Clinical trial results:
A Phase 2, Multicenter, Randomized, Placebo-Controlled, Double-Blind Study to Evaluate Risankizumab in Adult and Adolescent Subjects With Moderate to Severe Atopic Dermatitis

Summary

EudraCT number	2021-002203-34
Trial protocol	Outside EU/EEA
Global end of trial date	26 April 2021

Results information

Result version number	v1 (current)
This version publication date	16 October 2021
First version publication date	16 October 2021

Trial information

Trial identification

Sponsor protocol code	M16-813

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT03706040
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	Abbvie
Sponsor organisation address	1 North Waukegan Road, North Chicago, IL, United States, 60064
Public contact	Global Medical Services, AbbVie, 001 800-633-9110, abbvieclinicaltrials@abbvie.com
Scientific contact	Global Medical Services, AbbVie, 001 800-633-9110, abbvieclinicaltrials@abbvie.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?	Yes

Notes:

Results analysis stage

Analysis stage	Final
Date of interim/final analysis	26 April 2021
Is this the analysis of the primary completion data?	No

Global end of trial reached?	Yes
Global end of trial date	26 April 2021
Was the trial ended prematurely?	Yes

Notes:

General information about the trial

Main objective of the trial:

The purpose of this study is to assess the safety and efficacy of risankizumab for the treatment of moderate to severe atopic dermatitis (AD) in adults and adolescents.

Protection of trial subjects:

Subject and/or legal guardian read and understood the information provided about the study and gave written permission.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	27 December 2018
Long term follow-up planned	No
Independent data monitoring committee (IDMC) involvement?	Yes

Notes:

Population of trial subjects

Subjects enrolled per country

Country: Number of subjects enrolled	Australia: 22
Country: Number of subjects enrolled	Canada: 33
Country: Number of subjects enrolled	Japan: 32
Country: Number of subjects enrolled	Puerto Rico: 7
Country: Number of subjects enrolled	United States: 78
Worldwide total number of subjects	172
EEA total number of subjects	0

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)	2
Adults (18-64 years)	149
From 65 to 84 years	21

85 years and over	0

Subject disposition

Recruitment

Recruitment details:

Adults and adolescents with moderate to severe atopic dermatitis (AD) with onset of symptoms at least 2 years before the Baseline visit were enrolled at 50 sites in the United States, Canada, Japan, and Australia.
The study included a 16-week double-blind treatment period (Period A) followed by a 36-week double-blind treatment period (Period B).

Pre-assignment

Screening details:

Subjects were randomized in a 2:2:1 ratio to receive risankizumab 150 mg, 300 mg, or placebo with stratification by disease severity (Validated Investigator Global Assessment Scale for AD [vIGA-AD] moderate vs severe) and geographic region. At Week 16 subjects in the placebo group were re-randomized in a 1:1 ratio to risankizumab 150 mg or 300 mg.

Period 1

Period 1 title	Period A (Week 0 - 16)
Is this the baseline period?	Yes
Allocation method	Randomised - controlled
Blinding used	Double blind
Roles blinded	Subject, Investigator

Arms

Are arms mutually exclusive?	Yes
Arm title	Placebo

Arm description:

Participants randomized to receive placebo at Weeks 0 and 4 in Period A.

Arm type	Placebo
Investigational medicinal product name	Placebo
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Solution for injection/infusion in pre-filled syringe
Routes of administration	Subcutaneous use

Dosage and administration details:

Administered by subcutaneous injection (SC) at Baseline (Week 0) and Week 4.

Arm title	Risankizumab 150 mg

Arm description:

Participants randomized to receive 150 mg risankizumab SC at Weeks 0 and 4 in Period A.

Arm type	Experimental
Investigational medicinal product name	Risankizumab
Investigational medicinal product code	ABBV-066
Other name	BI 655066
Pharmaceutical forms	Solution for injection/infusion in pre-filled syringe
Routes of administration	Subcutaneous use

Dosage and administration details:

Administered by subcutaneous injection (SC) at Baseline (Week 0) and Week 4.

Arm title	Risankizumab 300 mg

Arm description:

Participants randomized to receive 300 mg risankizumab SC at Weeks 0 and 4 in Period A.

Arm type	Experimental

Investigational medicinal product name	Risankizumab
Investigational medicinal product code	ABBV-066
Other name	BI 655066
Pharmaceutical forms	Solution for injection/infusion in pre-filled syringe
Routes of administration	Subcutaneous use

Dosage and administration details:

Administered by subcutaneous injection (SC) at Baseline (Week 0) and Week 4.

Number of subjects in period 1	Placebo	Risankizumab 150 mg	Risankizumab 300 mg
Started	34	69	69
Completed	25	61	58
Not completed	9	8	11
Consent withdrawn by subject	3	5	4
Adverse event, non-fatal	3	2	1
Other	2	-	2
Lost to follow-up	1	1	4

Period 2

Period 2 title	Period B (Week 16 - 52)
Is this the baseline period?	No
Allocation method	Randomised - controlled
Blinding used	Double blind
Roles blinded	Investigator, Subject

Arms

Are arms mutually exclusive?	Yes
Arm title	Placebo / Risankizumab 150 mg

Arm description:

Participants initially randomized to placebo were re-randomized at Week 16 to receive 150 mg risankizumab SC at Week 16, Week 28, and Week 40 in Period B.

Arm type	Experimental
Investigational medicinal product name	Risankizumab
Investigational medicinal product code	ABBV-066
Other name	BI 655066
Pharmaceutical forms	Solution for injection/infusion in pre-filled syringe
Routes of administration	Subcutaneous use

Dosage and administration details:

Administered by subcutaneous injection (SC) at Week 16, Week 28, and Week 40

Arm title	Placebo / Risankizumab 300 mg

Arm description:

Participants initially randomized to placebo were re-randomized at Week 16 to receive 300 mg risankizumab SC at Week 16, Week 28, and Week 40 in Period B.

Arm type	Experimental

Investigational medicinal product name	Risankizumab
Investigational medicinal product code	ABBV-066
Other name	BI 655066
Pharmaceutical forms	Solution for injection/infusion in pre-filled syringe
Routes of administration	Subcutaneous use

Dosage and administration details:

Administered by subcutaneous injection (SC) at Week 16, Week 28, and Week 40

Arm title	Risankizumab 150 mg / Risankizumab 150 mg

Arm description:

Participants initially randomized to receive 150 mg risankizumab SC in Period A continued to receive 150 mg risankizumab SC at Week 16, Week 28, and Week 40 in Period B.

Arm type	Experimental
Investigational medicinal product name	Risankizumab
Investigational medicinal product code	ABBV-066
Other name	BI 655066
Pharmaceutical forms	Solution for injection/infusion in pre-filled syringe
Routes of administration	Subcutaneous use

Dosage and administration details:

Administered by subcutaneous injection (SC) at Week 16, Week 28, and Week 40

Arm title	Risankizumab 300 mg / Risankizumab 300 mg

Arm description:

Participants initially randomized to receive 300 mg risankizumab SC in Period A continued to receive 300 mg risankizumab SC at Week 16, Week 28, and Week 40 in Period B.

Arm type	Experimental
Investigational medicinal product name	Risankizumab
Investigational medicinal product code	ABBV-066
Other name	BI 655066
Pharmaceutical forms	Solution for injection/infusion in pre-filled syringe
Routes of administration	Subcutaneous use

Dosage and administration details:

Administered by subcutaneous injection (SC) at Week 16, Week 28, and Week 40

Number of subjects in period 2	Placebo / Risankizumab 150 mg	Placebo / Risankizumab 300 mg	Risankizumab 150 mg / Risankizumab 150 mg
Started	13	12	61
Received Study Drug	13	11	61
Completed	5	3	33
Not completed	8	9	28
Consent withdrawn by subject	3	2	1
Adverse event, non-fatal	1	2	3
Other	4	5	23
Lost to follow-up	-	-	1

Number of subjects in period 2	Risankizumab 300 mg / Risankizumab 300 mg
Started	58

Received Study Drug	57
Completed	30
Not completed	28
Consent withdrawn by subject	10
Adverse event, non-fatal	-
Other	17
Lost to follow-up	1

Baseline characteristics

Reporting groups	
Reporting group title	Placebo
Reporting group description:	
Participants randomized to receive placebo at Weeks 0 and 4 in Period A.	
Reporting group title	Risankizumab 150 mg
Reporting group description:	
Participants randomized to receive 150 mg risankizumab SC at Weeks 0 and 4 in Period A.	
Reporting group title	Risankizumab 300 mg
Reporting group description:	
Participants randomized to receive 300 mg risankizumab SC at Weeks 0 and 4 in Period A.	

Reporting group values	Placebo	Risankizumab 150 mg	Risankizumab 300 mg
Number of subjects	34	69	69
Age categorical Units: Subjects			
< 18 years	0	1	1
18 - 39 years	15	34	27
40 - 64 years	10	27	36
≥ 65 years	9	7	5
Age continuous Units: years			
arithmetic mean	45.5	41.7	43.8
standard deviation	± 19.66	± 15.12	± 16.63
Gender categorical Units: Subjects			
Female	13	31	32
Male	21	38	37
Ethnicity Units: Subjects			
Hispanic or Latino	0	8	6
Not Hispanic or Latino	34	61	63
Race Units: Subjects			
White	17	39	36
Black or African American	7	8	11
Asian	8	21	20
Native Hawaiian or Other Pacific Islander	1	0	1
American Indian or Alaska Native	0	1	1
Multiple	1	0	0
Geographic Region Units: Subjects			
Japan	6	13	13
Rest of World	28	56	56
Disease Severity			
Validated Investigator Global Assessment scale for Atopic Dermatitis (vIGA-AD) was used to assess the severity of AD based on lesion appearance on the following scale:			

0-Clear: No signs of AD; 1-Almost clear: Barely perceptible erythema, induration/papulation and/or lichenification; 2-Mild: Slight but definite erythema, induration/papulation and/or minimal lichenification. No oozing or crusting; 3-Moderate: Clearly perceptible erythema, induration/papulation and/or lichenification, possible oozing or crusting; 4-Severe: Marked erythema, induration/papulation and/or lichenification			
Units: Subjects			
3 (Moderate)	20	40	39
4 (Severe)	14	29	30
Eczema Area and Severity Index (EASI) Score			
EASI measures the extent and severity of atopic eczema based on assessments of the head/neck, trunk, upper limbs and lower limbs. For each region the percentage of skin affected and the severity (scored as none [0], mild [1], moderate [2], or severe [3]) for redness, thickness, scratching, and lichenification are assessed. The score for each region is calculated by multiplying the severity score by the area score, and adjusting for the proportion of the body region to the whole body. The EASI score is the sum of the scores for each region and ranges from 0 to 72 (worse disease).			
Units: score on a scale			
arithmetic mean	30.85	31.06	28.70
standard deviation	± 12.345	± 13.995	± 11.247

Reporting group values	Total		
Number of subjects	172		
Age categorical Units: Subjects			
< 18 years	2		
18 - 39 years	76		
40 - 64 years	73		
≥ 65 years	21		
Age continuous Units: years arithmetic mean standard deviation	- -		
Gender categorical Units: Subjects			
Female	76		
Male	96		
Ethnicity Units: Subjects			
Hispanic or Latino	14		
Not Hispanic or Latino	158		
Race Units: Subjects			
White	92		
Black or African American	26		
Asian	49		
Native Hawaiian or Other Pacific Islander	2		
American Indian or Alaska Native	2		
Multiple	1		
Geographic Region Units: Subjects			
Japan	32		
Rest of World	140		

Disease Severity			
Validated Investigator Global Assessment scale for Atopic Dermatitis (vIGA-AD) was used to assess the severity of AD based on lesion appearance on the following scale: 0-Clear: No signs of AD; 1-Almost clear: Barely perceptible erythema, induration/papulation and/or lichenification; 2-Mild: Slight but definite erythema, induration/papulation and/or minimal lichenification. No oozing or crusting; 3-Moderate: Clearly perceptible erythema, induration/papulation and/or lichenification, possible oozing or crusting; 4-Severe: Marked erythema, induration/papulation and/or lichenification			
Units: Subjects			
3 (Moderate)	99		
4 (Severe)	73		
Eczema Area and Severity Index (EASI) Score			
EASI measures the extent and severity of atopic eczema based on assessments of the head/neck, trunk, upper limbs and lower limbs. For each region the percentage of skin affected and the severity (scored as none [0], mild [1], moderate [2], or severe [3]) for redness, thickness, scratching, and lichenification are assessed. The score for each region is calculated by multiplying the severity score by the area score, and adjusting for the proportion of the body region to the whole body. The EASI score is the sum of the scores for each region and ranges from 0 to 72 (worse disease).			
Units: score on a scale			
arithmetic mean			
standard deviation	-		

