants with a history of UTI. The long-term follow-up period in Cohort 1 will be extended from 3 years to 5 years, to obtain more long-term data on the safety and immunogenicity of the selected dose of the ExPEC10V vaccine in the general population. In addition, the assessment of vaccine-induced functional antibodies against the ExPEC10V O8 serotype was removed from the MOPA analysis in Cohort 1 and 2, except for baseline and Day 15 in Cohort 1, as the assay was not able to detect vaccine-induced functional antibodies against the O8 serotype. Clarifications about the Cohort 1 and 2 LTFU procedures were added, and minor changes were implemented to align text in this protocol with recent template updates.

Notes:

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

None reported