End points

End points reporting groups

Reporting group title	Placebo
Reporting group description:	
Participants randomized to receive placebo at Weeks 0 and 4 in Period A.	
Reporting group title	Risankizumab 150 mg
Reporting group description:	
Participants randomized to receive 150 mg risankizumab SC at Weeks 0 and 4 in Period A.	
Reporting group title	Risankizumab 300 mg
Reporting group description:	
Participants randomized to receive 300 mg risankizumab SC at Weeks 0 and 4 in Period A.	
Reporting group title	Placebo / Risankizumab 150 mg
Reporting group description:	
Participants initially randomized to placebo were re-randomized at Week 16 to receive 150 mg risankizumab SC at Week 16, Week 28, and Week 40 in Period B.	
Reporting group title	Placebo / Risankizumab 300 mg
Reporting group description:	
Participants initially randomized to placebo were re-randomized at Week 16 to receive 300 mg risankizumab SC at Week 16, Week 28, and Week 40 in Period B.	
Reporting group title	Risankizumab 150 mg / Risankizumab 150 mg
Reporting group description:	
Participants initially randomized to receive 150 mg risankizumab SC in Period A continued to receive 150 mg risankizumab SC at Week 16, Week 28, and Week 40 in Period B.	
Reporting group title	Risankizumab 300 mg / Risankizumab 300 mg
Reporting group description:	
Participants initially randomized to receive 300 mg risankizumab SC in Period A continued to receive 300 mg risankizumab SC at Week 16, Week 28, and Week 40 in Period B.	

Primary: Percentage of Participants Achieving At Least a 75% Reduction From Baseline in Eczema Area and Severity Index (EASI 75 Response) at Week 16

End point title	Percentage of Participants Achieving At Least a 75% Reduction From Baseline in Eczema Area and Severity Index (EASI 75 Response) at Week 16
End point description:	
EASI is a tool used to measure the extent (area) and severity of atopic eczema based on assessments of the head/neck, trunk, upper limbs and lower limbs. For each region the area score is recorded as the percentage of skin affected and the severity score is calculated as the sum of the intensity scores (scored as none [0], mild [1], moderate [2], or severe [3]) for redness (erythema, inflammation), thickness (induration, papulation, swelling - acute eczema), scratching (excoriation), and lichenification (lined skin, prurigo nodules - chronic eczema). The total EASI score for each region is calculated by multiplying the severity score by the area score, adjusting for the proportion of the body region to the whole body. The final EASI score is the sum of the 4 region scores and ranges from 0 to 72 where higher scores represent worse disease. Non-responder imputation incorporating multiple imputation (MI) to handle missing data due to COVID-19 (NRI-C) was used in the analysis.	
End point type	Primary
End point timeframe:	
Baseline, Week 16	

End point values	Placebo	Risankizumab 150 mg	Risankizumab 300 mg	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	34[1]	69	69	
Units: percentage of participants				
number (confidence interval 95%)	11.8 (0.9 to 22.6)	24.6 (14.5 to 34.8)	21.7 (12.0 to 31.5)	

Notes:

[1] - Intent-to-treat (ITT) population (all randomized participants)

Statistical analyses

Statistical analysis title	Primary Analysis of EASI-75 Response
Comparison groups	Placebo v Risankizumab 150 mg
Number of subjects included in analysis	103
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.084 [2]
Method	Cochran-Mantel-Haenszel
Parameter estimate	Adjusted Difference
Point estimate	13
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.7
upper limit	27.7

Notes:

[2] - Cochran-Mantel-Haenszel test stratified by Baseline disease severity (moderate [vIGA-AD 3] versus severe [vIGA-AD 4]).

Statistical analysis title	Primary Analysis of EASI-75 Response
Comparison groups	Placebo v Risankizumab 300 mg
Number of subjects included in analysis	103
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.179 [3]
Method	Cochran-Mantel-Haenszel
Parameter estimate	Adjusted Difference
Point estimate	10
Confidence interval	
level	95 %
sides	2-sided
lower limit	-4.6
upper limit	24.6

Notes:

[3] - Cochran-Mantel-Haenszel test stratified by Baseline disease severity (moderate [vIGA-AD 3] versus severe [vIGA-AD 4]).

Secondary: Percentage of Participants Who Achieved a vIGA-AD Score of "0" or "1" With a Reduction From Baseline of ≥ 2 Points at Week 16

End point title	Percentage of Participants Who Achieved a vIGA-AD Score of "0" or "1" With a Reduction From Baseline of ≥ 2 Points at Week 16

End point description:

Validated Investigator Global Assessment scale for Atopic Dermatitis (vIGA-AD) was used to assess the severity of AD based on lesion appearance on the following scale:
0-Clear: No signs of AD;
1-Almost clear: Barely perceptible erythema, induration/papulation and/or lichenification;
2-Mild: Slight but definite erythema, induration/papulation and/or minimal lichenification. No oozing or crusting;
3-Moderate: Clearly perceptible erythema, induration/papulation and/or lichenification, possible oozing or crusting;
4-Severe: Marked erythema, induration/papulation and/or lichenification; possible oozing or crusting.

Non-responder imputation incorporating multiple imputation (MI) to handle missing data due to COVID-19 (NRI-C) was used in the analysis.

End point type	Secondary

End point timeframe:

Week 16

End point values	Placebo	Risankizumab 150 mg	Risankizumab 300 mg	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	34[4]	69	69	
Units: percentage of participants				
number (confidence interval 95%)	5.9 (0.0 to 13.8)	14.5 (6.2 to 22.8)	5.8 (0.3 to 11.3)	

Notes:

[4] - Intent-to-treat population

Statistical analyses

Statistical analysis title	Analysis of vIGA Response
Comparison groups	Placebo v Risankizumab 150 mg
Number of subjects included in analysis	103
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.129 [5]
Method	Cochran-Mantel-Haenszel
Parameter estimate	Adjusted Difference
Point estimate	8.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.5
upper limit	20

Notes:

[5] - Cochran-Mantel-Haenszel test stratified by Baseline disease severity (moderate [vIGA-AD 3] versus severe [vIGA-AD 4]).

Statistical analysis title	Analysis of vIGA Response
Comparison groups	Placebo v Risankizumab 300 mg

Number of subjects included in analysis	103
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.994 [6]
Method	Cochran-Mantel-Haenszel
Parameter estimate	Adjusted Difference
Point estimate	-0.01
Confidence interval	
level	95 %
sides	2-sided
lower limit	-9.4
upper limit	9.4

Notes:

[6] - Cochran-Mantel-Haenszel test stratified by Baseline disease severity (moderate [vIGA-AD 3] versus severe [vIGA-AD 4]).

Secondary: Percentage of Participants Who Achieved a Reduction of ≥ 4 Points in Worst Pruritus Numerical Rating Scale (NRS) Score From Baseline to Week 16

End point title	Percentage of Participants Who Achieved a Reduction of ≥ 4 Points in Worst Pruritus Numerical Rating Scale (NRS) Score From Baseline to Week 16

End point description:

Participants were asked to rate itch (pruritis) intensity at its worst during the past 24 hours on an 11-point scale from 0 (no itch) to 10 (worst imaginable itch).
The analysis was conducted in the intent-to-treat population with a Baseline Pruritus NRS of ≥ 4; Non-responder imputation incorporating multiple imputation (MI) to handle missing data due to COVID-19 (NRI-C) was used in the analysis . "99999" indicates values that could not be calculated.

End point type	Secondary

End point timeframe:

Baseline, Week 16

End point values	Placebo	Risankizumab 150 mg	Risankizumab 300 mg	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	33[7]	66	66	
Units: percentage of participants				
number (confidence interval 95%)	0 (-99999 to 99999)	13.6 (5.4 to 21.9)	15.2 (6.5 to 23.8)	

Notes:

[7] - Intent-to-treat population with a Baseline Pruritus NRS of ≥ 4

Statistical analyses

Statistical analysis title	Analysis of Pruritus NRS Response
Comparison groups	Placebo v Risankizumab 150 mg

Number of subjects included in analysis	99
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.001 [8]
Method	Cochran-Mantel-Haenszel
Parameter estimate	Adjusted Difference
Point estimate	13.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	5.4
upper limit	22.1

Notes:

[8] - Cochran-Mantel-Haenszel test stratified by Baseline disease severity (moderate [vIGA-AD 3] versus severe [vIGA-AD 4]).

Statistical analysis title	Analysis of Pruritus NRS Response
Comparison groups	Placebo v Risankizumab 300 mg
Number of subjects included in analysis	99
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001 [9]
Method	Cochran-Mantel-Haenszel
Parameter estimate	Adjusted Difference
Point estimate	15.3
Confidence interval	
level	95 %
sides	2-sided
lower limit	6.6
upper limit	24

Notes:

[9] - Cochran-Mantel-Haenszel test stratified by Baseline disease severity (moderate [vIGA-AD 3] versus severe [vIGA-AD 4]).

Secondary: Percent Change From Baseline in EASI Score at Week 16

End point title	Percent Change From Baseline in EASI Score at Week 16

End point description:

EASI is used to measure the extent (area) and severity of atopic eczema based on assessments of the head/neck, trunk, upper limbs and lower limbs. For each region the area score is recorded as the percentage of skin affected by eczema and the severity score is calculated as the sum of the intensity scores (scored as none [0], mild [1], moderate [2], or severe [3]) for redness (erythema, inflammation), thickness (induration, papulation, swelling - acute eczema), scratching (excoriation), and lichenification (lined skin, prurigo nodules - chronic eczema).
The total EASI score for each region is calculated by multiplying the severity score by the area score, adjusted for the proportion of the body region to the whole body. The final EASI score is the sum of the 4 region scores and ranges from 0 to 72 where higher scores represent worse disease; a negative change from Baseline indicates improvement.
Missing data were handled using a mixed-effect model with repeated measurements (MMRM).

End point type	Secondary

End point timeframe:

Baseline and Week 16

End point values	Placebo	Risankizumab 150 mg	Risankizumab 300 mg	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	17[10]	51[11]	43[12]	
Units: percent change				
least squares mean (standard error)	-28.54 (± 9.378)	-38.86 (± 5.989)	-45.39 (± 6.351)	

Notes:

[10] - ITT population; non-missing Baseline and Week 16 data contributed to the repeated measures model.
[11] - ITT population; non-missing Baseline and Week 16 data contributed to the repeated measures model.
[12] - ITT population; non-missing Baseline and Week 16 data contributed to the repeated measures model.

Statistical analyses

Statistical analysis title	Analysis of Change from Baseline in EASI
Comparison groups	Placebo v Risankizumab 150 mg
Number of subjects included in analysis	68
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.353 [13]
Method	Mixed Effect Model Repeated Measurement
Parameter estimate	Least Squares (LS) Mean Difference
Point estimate	-10.32
Confidence interval	
level	95 %
sides	2-sided
lower limit	-32.25
upper limit	11.61
Variability estimate	Standard error of the mean
Dispersion value	11.073

Notes:

[13] - Mixed effect model repeated measurement (MMRM) analysis with treatment, visit, treatment-by-visit interaction, vIGA-AD categories (moderate vs severe) and Baseline value in the model.

Statistical analysis title	Analysis of Change from Baseline in EASI
Comparison groups	Placebo v Risankizumab 300 mg
Number of subjects included in analysis	60
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.139 [14]
Method	Mixed Effect Model Repeated Measurement
Parameter estimate	LS Mean Difference
Point estimate	-16.86
Confidence interval	
level	95 %
sides	2-sided
lower limit	-39.24
upper limit	5.53
Variability estimate	Standard error of the mean
Dispersion value	11.305

Notes:

[14] - MMRM analysis with treatment, visit, treatment-by-visit interaction, vIGA-AD categories (moderate vs severe) and Baseline value in the model.

Secondary: Percent Change From Baseline in EASI Score at Week 28 and Week 52

End point title	Percent Change From Baseline in EASI Score at Week 28 and Week 52

End point description:

EASI is used to measure the extent (area) and severity of atopic eczema based on assessments of the head/neck, trunk, upper limbs and lower limbs. For each region the area score is recorded as the percentage of skin affected and the severity score is calculated as the sum of the intensity scores (scored as none [0], mild [1], moderate [2], or severe [3]) for redness (erythema, inflammation), thickness (induration, papulation, swelling), scratching, and lichenification (lined skin, prurigo nodules). The total EASI score for each region is calculated by multiplying the severity score by the area score, with adjustment for the proportion of the body region to the whole body. The final EASI score is the sum of the 4 region scores and ranges from 0 to 72 where higher scores represent worse disease; a negative change from Baseline indicates improvement.
LS means were calculated from an analysis of covariance (ANCOVA) model with Baseline, treatment and vIGA-AD categories in the model.

End point type	Secondary

End point timeframe:

Baseline and Weeks 28 and 52

End point values	Placebo / Risankizumab 150 mg	Placebo / Risankizumab 300 mg	Risankizumab 150 mg / Risankizumab 150 mg	Risankizumab 300 mg / Risankizumab 300 mg
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	8[15]	5[16]	45[17]	43[18]
Units: percent change				
least squares mean (standard error)				
Week 28	-58.60 (± 12.091)	-59.81 (± 14.956)	-62.44 (± 5.065)	-63.77 (± 5.051)
Week 52	-31.39 (± 12.979)	-76.75 (± 14.199)	-67.47 (± 4.663)	-62.70 (± 4.875)

Notes:

[15] - Intent-to-treat population with available data at each time point; N=5 at Week 52

[16] - Intent-to-treat population with available data at each time point; N=4 at Week 52

[17] - Intent-to-treat population with available data at each time point; N=37 at Week 52

[18] - Intent-to-treat population with available data at each time point; N= 33 at Week 52

Statistical analyses

No statistical analyses for this end point

Secondary: Percentage of Participants Who Achieved an EASI 75 Response at Week 28 and Week 52

End point title	Percentage of Participants Who Achieved an EASI 75 Response at Week 28 and Week 52

End point description:

EASI is a tool used to measure the extent (area) and severity of atopic eczema based on assessments of the head/neck, trunk, upper limbs and lower limbs. For each region the area score is recorded as the percentage of skin affected by eczema. For each region, the severity score is calculated as the sum of the intensity scores (scored as none [0], mild [1], moderate [2], or severe [3]) for redness (erythema, inflammation), thickness (induration, papulation, swelling - acute eczema), scratching (excoriation), and lichenification (lined skin, prurigo nodules - chronic eczema).

The total EASI score for each region is calculated by multiplying the severity score by the area score, with adjustment for the proportion of the body region to the whole body. The final EASI score is the sum of the 4 region scores and ranges from 0 to 72 where higher scores represent worse disease. "99999" indicates values that could not be calculated.

End point type	Secondary

End point timeframe:

Baseline and Weeks 28 and 52

End point values	Placebo / Risankizumab 150 mg	Placebo / Risankizumab 300 mg	Risankizumab 150 mg / Risankizumab 150 mg	Risankizumab 300 mg / Risankizumab 300 mg
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	8[19]	5[20]	45[21]	43[22]
Units: percentage of participants				
number (confidence interval 95%)				
Week 28	37.5 (4.0 to 71.0)	0 (-99999 to 99999)	53.3 (38.8 to 67.9)	41.9 (27.1 to 56.6)
Week 52	0 (-99999 to 99999)	75.0 (32.6 to 100.0)	43.2 (27.3 to 59.2)	45.5 (28.5 to 62.4)

Notes:

[19] - Intent-to-treat population with available data at each time point; N = 5 at Week 52

[20] - Intent-to-treat population with available data at each time point; N = 4 at Week 52

[21] - Intent-to-treat population with available data at each time point; N = 37 at Week 52

[22] - Intent-to-treat population with available data at each time point; N = 33 at Week 52

Statistical analyses

No statistical analyses for this end point

Secondary: Percentage of Participants Who Achieved an EASI 50 Response at Week 16

End point title	Percentage of Participants Who Achieved an EASI 50 Response at Week 16

End point description:

EASI is a tool used to measure the extent (area) and severity of atopic eczema based on assessments of the head/neck, trunk, upper limbs and lower limbs. For each region the area score is recorded as the percentage of skin affected and the severity score is calculated as the sum of the intensity scores (scored as none [0], mild [1], moderate [2], or severe [3]) for redness (erythema, inflammation), thickness (induration, papulation, swelling - acute eczema), scratching (excoriation), and lichenification (lined skin, prurigo nodules - chronic eczema). The total EASI score for each region is calculated by multiplying the severity score by the area score, adjusting for the proportion of the body region to the whole body. The final EASI score is the sum of the 4 region scores and ranges from 0 to 72 where higher scores represent worse disease.
EASI 50 response is defined as at least a 50% reduction (improvement) from Baseline in EASI score. NRI-C imputation was used in the analysis.

End point type	Secondary

End point timeframe:

Baseline, Week 16

End point values	Placebo	Risankizumab 150 mg	Risankizumab 300 mg	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	34[23]	69	69	
Units: percentage of participants				
number (confidence interval 95%)	29.4 (14.1 to 44.7)	42.0 (30.4 to 53.7)	34.8 (23.5 to 46.0)	

Notes:

[23] - Intent-to-treat population

Statistical analyses

Statistical analysis title	Analysis of EASI 50 Response
Comparison groups	Placebo v Risankizumab 150 mg
Number of subjects included in analysis	103
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.171 [24]
Method	Cochran-Mantel-Haenszel
Parameter estimate	Adjusted Difference
Point estimate	12.9
Confidence interval	
level	95 %
sides	2-sided
lower limit	-5.6
upper limit	31.4

Notes:

[24] - Cochran-Mantel-Haenszel test stratified by Baseline disease severity (moderate [vIGA-AD 3] versus severe [vIGA-AD 4]).

Statistical analysis title	Analysis of EASI 50 Response
Comparison groups	Placebo v Risankizumab 300 mg
Number of subjects included in analysis	103
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.552 [25]
Method	Cochran-Mantel-Haenszel
Parameter estimate	Adjusted Difference
Point estimate	5.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	-13.1
upper limit	24.5

Notes:

[25] - Cochran-Mantel-Haenszel test stratified by Baseline disease severity (moderate [vIGA-AD 3] versus severe [vIGA-AD 4]).

Secondary: Percentage of Participants Who Achieved an EASI 50 Response at Week 28 and Week 52

End point title	Percentage of Participants Who Achieved an EASI 50 Response at Week 28 and Week 52

End point description:

EASI is a tool used to measure the extent (area) and severity of atopic eczema based on assessments of the head/neck, trunk, upper limbs and lower limbs. For each region the area score is recorded as the percentage of skin affected and the severity score is calculated as the sum of the intensity scores (scored as none [0], mild [1], moderate [2], or severe [3]) for redness (erythema, inflammation), thickness (induration, papulation, swelling - acute eczema), scratching (excoriation), and lichenification (lined skin, prurigo nodules - chronic eczema). The total EASI score for each region is calculated by multiplying the severity score by the area score, adjusting for the proportion of the body region to the whole body. The final EASI score is the sum of the 4 region scores and ranges from 0 to 72 where higher scores represent worse disease.
EASI 50 response is defined as at least a 50% reduction (improvement) from Baseline in EASI score.

End point type	Secondary

End point timeframe:

Baseline and Weeks 28 and 52

End point values	Placebo / Risankizumab 150 mg	Placebo / Risankizumab 300 mg	Risankizumab 150 mg / Risankizumab 150 mg	Risankizumab 300 mg / Risankizumab 300 mg
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	8[26]	5[27]	45[28]	43[29]
Units: percentage of participants				
number (confidence interval 95%)				
Week 28	75.0 (45.0 to 100.0)	80.0 (44.9 to 100.0)	73.3 (60.4 to 86.3)	74.4 (61.4 to 87.5)
Week 52	40.0 (0.0 to 82.9)	75.0 (32.6 to 100.0)	78.4 (65.1 to 91.6)	72.7 (57.5 to 87.9)

Notes:

[26] - Intent-to-treat population with available data at each time point; N=5 at Week 52

[27] - Intent-to-treat population with available data at each time point; N=4 at Week 52

[28] - Intent-to-treat population with available data at each time point; N=37 at Week 52

[29] - Intent-to-treat population with available data at each time point; N=33 at Week 52

Statistical analyses

No statistical analyses for this end point

Secondary: Percentage of Participants Who Achieved an EASI 90 Response at Week 16

End point title	Percentage of Participants Who Achieved an EASI 90 Response at Week 16

End point description:

EASI is a tool used to measure the extent (area) and severity of atopic eczema based on assessments of the head/neck, trunk, upper limbs and lower limbs. For each region the area score is recorded as the percentage of skin affected and the severity score is calculated as the sum of the intensity scores (scored as none [0], mild [1], moderate [2], or severe [3]) for redness (erythema, inflammation), thickness (induration, papulation, swelling - acute eczema), scratching (excoriation), and lichenification (lined skin, prurigo nodules - chronic eczema). The total EASI score for each region is calculated by multiplying the severity score by the area score, adjusting for the proportion of the body region to the whole body. The final EASI score is the sum of the 4 region scores and ranges from 0 to 72 where higher scores represent worse disease.
EASI 90 response is defined as at least a 90% reduction (improvement) from Baseline in EASI score.
NRI-C imputation was used in the analysis.

End point type	Secondary

End point timeframe:

Baseline and Week 16

End point values	Placebo	Risankizumab 150 mg	Risankizumab 300 mg	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	34[30]	69	69	
Units: percentage of participants				
number (confidence interval 95%)	2.9 (0.0 to 8.6)	14.5 (6.2 to 22.8)	8.7 (2.0 to 15.3)	

Notes:

[30] - Intent-to-treat population

Statistical analyses

Statistical analysis title	Analysis of EASI 90 Response
Comparison groups	Placebo v Risankizumab 150 mg
Number of subjects included in analysis	103
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.022 [31]
Method	Cochran-Mantel-Haenszel
Parameter estimate	Adjusted Difference
Point estimate	11.6
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.7
upper limit	21.6

Notes:

[31] - Cochran-Mantel-Haenszel test stratified by Baseline disease severity (moderate [vIGA-AD 3] versus severe [vIGA-AD 4]).

Statistical analysis title	Analysis of EASI 90 Response
Comparison groups	Placebo v Risankizumab 300 mg
Number of subjects included in analysis	103
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.192 [32]
Method	Cochran-Mantel-Haenszel
Parameter estimate	Adjusted Difference
Point estimate	5.8
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.9
upper limit	14.4

Notes:

[32] - Cochran-Mantel-Haenszel test stratified by Baseline disease severity (moderate [vIGA-AD 3] versus severe [vIGA-AD 4]).

Secondary: Percentage of Participants Who Achieved an EASI 90 Response at Week

28 and Week 52

End point title	Percentage of Participants Who Achieved an EASI 90 Response at Week 28 and Week 52

End point description:

EASI is a tool used to measure the extent (area) and severity of atopic eczema based on assessments of the head/neck, trunk, upper limbs and lower limbs. For each region the area score is recorded as the percentage of skin affected and the severity score is calculated as the sum of the intensity scores (scored as none [0], mild [1], moderate [2], or severe [3]) for redness (erythema, inflammation), thickness (induration, papulation, swelling - acute eczema), scratching (excoriation), and lichenification (lined skin, prurigo nodules - chronic eczema). The total EASI score for each region is calculated by multiplying the severity score by the area score, adjusting for the proportion of the body region to the whole body. The final EASI score is the sum of the 4 region scores and ranges from 0 to 72 where higher scores represent worse disease.
EASI 90 response is defined as at least a 90% reduction from Baseline in EASI score.
"99999" indicates values that could not be calculated.

End point type	Secondary

End point timeframe:

Baseline and Weeks 28 and 52

End point values	Placebo / Risankizumab 150 mg	Placebo / Risankizumab 300 mg	Risankizumab 150 mg / Risankizumab 150 mg	Risankizumab 300 mg / Risankizumab 300 mg
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	8[33]	5[34]	45[35]	43[36]
Units: percentage of participants				
number (confidence interval 95%)				
Week 28	25.0 (0.0 to 55.0)	0 (-99999 to 99999)	26.7 (13.7 to 39.6)	27.9 (14.5 to 41.3)
Week 52	0 (-99999 to 99999)	0 (-99999 to 99999)	24.3 (10.5 to 38.1)	18.2 (5.0 to 31.3)

Notes:

[33] - Intent-to-treat population with available data at each time point; N=5 at Week 52

[34] - Intent-to-treat population with available data at each time point; N=4 at Week 52

[35] - Intent-to-treat population with available data at each time point; N=37 at Week 52

[36] - Intent-to-treat population with available data at each time point; N=33 at Week 52

Statistical analyses

No statistical analyses for this end point

Secondary: Percentage of Participants Who Achieved a vIGA-AD Score of "0" or "1" With a Reduction From Baseline of ≥ 2 Points at Week 28 and Week 52

End point title	Percentage of Participants Who Achieved a vIGA-AD Score of "0" or "1" With a Reduction From Baseline of ≥ 2 Points at Week 28 and Week 52

End point description:

Validated Investigator Global Assessment scale for Atopic Dermatitis (vIGA-AD) was used to assess the severity of AD based on lesion appearance on the following scale:
0-Clear: No signs of AD;
1-Almost clear: Barely perceptible erythema, induration/papulation and/or lichenification;
2-Mild: Slight but definite erythema, induration/papulation and/or minimal lichenification. No oozing or crusting;
3-Moderate: Clearly perceptible erythema, induration/papulation and/or lichenification, possible oozing or crusting;
4-Severe: Marked erythema, induration/papulation and/or lichenification; possible oozing or crusting.

"99999" indicates values that could not be calculated.

End point type	Secondary

End point timeframe:

Baseline and Weeks 28 and 52

End point values	Placebo / Risankizumab 150 mg	Placebo / Risankizumab 300 mg	Risankizumab 150 mg / Risankizumab 150 mg	Risankizumab 300 mg / Risankizumab 300 mg
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	8[37]	5[38]	45[39]	43[40]
Units: percentage of participants				
number (confidence interval 95%)				
Week 28	0 (-99999 to 99999)	0 (-99999 to 99999)	22.2 (10.1 to 34.4)	25.6 (12.5 to 38.6)
Week 52	0 (-99999 to 99999)	0 (-99999 to 99999)	24.3 (10.5 to 38.1)	21.2 (7.3 to 35.2)

Notes:

[37] - Intent-to-treat population with available data at each time point; N=5 at Week 52

[38] - Intent-to-treat population with available data at each time point; N=4 at Week 52

[39] - Intent-to-treat population with available data at each time point; N=37 at Week 52

[40] - Intent-to-treat population with available data at each time point; N=33 at Week 52

Statistical analyses

No statistical analyses for this end point

Secondary: Change From Baseline in Percentage of Body Surface Area (BSA) Affected by Atopic Dermatitis at Week 16

End point title	Change From Baseline in Percentage of Body Surface Area (BSA) Affected by Atopic Dermatitis at Week 16

End point description:

Body surface area (BSA) affected by atopic dermatitis was assessed by the physician and is expressed as a percentage of the total BSA. For purposes of the estimation, the total surface of the participant's palm plus five digits was assumed to be approximately equivalent to 1% BSA. A negative change from Baseline indicates improvement.
Missing data were handled using a mixed-effect model with repeated measurements (MMRM).

End point type	Secondary

End point timeframe:

Baseline and Week 16

End point values	Placebo	Risankizumab 150 mg	Risankizumab 300 mg	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	17[41]	51[42]	43[43]	
Units: percentage of body surface area				
least squares mean (standard error)	-7.41 (± 3.813)	-13.64 (± 2.429)	-13.27 (± 2.569)	

Notes:

[41] - ITT population; non-missing Baseline and Week 16 data contributed to the repeated measures model.
[42] - ITT population; non-missing Baseline and Week 16 data contributed to the repeated measures model.
[43] - ITT population; non-missing Baseline and Week 16 data contributed to the repeated measures model.

Statistical analyses

Statistical analysis title	Analysis of Change from Baseline in BSA
Comparison groups	Placebo v Risankizumab 150 mg
Number of subjects included in analysis	68
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.169 [44]
Method	Mixed Effect Model Repeated Measurement
Parameter estimate	LS Mean Difference
Point estimate	-6.24
Confidence interval	
level	95 %
sides	2-sided
lower limit	-15.15
upper limit	2.68
Variability estimate	Standard error of the mean
Dispersion value	4.506

Notes:

[44] - MMRM analysis with treatment, visit, treatment-by-visit interaction, vIGA-AD categories (moderate vs severe) and Baseline value in the model.

Statistical analysis title	Analysis of Change from Baseline in BSA
Comparison groups	Placebo v Risankizumab 300 mg
Number of subjects included in analysis	60
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.204 [45]
Method	Mixed Effect Model Repeated Measurement
Parameter estimate	LS Mean Difference
Point estimate	-5.86
Confidence interval	
level	95 %
sides	2-sided
lower limit	-14.94
upper limit	3.22
Variability estimate	Standard error of the mean
Dispersion value	4.589

Notes:

[45] - MMRM analysis with treatment, visit, treatment-by-visit interaction, vIGA-AD categories (moderate vs severe) and Baseline value in the model.

Secondary: Change From Baseline in Percentage of Body Surface Area (BSA) Affected by Atopic Dermatitis at Weeks 28 and 52

End point title	Change From Baseline in Percentage of Body Surface Area (BSA) Affected by Atopic Dermatitis at Weeks 28 and 52

End point description:

Body surface area (BSA) affected by atopic dermatitis was assessed by the physician and is expressed as a percentage of the total BSA. For purposes of the estimation, the total surface of the participant's palm plus five digits was assumed to be approximately equivalent to 1% BSA. A negative change from Baseline indicates improvement.
LS means and standard errors were calculated from ANCOVA with Baseline, treatment and stratrum (Baseline vIGA-AD categories) in the model.

End point type	Secondary

End point timeframe:

Baseline and Weeks 28 and 52

End point values	Placebo / Risankizumab 150 mg	Placebo / Risankizumab 300 mg	Risankizumab 150 mg / Risankizumab 150 mg	Risankizumab 300 mg / Risankizumab 300 mg
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	8[46]	5[47]	45[48]	43[49]
Units: percentage of body surface area				
least squares mean (standard error)				
Week 28	-20.07 (± 5.843)	-11.90 (± 7.294)	-23.23 (± 2.438)	-23.22 (± 2.443)
Week 52	-0.86 (± 6.525)	-30.23 (± 7.316)	-29.26 (± 2.400)	-22.14 (± 2.510)

Notes:

[46] - Intent-to-treat population with available data at each time point; N=5 at Week 52

[47] - Intent-to-treat population with available data at each time point; N=4 at Week 52

[48] - Intent-to-treat population with available data at each time point; N=37 at Week 52

[49] - Intent-to-treat population with available data at each time point; N=33 at Week 52

Statistical analyses

No statistical analyses for this end point

Secondary: Percentage of Participants Who Achieved a 50% Improvement in SCORing Atopic Dermatitis (SCORAD) Score (SCORAD 50 Response) at Week 16

End point title	Percentage of Participants Who Achieved a 50% Improvement in SCORing Atopic Dermatitis (SCORAD) Score (SCORAD 50 Response) at Week 16

End point description:

SCORAD is a clinical tool used to assess the extent and severity of eczema (SCORing Atopic Dermatitis). The extent is assessed using the rule of 9 to calculate the affected area (A) as a percentage of the whole body (0-100%). The intensity part of the SCORAD (B) consists of 6 items: erythema, oedema/papulation, excoriations, lichenification, oozing/crusts and dryness, each graded on a scale from 0 (none) to 3 (severe), for a total score of 0 to 18. Subjective items (C) include daily pruritus and sleeplessness, each scored on a visual analogue scale (VAS) from 0 to 10 (total score 0-20). SCORAD is calculated as A/5 + 7B/2 + C, and ranges from 0 to 103 (worst).
Non-responder imputation incorporating multiple imputation (MI) to handle missing data due to COVID-19 (NRI-C) was used in the analysis.

End point type	Secondary

End point timeframe:

Baseline and Week 16

End point values	Placebo	Risankizumab 150 mg	Risankizumab 300 mg	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	34[50]	69	69	
Units: percentage of participants				
number (confidence interval 95%)	18.0 (5.0 to 31.1)	24.6 (14.5 to 34.8)	13.0 (5.1 to 21.0)	

Notes:

[50] - Intent-to-treat population

Statistical analyses

Statistical analysis title	Analysis of SCORAD 50 Response
Comparison groups	Placebo v Risankizumab 150 mg
Number of subjects included in analysis	103
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.422 [51]
Method	Cochran-Mantel-Haenszel
Parameter estimate	Adjusted Difference
Point estimate	6.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	-9.7
upper limit	23.1

Notes:

[51] - Cochran-Mantel-Haenszel test stratified by Baseline disease severity (moderate [vIGA-AD 3] versus severe [vIGA-AD 4]).

Statistical analysis title	Analysis of SCORAD 50 Response
Comparison groups	Placebo v Risankizumab 300 mg
Number of subjects included in analysis	103
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.505 [52]
Method	Cochran-Mantel-Haenszel
Parameter estimate	Adjusted Difference
Point estimate	-5.2
Confidence interval	
level	95 %
sides	2-sided
lower limit	-20.3
upper limit	10

Notes:

[52] - Cochran-Mantel-Haenszel test stratified by Baseline disease severity (moderate [vIGA-AD 3] versus severe [vIGA-AD 4]).

Secondary: Percentage of Participants Who Achieved a SCORAD 50 Response at Weeks 28 and 52

End point title	Percentage of Participants Who Achieved a SCORAD 50 Response at Weeks 28 and 52

End point description:

SCORAD is a clinical tool used to assess the extent and severity of eczema (SCORing Atopic Dermatitis). The extent is assessed using the rule of 9 to calculate the affected area (A) as a percentage of the whole body (0-100%). The intensity part of the SCORAD (B) consists of 6 items: erythema, oedema/papulation, excoriations, lichenification, oozing/crusts and dryness, each graded on a scale from 0 (none) to 3 (severe), for a total score of 0 to 18. Subjective items (C) include daily pruritus and sleeplessness, each scored on a visual analogue scale (VAS) from 0 to 10 (total score 0-20). SCORAD is calculated as A/5 + 7B/2 + C, and ranges from 0 to 103 (worst).
"99999" indicates values that could not be calculated.

End point type	Secondary

End point timeframe:

Baseline and Weeks 28 and 52

End point values	Placebo / Risankizumab 150 mg	Placebo / Risankizumab 300 mg	Risankizumab 150 mg / Risankizumab 150 mg	Risankizumab 300 mg / Risankizumab 300 mg
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	9[53]	5[54]	46[55]	43[56]
Units: percentage of participants				
number (confidence interval 95%)				
Week 28	44.4 (12.0 to 76.9)	20.0 (0.0 to 55.1)	47.8 (33.4 to 62.3)	37.2 (22.8 to 51.7)
Week 52	0 (-99999 to 99999)	50.0 (1.0 to 99.0)	52.6 (36.8 to 68.5)	35.1 (19.8 to 50.5)

Notes:

[53] - Intent-to-treat population with available data at each time point; N=6 at Week 52

[54] - Intent-to-treat population with available data at each time point; N=4 at Week 52

[55] - Intent-to-treat population with available data at each time point; N=38 at Week 52

[56] - Intent-to-treat population with available data at each time point; N=37 at Week 52

Statistical analyses

No statistical analyses for this end point

Secondary: Percentage of Participants Who Achieved a SCORAD 75 Response at Week 16

End point title	Percentage of Participants Who Achieved a SCORAD 75 Response at Week 16

End point description:

SCORAD is a clinical tool used to assess the extent and severity of eczema (SCORing Atopic Dermatitis). The extent is assessed using the rule of 9 to calculate the affected area (A) as a percentage of the whole body (0-100%). The intensity part of the SCORAD (B) consists of 6 items: erythema, oedema/papulation, excoriations, lichenification, oozing/crusts and dryness, each graded on a scale from 0 (none) to 3 (severe), for a total score of 0 to 18. Subjective items (C) include daily pruritus and sleeplessness, each scored on a visual analogue scale (VAS) from 0 to 10 (total score 0-20). SCORAD is calculated as A/5 + 7B/2 + C, and ranges from 0 to 103 (worst).
A SCORAD 75 response is defined as at least a 75% reduction (improvement) from Baseline in SCORAD score.
Non-responder imputation incorporating multiple imputation (MI) to handle missing data due to COVID-19 (NRI-C) was used in the analysis. "99999" indicates values that could not be calculated.

End point type	Secondary

End point timeframe:

Baseline and Week 16

End point values	Placebo	Risankizumab 150 mg	Risankizumab 300 mg	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	34[57]	69	69	
Units: percentage of participants				
number (confidence interval 95%)	0 (-99999 to 99999)	10.1 (3.0 to 17.3)	2.9 (0.0 to 6.9)	

Notes:

[57] - Intent-to-treat population

Statistical analyses

Statistical analysis title	Analysis of SCORAD 75 Response
Comparison groups	Placebo v Risankizumab 150 mg
Number of subjects included in analysis	103
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.005 [58]
Method	Cochran-Mantel-Haenszel
Parameter estimate	Adjusted Difference
Point estimate	10.1
Confidence interval	
level	95 %
sides	2-sided
lower limit	3
upper limit	17.3

Notes:

[58] - Cochran-Mantel-Haenszel test stratified by Baseline disease severity (moderate [vIGA-AD 3] versus severe [vIGA-AD 4]).

Statistical analysis title	Analysis of SCORAD 75 Response
Comparison groups	Placebo v Risankizumab 300 mg
Number of subjects included in analysis	103
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.151 [59]
Method	Cochran-Mantel-Haenszel
Parameter estimate	Adjusted Difference
Point estimate	2.9
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.1
upper limit	6.8

Notes:

[59] - Cochran-Mantel-Haenszel test stratified by Baseline disease severity (moderate [vIGA-AD 3] versus severe [vIGA-AD 4]).

Secondary: Percentage of Participants Who Achieved a SCORAD 75 Response at

Weeks 28 and 52

End point title	Percentage of Participants Who Achieved a SCORAD 75 Response at Weeks 28 and 52

End point description:

SCORAD is a clinical tool used to assess the extent and severity of eczema (SCORing Atopic Dermatitis). The extent is assessed using the rule of 9 to calculate the affected area (A) as a percentage of the whole body (0-100%). The intensity part of the SCORAD (B) consists of 6 items: erythema, oedema/papulation, excoriations, lichenification, oozing/crusts and dryness, each graded on a scale from 0 (none) to 3 (severe), for a total score of 0 to 18. Subjective items (C) include daily pruritus and sleeplessness, each scored on a visual analogue scale (VAS) from 0 to 10 (total score 0-20). SCORAD is calculated as A/5 + 7B/2 + C, and ranges from 0 to 103 (worst).
A SCORAD 75 response is defined as at least a 75% reduction (improvement) from Baseline in SCORAD score.
"99999" indicates values that could not be calculated.

End point type	Secondary

End point timeframe:

Baseline and Weeks 28 and 52

End point values	Placebo / Risankizumab 150 mg	Placebo / Risankizumab 300 mg	Risankizumab 150 mg / Risankizumab 150 mg	Risankizumab 300 mg / Risankizumab 300 mg
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	9[60]	5[61]	46[62]	43[63]
Units: percentage of participants				
number (confidence interval 95%)				
Week 28	11.1 (0.0 to 31.6)	0 (-99999 to 99999)	23.9 (11.6 to 36.2)	11.6 (2.0 to 21.2)
Week 52	0 (-99999 to 99999)	0 (-99999 to 99999)	21.1 (8.1 to 34.0)	13.5 (2.5 to 24.5)

Notes:

[60] - Intent-to-treat population with available data at each time point; N=6 at Week 52

[61] - Intent-to-treat population with available data at each time point; N=4 at Week 52

[62] - Intent-to-treat population with available data at each time point; N=38 at Week 52

[63] - Intent-to-treat population with available data at each time point; N=37 at Week 52

Statistical analyses

No statistical analyses for this end point

Secondary: Percentage of Participants Who Achieved a SCORAD 90 Response at Week 16

End point title	Percentage of Participants Who Achieved a SCORAD 90 Response at Week 16

End point description:

SCORAD is a clinical tool used to assess the extent and severity of eczema (SCORing Atopic Dermatitis). The extent is assessed using the rule of 9 to calculate the affected area (A) as a percentage of the whole body (0-100%). The intensity part of the SCORAD (B) consists of 6 items: erythema, oedema/papulation, excoriations, lichenification, oozing/crusts and dryness, each graded on a scale from 0 (none) to 3 (severe), for a total score of 0 to 18. Subjective items (C) include daily pruritus and sleeplessness, each scored on a visual analogue scale (VAS) from 0 to 10 (total score 0-20). SCORAD is calculated as A/5 + 7B/2 + C, and ranges from 0 to 103 (worst).
A SCORAD 90 response is defined as at least a 90% reduction (improvement) from Baseline in SCORAD score.
Non-responder imputation incorporating multiple imputation (MI) to handle missing data due to COVID-19 (NRI-C) was used in the analysis. "99999" indicates values that could not be calculated.

End point type	Secondary

End point timeframe:

Baseline and Week 16

End point values	Placebo	Risankizumab 150 mg	Risankizumab 300 mg	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	34[64]	69	69	
Units: percentage of participants				
number (confidence interval 95%)	0 (-99999 to 99999)	5.8 (0.3 to 11.3)	1.4 (0.0 to 4.3)	

Notes:

[64] - Intent-to-treat population

Statistical analyses

Statistical analysis title	Analysis of SCORAD 90 Response
Comparison groups	Placebo v Risankizumab 150 mg
Number of subjects included in analysis	103
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.035 [65]
Method	Cochran-Mantel-Haenszel
Parameter estimate	Adjusted Difference
Point estimate	5.9
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.4
upper limit	11.3

Notes:

[65] - Cochran-Mantel-Haenszel test stratified by Baseline disease severity (moderate [vIGA-AD 3] versus severe [vIGA-AD 4]).

Statistical analysis title	Analysis of SCORAD 90 Response
Comparison groups	Placebo v Risankizumab 300 mg
Number of subjects included in analysis	103
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.311 [66]
Method	Cochran-Mantel-Haenszel
Parameter estimate	Adjusted Difference
Point estimate	1.5
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.4
upper limit	4.4

Notes:

[66] - Cochran-Mantel-Haenszel test stratified by Baseline disease severity (moderate [vIGA-AD 3] versus severe [vIGA-AD 4]).

Secondary: Percentage of Participants Who Achieved a SCORAD 90 Response at Weeks 28 and 52

End point title	Percentage of Participants Who Achieved a SCORAD 90 Response at Weeks 28 and 52

End point description:

SCORAD is a clinical tool used to assess the extent and severity of eczema (SCORing Atopic Dermatitis). The extent is assessed using the rule of 9 to calculate the affected area (A) as a percentage of the whole body (0-100%). The intensity part of the SCORAD (B) consists of 6 items: erythema, oedema/papulation, excoriations, lichenification, oozing/crusts and dryness, each graded on a scale from 0 (none) to 3 (severe), for a total score of 0 to 18. Subjective items (C) include daily pruritus and sleeplessness, each scored on a visual analogue scale (VAS) from 0 to 10 (total score 0-20). SCORAD is calculated as A/5 + 7B/2 + C, and ranges from 0 to 103 (worst).
A SCORAD 90 response is defined as at least a 90% reduction (improvement) from Baseline in SCORAD score.
"99999" indicates values that could not be calculated.

End point type	Secondary

End point timeframe:

Baseline and Weeks 28 and 52

End point values	Placebo / Risankizumab 150 mg	Placebo / Risankizumab 300 mg	Risankizumab 150 mg / Risankizumab 150 mg	Risankizumab 300 mg / Risankizumab 300 mg
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	9[67]	5[68]	46[69]	43[70]
Units: percentage of participants				
number (confidence interval 95%)				
Week 28	0 (-99999 to 99999)	0 (-99999 to 99999)	6.5 (0.0 to 13.7)	4.7 (0.0 to 10.9)
Week 52	0 (-99999 to 99999)	0 (-99999 to 99999)	15.8 (4.2 to 27.4)	10.8 (0.8 to 20.8)

Notes:

[67] - Intent-to-treat population with available data at each time point; N=6 at Week 52

[68] - Intent-to-treat population with available data at each time point; N=4 at Week 52

[69] - Intent-to-treat population with available data at each time point; N=38 at Week 52

[70] - Intent-to-treat population with available data at each time point; N=37 at Week 52

Statistical analyses

No statistical analyses for this end point

Secondary: Percentage of Participants Who Achieved a Dermatology Life Quality Index (DLQI) Score of "0" or "1" at Week 16

End point title	Percentage of Participants Who Achieved a Dermatology Life Quality Index (DLQI) Score of "0" or "1" at Week 16

End point description:

The DLQI is a 10-item validated questionnaire used to assess the impact of AD disease symptoms and treatment on quality of life (QoL). It consists of 10 questions evaluating impact of skin diseases on different aspects of a participant's QoL over the prior week, including symptoms and feelings, daily activities, leisure, work or school, personal relationships, and the side effects of treatment. Each item is scored on a 4-point scale (0 = not at all/not relevant; 1 = a little; 2 = a lot; and 3 = very much). Item scores are added to provide a total score, ranging from 0 to 30, with higher scores indicating

greater impairment of QoL. A score of 0 or 1 means that the disease has no effect at all.
Non-responder imputation incorporating multiple imputation (MI) to handle missing data due to COVID-19 (NRI-C) was used in the analysis.

End point type	Secondary

End point timeframe:

Baseline and Week 16

End point values	Placebo	Risankizumab 150 mg	Risankizumab 300 mg	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	34[71]	69	69	
Units: percentage of participants				
number (confidence interval 95%)	9.0 (0.0 to 18.8)	8.7 (2.0 to 15.3)	5.8 (0.3 to 11.3)	

Notes:

[71] - Intent-to-treat population

Statistical analyses

Statistical analysis title	Analysis of DLQI Response
Comparison groups	Placebo v Risankizumab 150 mg
Number of subjects included in analysis	103
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.965 [72]
Method	Cochran-Mantel-Haenszel
Parameter estimate	Adjusted Difference
Point estimate	-0.3
Confidence interval	
level	95 %
sides	2-sided
lower limit	-12
upper limit	11.5

Notes:

[72] - Cochran-Mantel-Haenszel test stratified by Baseline disease severity (moderate [vIGA-AD 3] versus severe [vIGA-AD 4]).

Statistical analysis title	Analysis of DLQI Response
Comparison groups	Placebo v Risankizumab 300 mg
Number of subjects included in analysis	103
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.583 [73]
Method	Cochran-Mantel-Haenszel
Parameter estimate	Adjusted Difference
Point estimate	-3.1

Confidence interval	
level	95 %
sides	2-sided
lower limit	-14.3
upper limit	8.1

Notes:

[73] - Cochran-Mantel-Haenszel test stratified by Baseline disease severity (moderate [vIGA-AD 3] versus severe [vIGA-AD 4]).

Secondary: Percentage of Participants Who Achieved a DLQI Score of "0" or "1" at Week 28 and Week 52

End point title	Percentage of Participants Who Achieved a DLQI Score of "0" or "1" at Week 28 and Week 52

End point description:

The DLQI is a 10-item validated questionnaire used to assess the impact of AD disease symptoms and treatment on quality of life (QoL). It consists of 10 questions evaluating impact of skin diseases on different aspects of a participant's QoL over the prior week, including symptoms and feelings, daily activities, leisure, work or school, personal relationships, and the side effects of treatment. Each item is scored on a 4-point scale (0 = not at all/not relevant; 1 = a little; 2 = a lot; and 3 = very much). Item scores are added to provide a total score, ranging from 0 to 30, with higher scores indicating greater impairment of QoL. A score of 0 or 1 means that the disease has no effect at all.

End point type	Secondary

End point timeframe:

Weeks 28 and 52

End point values	Placebo / Risankizumab 150 mg	Placebo / Risankizumab 300 mg	Risankizumab 150 mg / Risankizumab 150 mg	Risankizumab 300 mg / Risankizumab 300 mg
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	9[74]	5[75]	49[76]	44[77]
Units: percentage of participants				
number (confidence interval 95%)				
Week 28	22.2 (0.0 to 49.4)	20.0 (0.0 to 55.1)	16.3 (6.0 to 26.7)	13.6 (3.5 to 23.8)
Week 52	20.0 (0.0 to 55.1)	25.0 (0.0 to 67.4)	13.9 (2.6 to 25.2)	15.6 (3.0 to 28.2)

Notes:

[74] - ITT population with available data at each time point; N=5 at Week 52

[75] - ITT population with available data at each time point; N=4 at Week 52

[76] - ITT population with available data at each time point; N=36 at Week 52

[77] - ITT population with available data at each time point; N=32 at Week 52

Statistical analyses

No statistical analyses for this end point

Secondary: Percentage of Participants Who Achieved a Children's Dermatology Life Quality Index (CDLQI) Score of "0" or "1" at Week 16

End point title	Percentage of Participants Who Achieved a Children's Dermatology Life Quality Index (CDLQI) Score of "0" or "1" at Week 16

End point description:

The CDLQI is a 10-item, validated questionnaire used to assess the impact of AD disease symptoms and

treatment on QoL. The CDLQI has been validated for use in individuals 4-16 years old. It consists of 10 questions assessing impact of skin diseases on different aspects of a patient's QoL over the prior week. The CDLQI items include symptoms and feelings, daily activities, leisure, school, relationships, sleep, and treatment. Each item is scored on a 4-point scale (0 = not at all; 1 = only a little; 2 = quite a lot; and 3 = very much). Item scores (0 to 3) are added to provide a total score range of 0 to 30; higher scores indicate greater impairment of QoL. A score of 0 or 1 means that the disease has no effect at all. In this study, the CDLQI was administered to participants who were < 16 years old at Baseline. Non-responder imputation incorporating multiple imputation (MI) to handle missing data due to COVID-19 (NRI-C) was used in the analysis.

End point type	Secondary

End point timeframe:

Week 16

End point values	Placebo	Risankizumab 150 mg	Risankizumab 300 mg	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	0[78]	1[79]	1[80]	
Units: percentage of participants				
number (not applicable)		0	0	

Notes:

[78] - Intent-to-treat population < 16 years old at the Baseline visit

[79] - Intent-to-treat population < 16 years old at the Baseline visit

[80] - Intent-to-treat population < 16 years old at the Baseline visit

Statistical analyses

No statistical analyses for this end point

Secondary: Percentage of Participants Who Achieved a CDLQI Score of "0" or "1" at Week 28 and Week 52

End point title	Percentage of Participants Who Achieved a CDLQI Score of "0" or "1" at Week 28 and Week 52

End point description:

The CDLQI is a 10-item, validated questionnaire used to assess the impact of AD disease symptoms and treatment on QoL. The CDLQI has been validated for use in individuals 4-16 years old. It consists of 10 questions assessing impact of skin diseases on different aspects of a patient's QoL over the prior week. The CDLQI items include symptoms and feelings, daily activities, leisure, school, relationships, sleep, and treatment. Each item is scored on a 4-point scale (0 = not at all; 1 = only a little; 2 = quite a lot; and 3 = very much). Item scores (0 to 3) are added to provide a total score range of 0 to 30; higher scores indicate greater impairment of QoL. A score of 0 or 1 means that the disease has no effect at all. In this study, the CDLQI was administered to participants who were < 16 years old at Baseline. There were no participants with available CDLQI results at Week 52, so only Week 28 results are presented.

End point type	Secondary

End point timeframe:

Week 28 and Week 52

End point values	Placebo / Risankizumab 150 mg	Placebo / Risankizumab 300 mg	Risankizumab 150 mg / Risankizumab 150 mg	Risankizumab 300 mg / Risankizumab 300 mg
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	0[81]	0[82]	1[83]	0[84]
Units: percentage of participants				
number (not applicable)			0	

Notes:

[81] - Intent-to-treat population < 16 years old at the Baseline visit with available data

[82] - Intent-to-treat population < 16 years old at the Baseline visit with available data

[83] - Intent-to-treat population < 16 years old at the Baseline visit with available data

[84] - Intent-to-treat population < 16 years old at the Baseline visit with available data

Statistical analyses

No statistical analyses for this end point

Secondary: Percentage of Participants Who Achieved a Reduction in DLQI of ≥ 4 Points From Baseline to Week 16 Among Those with a DLQI ≥ 4 at Baseline

End point title	Percentage of Participants Who Achieved a Reduction in DLQI of ≥ 4 Points From Baseline to Week 16 Among Those with a DLQI ≥ 4 at Baseline

End point description:

The DLQI is a 10-item validated questionnaire used to assess the impact of AD disease symptoms and treatment on quality of life (QoL). It consists of 10 questions evaluating impact of skin diseases on different aspects of a participant's QoL over the prior week, including symptoms and feelings, daily activities, leisure, work or school, personal relationships, and the side effects of treatment. Each item is scored on a 4-point scale (0 = not at all/not relevant; 1 = a little; 2 = a lot; and 3 = very much). Item scores are added to provide a total score, ranging from 0 to 30, with higher scores indicating greater impairment of QoL.
A change in DLQI score of at least 4 points is considered the minimum clinically important difference (MCID).
Non-responder imputation incorporating multiple imputation (MI) to handle missing data due to COVID-19 (NRI-C) was used in the analysis.

End point type	Secondary

End point timeframe:

Baseline and Week 16

End point values	Placebo	Risankizumab 150 mg	Risankizumab 300 mg	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	32[85]	64	64	
Units: percentage of participants				
number (confidence interval 95%)	25.6 (10.3 to 41.0)	31.3 (19.9 to 42.6)	37.5 (25.6 to 49.4)	

Notes:

[85] - Intent-to-treat population with a Baseline DLQI ≥ 4

Statistical analyses

Statistical analysis title	Analysis of DLQI MCID Response
Comparison groups	Placebo v Risankizumab 150 mg

Number of subjects included in analysis	96
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.539 [86]
Method	Cochran-Mantel-Haenszel
Parameter estimate	Adjusted Difference
Point estimate	5.9
Confidence interval	
level	95 %
sides	2-sided
lower limit	-13
upper limit	24.9

Notes:

[86] - Cochran-Mantel-Haenszel test stratified by Baseline disease severity (moderate [vIGA-AD 3] versus severe [vIGA-AD 4]).

Statistical analysis title	Analysis of DLQI MCID Response
Comparison groups	Placebo v Risankizumab 300 mg
Number of subjects included in analysis	96
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.213 [87]
Method	Cochran-Mantel-Haenszel
Parameter estimate	Adjusted Difference
Point estimate	12.2
Confidence interval	
level	95 %
sides	2-sided
lower limit	-7
upper limit	31.5

Notes:

[87] - Cochran-Mantel-Haenszel test stratified by Baseline disease severity (moderate [vIGA-AD 3] versus severe [vIGA-AD 4]).

Secondary: Percentage of Participants Who Achieved a Reduction in DLQI of ≥ 4 Points From Baseline to Week 28 and Week 52 Among Those with a DLQI ≥ 4 at Baseline

End point title	Percentage of Participants Who Achieved a Reduction in DLQI of ≥ 4 Points From Baseline to Week 28 and Week 52 Among Those with a DLQI ≥ 4 at Baseline

End point description:

The DLQI is a 10-item validated questionnaire used to assess the impact of AD disease symptoms and treatment on quality of life (QoL). It consists of 10 questions evaluating impact of skin diseases on different aspects of a participant's QoL over the prior week, including symptoms and feelings, daily activities, leisure, work or school, personal relationships, and the side effects of treatment. Each item is scored on a 4-point scale (0 = not at all/not relevant; 1 = a little; 2 = a lot; and 3 = very much). Item scores are added to provide a total score, ranging from 0 to 30, with higher scores indicating greater impairment of QoL.
A change in DLQI score of at least 4 points is considered the minimum clinically important difference (MCID).

End point type	Secondary

End point timeframe:

Baseline and Weeks 28 and 52

End point values	Placebo / Risankizumab 150 mg	Placebo / Risankizumab 300 mg	Risankizumab 150 mg / Risankizumab 150 mg	Risankizumab 300 mg / Risankizumab 300 mg
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	9[88]	5[89]	45[90]	51[91]
Units: percentage of participants				
number (confidence interval 95%)				
Week 28	77.8 (50.6 to 100.0)	40.0 (0.0 to 82.9)	66.7 (52.9 to 80.4)	68.3 (54.0 to 82.5)
Week 52	60.0 (17.1 to 100.0)	50.0 (1.0 to 99.0)	63.6 (47.2 to 80.0)	66.7 (49.8 to 83.5)

Notes:

[88] - Intent-to-treat population with a Baseline DLQI of ≥ 4; N=5 at Week 52

[89] - Intent-to-treat population with a Baseline DLQI of ≥ 4; N=4 at Week 52

[90] - Intent-to-treat population with a Baseline DLQI of ≥ 4; N=33 at Week 52

[91] - Intent-to-treat population with a Baseline DLQI of ≥ 4; N=30 at Week 52

Statistical analyses

No statistical analyses for this end point

Secondary: Change From Baseline in DLQI Score at Week 16

End point title	Change From Baseline in DLQI Score at Week 16

End point description:

The DLQI is a 10-item validated questionnaire used to assess the impact of AD disease symptoms and treatment on quality of life (QoL). It consists of 10 questions evaluating impact of skin diseases on different aspects of a participant's QoL over the prior week, including symptoms and feelings, daily activities, leisure, work or school, personal relationships, and the side effects of treatment. Each item is scored on a 4-point scale (0 = not at all/not relevant; 1 = a little; 2 = a lot; and 3 = very much). Item scores are added to provide a total score, ranging from 0 to 30, with higher scores indicating greater impairment of QoL. A negative change from Baseline indicates improvement.
Missing data were handled using a mixed-effect model with repeated measurements (MMRM).

End point type	Secondary

End point timeframe:

Baseline and Week 16

End point values	Placebo	Risankizumab 150 mg	Risankizumab 300 mg	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	17[92]	49[93]	41[94]	
Units: scores on a scale				
least squares mean (standard error)	-3.4 (± 1.55)	-3.4 (± 0.95)	-4.4 (± 1.03)	

Notes:

[92] - ITT population; non-missing Baseline and Week 16 data contributed to the repeated measures model.

[93] - ITT population; non-missing Baseline and Week 16 data contributed to the repeated measures model.

[94] - ITT population; non-missing Baseline and Week 16 data contributed to the repeated measures

model.

Statistical analyses

Statistical analysis title	Analysis of Change from Baseline in DLQI
Comparison groups	Placebo v Risankizumab 150 mg
Number of subjects included in analysis	66
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.988 [95]
Method	Mixed Effect Model Repeated Measurement
Parameter estimate	LS Mean Difference
Point estimate	0
Confidence interval	
level	95 %
sides	2-sided
lower limit	-3.6
upper limit	3.6
Variability estimate	Standard error of the mean
Dispersion value	1.82

Notes:

[95] - MMRM analysis with treatment, visit, treatment-by-visit interaction, vIGA-AD categories (moderate vs severe) and Baseline value in the model.

Statistical analysis title	Analysis of Change from Baseline in DLQI
Comparison groups	Placebo v Risankizumab 300 mg
Number of subjects included in analysis	58
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.594 [96]
Method	Mixed Effect Model Repeated Measurement
Parameter estimate	LS Mean Difference
Point estimate	-1
Confidence interval	
level	95 %
sides	2-sided
lower limit	-4.7
upper limit	2.7
Variability estimate	Standard error of the mean
Dispersion value	1.86

Notes:

[96] - MMRM analysis with treatment, visit, treatment-by-visit interaction, vIGA-AD categories (moderate vs severe) and Baseline value in the model.

Secondary: Change From Baseline in DLQI Score at Weeks 28 and 52

End point title	Change From Baseline in DLQI Score at Weeks 28 and 52

End point description:

The DLQI is a 10-item validated questionnaire used to assess the impact of AD disease symptoms and

treatment on quality of life (QoL). It consists of 10 questions evaluating impact of skin diseases on different aspects of a participant's QoL over the prior week, including symptoms and feelings, daily activities, leisure, work or school, personal relationships, and the side effects of treatment. Each item is scored on a 4-point scale (0 = not at all/not relevant; 1 = a little; 2 = a lot; and 3 = very much). Item scores are added to provide a total score, ranging from 0 to 30, with higher scores indicating greater impairment of QoL. A negative change from Baseline indicates improvement.
LS means and standard errors were calculated from an ANCOVA model with Baseline, treatment and stratum (Baseline vIGA-AD categories) in the model.

End point type	Secondary

End point timeframe:

Baseline and Weeks 28 and 52

End point values	Placebo / Risankizumab 150 mg	Placebo / Risankizumab 300 mg	Risankizumab 150 mg / Risankizumab 150 mg	Risankizumab 300 mg / Risankizumab 300 mg
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	9[97]	5[98]	48[99]	43[100]
Units: scores on a scale				
least squares mean (standard error)				
Week 28	-8.0 (± 2.06)	-5.3 (± 2.69)	-7.1 (± 0.87)	-7.3 (± 0.93)
Week 52	-4.5 (± 2.99)	-5.0 (± 3.30)	-7.7 (± 1.11)	-6.5 (± 1.18)

Notes:

[97] - ITT population with available data at each time point; N=5 at Week 52

[98] - ITT population with available data at each time point; N=4 at Week 52

[99] - ITT population with available data at each time point; N=36 at Week 52

[100] - ITT population with available data at each time point; N=32 at Week 52

Statistical analyses

No statistical analyses for this end point

Secondary: Change From Baseline in CDLQI Score at Week 16

End point title	Change From Baseline in CDLQI Score at Week 16

End point description:

The CDLQI is a 10-item, validated questionnaire used to assess the impact of AD disease symptoms and treatment on QoL. The CDLQI has been validated for use in individuals 4-16 years old. It consists of 10 questions assessing impact of skin diseases on different aspects of a patient's QoL over the prior week. The CDLQI items include symptoms and feelings, daily activities, leisure, school, relationships, sleep, and treatment. Each item is scored on a 4-point scale (0 = not at all; 1 = only a little; 2 = quite a lot; and 3 = very much). Item scores (0 to 3) are added to provide a total score range of 0 to 30; higher scores indicate greater impairment of QoL. A negative change from Baseline indicates improvement.
In this study, the CDLQI was administered to participants who were < 16 years old at the Baseline visit.
Missing data were handled using a mixed-effect model with repeated measurements (MMRM).

End point type	Secondary

End point timeframe:

Baseline and Week 16

End point values	Placebo	Risankizumab 150 mg	Risankizumab 300 mg	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	0[101]	1[102]	0[103]	
Units: scores on a scale				
least squares mean (standard error)	()	-2.0 (± 0.00)	()	

Notes:

[101] - ITT population < 16 years old; No participants in this group were < 16 years old at Baseline

[102] - ITT population < 16 years old; Baseline and Week 16 data contributed to the repeated measures model.

[103] - ITT population < 16 years old; No participants in this group had available postbaseline CDLQI values

Statistical analyses

No statistical analyses for this end point

Secondary: Change From Baseline in CDLQI Score at Week 28 and Week 52

End point title	Change From Baseline in CDLQI Score at Week 28 and Week 52

End point description:

The CDLQI is a 10-item, validated questionnaire used to assess the impact of AD disease symptoms and treatment on QoL. The CDLQI has been validated for use in individuals 4-16 years old. It consists of 10 questions assessing impact of skin diseases on different aspects of a patient's QoL over the prior week. The CDLQI items include symptoms and feelings, daily activities, leisure, school, relationships, sleep, and treatment. Each item is scored on a 4-point scale (0 = not at all; 1 = only a little; 2 = quite a lot; and 3 = very much). Item scores (0 to 3) are added to provide a total score range of 0 to 30; higher scores indicate greater impairment of QoL. A negative change from Baseline indicates improvement.
In this study, the CDLQI was administered to participants who were < 16 years old at the Baseline visit. There were no participants with available CDLQI results at Week 52, so only Week 28 results are presented.

End point type	Secondary

End point timeframe:

Baseline and Weeks 28 and 52

End point values	Placebo / Risankizumab 150 mg	Placebo / Risankizumab 300 mg	Risankizumab 150 mg / Risankizumab 150 mg	Risankizumab 300 mg / Risankizumab 300 mg
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	0[104]	0[105]	1[106]	0[107]
Units: scores on a scale				
arithmetic mean (standard deviation)	()	()	1.0 (± 0.00)	()

Notes:

[104] - Intent-to-treat population < 16 years old at the Baseline visit with available data

[105] - Intent-to-treat population < 16 years old at the Baseline visit with available data

[106] - Intent-to-treat population < 16 years old at the Baseline visit with available data

[107] - Intent-to-treat population < 16 years old at the Baseline visit with available data

Statistical analyses

No statistical analyses for this end point

Secondary: Change From Baseline in Worst Pruritus Numerical Rating Scale at Week

16	
End point title	Change From Baseline in Worst Pruritus Numerical Rating Scale at Week 16

End point description:

Participants were asked to rate itch (pruritus) intensity at its worst during the past 24 hours on an 11-point scale from 0 (no itch) to 10 (worst imaginable itch). Change from Baseline was calculated from a rolling weekly average. A negative change from Baseline indicates improvement.
Missing data were handled using a mixed-effect model with repeated measurements (MMRM).

End point type	Secondary

End point timeframe:

Baseline and Week 16

End point values	Placebo	Risankizumab 150 mg	Risankizumab 300 mg	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	17[108]	45[109]	39[110]	
Units: scores on a scale				
least squares mean (standard error)	-0.098 (± 0.5110)	-1.416 (± 0.3408)	-1.746 (± 0.3619)	

Notes:

[108] - ITT population; non-missing Baseline and Week 16 data contributed to the repeated measures model.
[109] - ITT population; non-missing Baseline and Week 16 data contributed to the repeated measures model.
[110] - ITT population; non-missing Baseline and Week 16 data contributed to the repeated measures model.

Statistical analyses

Statistical analysis title	Analysis of Change from Baseline in Pruritus NRS
Comparison groups	Placebo v Risankizumab 150 mg
Number of subjects included in analysis	62
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.033 [111]
Method	Mixed Effect Model Repeated Measurement
Parameter estimate	LS Mean Difference
Point estimate	-1.318
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.531
upper limit	-0.105
Variability estimate	Standard error of the mean
Dispersion value	0.6137

Notes:

[111] - MMRM analysis with treatment, visit, treatment-by-visit interaction, vIGA-AD categories (moderate vs severe) and Baseline value in the model.

Statistical analysis title	Analysis of Change from Baseline in Pruritus NRS
Comparison groups	Placebo v Risankizumab 300 mg

Number of subjects included in analysis	56
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.009 [112]
Method	Mixed Effect Model Repeated Measurement
Parameter estimate	LS Mean Difference
Point estimate	-1.648
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.885
upper limit	-0.411
Variability estimate	Standard error of the mean
Dispersion value	0.626

Notes:

[112] - MMRM analysis with treatment, visit, treatment-by-visit interaction, vIGA-AD categories (moderate vs severe) and Baseline value in the model.

Secondary: Change From Baseline in Worst Pruritus NRS at Weeks 28 and 52

End point title	Change From Baseline in Worst Pruritus NRS at Weeks 28 and 52

End point description:

Participants were asked to rate itch (pruritus) intensity at its worst during the past 24 hours on an 11-point scale from 0 (no itch) to 10 (worst imaginable itch). Change from Baseline was calculated from a rolling weekly average. A negative change from Baseline indicates improvement.
LS means and standard errors were calculated from an ANCOVA with Baseline, treatment and stratrum (Baseline vIGA-AD categories) in the model.

End point type	Secondary

End point timeframe:

Baseline and Weeks 28 and 52

End point values	Placebo / Risankizumab 150 mg	Placebo / Risankizumab 300 mg	Risankizumab 150 mg / Risankizumab 150 mg	Risankizumab 300 mg / Risankizumab 300 mg
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	9[113]	5[114]	50[115]	44[116]
Units: scores on a scale				
least squares mean (standard error)				
Week 28	-2.685 (± 0.9303)	-3.182 (± 1.2347)	-2.474 (± 0.3887)	-2.684 (± 0.4179)
Week 52	-2.668 (± 1.2153)	-4.012 (± 1.3907)	-2.936 (± 0.4567)	-2.454 (± 0.4957)

Notes:

[113] - Intent-to-treat population with available data at each time point; N=5 at Week 52

[114] - Intent-to-treat population with available data at each time point; N=4 at Week 52

[115] - Intent-to-treat population with available data at each time point; N=36 at Week 52

[116] - Intent-to-treat population with available data at each time point; N=32 at Week 52

Statistical analyses

No statistical analyses for this end point

Secondary: Percentage of Participants Who Achieved a Reduction of ≥ 4 Points in Worst Pruritus NRS From Baseline to Week 28 and Week 52

End point title	Percentage of Participants Who Achieved a Reduction of ≥ 4 Points in Worst Pruritus NRS From Baseline to Week 28 and Week 52

End point description:

Participants were asked to rate itch (pruritus) intensity at its worst during the past 24 hours on an 11-point scale from 0 (no itch) to 10 (worst imaginable itch).

End point type	Secondary

End point timeframe:

Baseline and Weeks 28 and 52

End point values	Placebo / Risankizumab 150 mg	Placebo / Risankizumab 300 mg	Risankizumab 150 mg / Risankizumab 150 mg	Risankizumab 300 mg / Risankizumab 300 mg
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	9[117]	5[118]	48[119]	43[120]
Units: percentage of participants				
number (confidence interval 95%)				
Week 28	22.2 (0.0 to 49.4)	20.0 (0.0 to 55.1)	31.3 (18.1 to 44.4)	39.5 (24.9 to 54.1)
Week 52	20.0 (0.0 to 55.1)	25.0 (0.0 to 67.4)	38.2 (21.9 to 54.6)	28.1 (12.5 to 43.7)

Notes:

[117] - ITT population with Baseline Pruritus NRS ≥ 4 and available data at each time point; N=5 at Week 52

[118] - ITT population with Baseline Pruritus NRS ≥ 4 and available data at each time point; N=4 at Week 52

[119] - ITT population with Baseline Pruritus NRS ≥ 4 and available data at each time point; N=34 at Week 52

[120] - ITT population with Baseline Pruritus NRS ≥ 4 and available data at each time point; N=32 at Week 52

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information

Timeframe for reporting adverse events:

From first dose of study drug up to 20 weeks after last dose.
Period A: 16 weeks for participants who entered Period B or up to 36 weeks for participants who did not enter Period B.
Period B: From Week 16 up to Week 60.

Assessment type	Systematic

Dictionary used

Dictionary name	MedDRA
Dictionary version	23.1

Reporting groups

Reporting group title	Period A: Placebo

Reporting group description:

Participants received placebo by subcutaneous injection at Week 0 and Week 4 in Period A.

Reporting group title	Period A: Risankizumab 150 mg

Reporting group description:

Participants received 150 mg risankizumab SC at Week 0 and Week 4 in Period A.

Reporting group title	Period A: Risankizumab 300 mg

Reporting group description:

Participants received 300 mg risankizumab SC at Week 0 and Week 4 in Period A.

Reporting group title	Period B: Placebo / Risankizumab 150 mg

Reporting group description:

Participants initially randomized to placebo were re-randomized at Week 16 and received 150 mg risankizumab SC at Week 16, Week 28, and Week 40 in Period B.

Reporting group title	Period B: Placebo / Risankizumab 300 mg

Reporting group description:

Participants initially randomized to placebo were re-randomized at Week 16 and received 300 mg risankizumab SC at Week 16, Week 28, and Week 40 in Period B.

Reporting group title	Period B: Risankizumab 150 mg / Risankizumab 150 mg

Reporting group description:

Participants initially randomized to 150 mg risankizumab in Period A continued to receive 150 mg risankizumab SC at Week 16, Week 28, and Week 40 in Period B.

Reporting group title	Period B: Risankizumab 300 mg / Risankizumab 300 mg

Reporting group description:

Participants initially randomized to 300 mg risankizumab in Period A continued to receive 300 mg risankizumab SC at Week 16, Week 28, and Week 40 in Period B.

Serious adverse events	Period A: Placebo	Period A: Risankizumab 150 mg	Period A: Risankizumab 300 mg
Total subjects affected by serious adverse events			
subjects affected / exposed	3 / 34 (8.82%)	0 / 69 (0.00%)	0 / 69 (0.00%)
number of deaths (all causes)	1	0	0
number of deaths resulting from adverse events	1	0	0
Neoplasms benign, malignant and unspecified (incl cysts and polyps)			
CERVIX CARCINOMA STAGE I			

subjects affected / exposed	1 / 34 (2.94%)	0 / 69 (0.00%)	0 / 69 (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
Injury, poisoning and procedural complications			
FRACTURED COCCYX			
subjects affected / exposed	0 / 34 (0.00%)	0 / 69 (0.00%)	0 / 69 (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
SPINAL FRACTURE			
subjects affected / exposed	0 / 34 (0.00%)	0 / 69 (0.00%)	0 / 69 (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
Cardiac disorders			
ARRHYTHMIA			
subjects affected / exposed	0 / 34 (0.00%)	0 / 69 (0.00%)	0 / 69 (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
Eye disorders			
AMAUROSIS FUGAX			
subjects affected / exposed	0 / 34 (0.00%)	0 / 69 (0.00%)	0 / 69 (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
Skin and subcutaneous tissue disorders			
DERMATITIS ATOPIC			
subjects affected / exposed	1 / 34 (2.94%)	0 / 69 (0.00%)	0 / 69 (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
Musculoskeletal and connective tissue disorders			
OSTEOARTHRITIS			
subjects affected / exposed	0 / 34 (0.00%)	0 / 69 (0.00%)	0 / 69 (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			
CELLULITIS			

subjects affected / exposed	0 / 34 (0.00%)	0 / 69 (0.00%)	0 / 69 (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
COVID-19			
subjects affected / exposed	1 / 34 (2.94%)	0 / 69 (0.00%)	0 / 69 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 1	0 / 0	0 / 0

Serious adverse events	Period B: Placebo / Risankizumab 150 mg	Period B: Placebo / Risankizumab 300 mg	Period B: Risankizumab 150 mg / Risankizumab 150 mg
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 13 (0.00%)	0 / 11 (0.00%)	2 / 61 (3.28%)
number of deaths (all causes)	0	0	0
number of deaths resulting from adverse events	0	0	0
Neoplasms benign, malignant and unspecified (incl cysts and polyps)			
CERVIX CARCINOMA STAGE I			
subjects affected / exposed	0 / 13 (0.00%)	0 / 11 (0.00%)	0 / 61 (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
Injury, poisoning and procedural complications			
FRACTURED COCCYX			
subjects affected / exposed	0 / 13 (0.00%)	0 / 11 (0.00%)	0 / 61 (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
SPINAL FRACTURE			
subjects affected / exposed	0 / 13 (0.00%)	0 / 11 (0.00%)	0 / 61 (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
Cardiac disorders			
ARRHYTHMIA			
subjects affected / exposed	0 / 13 (0.00%)	0 / 11 (0.00%)	1 / 61 (1.64%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Eye disorders			

AMAUROSIS FUGAX			
subjects affected / exposed	0 / 13 (0.00%)	0 / 11 (0.00%)	0 / 61 (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
Skin and subcutaneous tissue disorders			
DERMATITIS ATOPIC			
subjects affected / exposed	0 / 13 (0.00%)	0 / 11 (0.00%)	0 / 61 (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
Musculoskeletal and connective tissue disorders			
OSTEOARTHRITIS			
subjects affected / exposed	0 / 13 (0.00%)	0 / 11 (0.00%)	0 / 61 (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			
CELLULITIS			
subjects affected / exposed	0 / 13 (0.00%)	0 / 11 (0.00%)	1 / 61 (1.64%)
occurrences causally related to treatment / all	0 / 0	0 / 0	1 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
COVID-19			
subjects affected / exposed	0 / 13 (0.00%)	0 / 11 (0.00%)	0 / 61 (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	Period B: Risankizumab 300 mg / Risankizumab 300 mg		
Total subjects affected by serious adverse events			
subjects affected / exposed	3 / 57 (5.26%)		
number of deaths (all causes)	0		
number of deaths resulting from adverse events	0		
Neoplasms benign, malignant and unspecified (incl cysts and polyps)			
CERVIX CARCINOMA STAGE I			
subjects affected / exposed	0 / 57 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		

Injury, poisoning and procedural complications			
FRACTURED COCCYX			
subjects affected / exposed	1 / 57 (1.75%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
SPINAL FRACTURE			
subjects affected / exposed	1 / 57 (1.75%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Cardiac disorders			
ARRHYTHMIA			
subjects affected / exposed	0 / 57 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Eye disorders			
AMAUROSIS FUGAX			
subjects affected / exposed	1 / 57 (1.75%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Skin and subcutaneous tissue disorders			
DERMATITIS ATOPIC			
subjects affected / exposed	0 / 57 (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	1 / 57 (1.75%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Infections and infestations			
CELLULITIS			
subjects affected / exposed	1 / 57 (1.75%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
COVID-19			

subjects affected / exposed	0 / 57 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		

Frequency threshold for reporting non-serious adverse events: 5 %

Non-serious adverse events	Period A: Placebo	Period A: Risankizumab 150 mg	Period A: Risankizumab 300 mg
Total subjects affected by non-serious adverse events			
subjects affected / exposed	17 / 34 (50.00%)	25 / 69 (36.23%)	25 / 69 (36.23%)
Investigations			
BLOOD GLUCOSE INCREASED			
subjects affected / exposed	0 / 34 (0.00%)	0 / 69 (0.00%)	0 / 69 (0.00%)
occurrences (all)	0	0	0
BLOOD THYROID STIMULATING HORMONE INCREASED			
subjects affected / exposed	0 / 34 (0.00%)	0 / 69 (0.00%)	0 / 69 (0.00%)
occurrences (all)	0	0	0
Vascular disorders			
HYPERTENSION			
subjects affected / exposed	3 / 34 (8.82%)	0 / 69 (0.00%)	3 / 69 (4.35%)
occurrences (all)	3	0	3
Cardiac disorders			
BUNDLE BRANCH BLOCK RIGHT			
subjects affected / exposed	0 / 34 (0.00%)	0 / 69 (0.00%)	0 / 69 (0.00%)
occurrences (all)	0	0	0
Surgical and medical procedures			
WISDOM TEETH REMOVAL			
subjects affected / exposed	0 / 34 (0.00%)	0 / 69 (0.00%)	0 / 69 (0.00%)
occurrences (all)	0	0	0
Nervous system disorders			
DIZZINESS POSTURAL			
subjects affected / exposed	0 / 34 (0.00%)	0 / 69 (0.00%)	0 / 69 (0.00%)
occurrences (all)	0	0	0
Blood and lymphatic system disorders			
LEUKOPENIA			
subjects affected / exposed	0 / 34 (0.00%)	1 / 69 (1.45%)	0 / 69 (0.00%)
occurrences (all)	0	1	0

General disorders and administration site conditions			
OEDEMA PERIPHERAL			
subjects affected / exposed	2 / 34 (5.88%)	0 / 69 (0.00%)	0 / 69 (0.00%)
occurrences (all)	2	0	0
Gastrointestinal disorders			
DENTAL CARIES			
subjects affected / exposed	0 / 34 (0.00%)	1 / 69 (1.45%)	0 / 69 (0.00%)
occurrences (all)	0	1	0
TOOTHACHE			
subjects affected / exposed	0 / 34 (0.00%)	0 / 69 (0.00%)	1 / 69 (1.45%)
occurrences (all)	0	0	1
Reproductive system and breast disorders			
AMENORRHOEA			
subjects affected / exposed	0 / 34 (0.00%)	0 / 69 (0.00%)	0 / 69 (0.00%)
occurrences (all)	0	0	0
Skin and subcutaneous tissue disorders			
ACNE			
subjects affected / exposed	0 / 34 (0.00%)	0 / 69 (0.00%)	0 / 69 (0.00%)
occurrences (all)	0	0	0
DERMATITIS ATOPIC			
subjects affected / exposed	7 / 34 (20.59%)	19 / 69 (27.54%)	16 / 69 (23.19%)
occurrences (all)	7	19	16
HYPERTROPHIC SCAR			
subjects affected / exposed	0 / 34 (0.00%)	0 / 69 (0.00%)	0 / 69 (0.00%)
occurrences (all)	0	0	0
PRURITUS			
subjects affected / exposed	2 / 34 (5.88%)	2 / 69 (2.90%)	5 / 69 (7.25%)
occurrences (all)	2	2	5
URTICARIA			
subjects affected / exposed	0 / 34 (0.00%)	0 / 69 (0.00%)	2 / 69 (2.90%)
occurrences (all)	0	0	2
Infections and infestations			
NASOPHARYNGITIS			
subjects affected / exposed	0 / 34 (0.00%)	4 / 69 (5.80%)	4 / 69 (5.80%)
occurrences (all)	0	6	4
SKIN INFECTION			

subjects affected / exposed	2 / 34 (5.88%)	1 / 69 (1.45%)	1 / 69 (1.45%)
occurrences (all)	2	1	1
TONSILLITIS			
subjects affected / exposed	0 / 34 (0.00%)	0 / 69 (0.00%)	0 / 69 (0.00%)
occurrences (all)	0	0	0
TOOTH INFECTION			
subjects affected / exposed	0 / 34 (0.00%)	0 / 69 (0.00%)	0 / 69 (0.00%)
occurrences (all)	0	0	0
UPPER RESPIRATORY TRACT INFECTION			
subjects affected / exposed	2 / 34 (5.88%)	1 / 69 (1.45%)	3 / 69 (4.35%)
occurrences (all)	2	1	3
VIRAL UPPER RESPIRATORY TRACT INFECTION			
subjects affected / exposed	2 / 34 (5.88%)	0 / 69 (0.00%)	0 / 69 (0.00%)
occurrences (all)	2	0	0

Non-serious adverse events	Period B: Placebo / Risankizumab 150 mg	Period B: Placebo / Risankizumab 300 mg	Period B: Risankizumab 150 mg / Risankizumab 150 mg
Total subjects affected by non-serious adverse events			
subjects affected / exposed	6 / 13 (46.15%)	5 / 11 (45.45%)	13 / 61 (21.31%)
Investigations			
BLOOD GLUCOSE INCREASED			
subjects affected / exposed	1 / 13 (7.69%)	0 / 11 (0.00%)	1 / 61 (1.64%)
occurrences (all)	1	0	1
BLOOD THYROID STIMULATING HORMONE INCREASED			
subjects affected / exposed	0 / 13 (0.00%)	1 / 11 (9.09%)	0 / 61 (0.00%)
occurrences (all)	0	1	0
Vascular disorders			
HYPERTENSION			
subjects affected / exposed	0 / 13 (0.00%)	0 / 11 (0.00%)	1 / 61 (1.64%)
occurrences (all)	0	0	1
Cardiac disorders			
BUNDLE BRANCH BLOCK RIGHT			
subjects affected / exposed	0 / 13 (0.00%)	1 / 11 (9.09%)	0 / 61 (0.00%)
occurrences (all)	0	1	0
Surgical and medical procedures			

WISDOM TEETH REMOVAL			
subjects affected / exposed	1 / 13 (7.69%)	0 / 11 (0.00%)	0 / 61 (0.00%)
occurrences (all)	1	0	0
Nervous system disorders			
DIZZINESS POSTURAL			
subjects affected / exposed	0 / 13 (0.00%)	1 / 11 (9.09%)	0 / 61 (0.00%)
occurrences (all)	0	1	0
Blood and lymphatic system disorders			
LEUKOPENIA			
subjects affected / exposed	0 / 13 (0.00%)	1 / 11 (9.09%)	1 / 61 (1.64%)
occurrences (all)	0	1	1
General disorders and administration site conditions			
OEDEMA PERIPHERAL			
subjects affected / exposed	0 / 13 (0.00%)	0 / 11 (0.00%)	0 / 61 (0.00%)
occurrences (all)	0	0	0
Gastrointestinal disorders			
DENTAL CARIES			
subjects affected / exposed	0 / 13 (0.00%)	1 / 11 (9.09%)	0 / 61 (0.00%)
occurrences (all)	0	1	0
TOOTHACHE			
subjects affected / exposed	0 / 13 (0.00%)	2 / 11 (18.18%)	0 / 61 (0.00%)
occurrences (all)	0	2	0
Reproductive system and breast disorders			
AMENORRHOEA			
subjects affected / exposed	0 / 13 (0.00%)	1 / 11 (9.09%)	0 / 61 (0.00%)
occurrences (all)	0	1	0
Skin and subcutaneous tissue disorders			
ACNE			
subjects affected / exposed	1 / 13 (7.69%)	0 / 11 (0.00%)	0 / 61 (0.00%)
occurrences (all)	1	0	0
DERMATITIS ATOPIC			
subjects affected / exposed	2 / 13 (15.38%)	1 / 11 (9.09%)	7 / 61 (11.48%)
occurrences (all)	2	1	7
HYPERTROPHIC SCAR			
subjects affected / exposed	0 / 13 (0.00%)	1 / 11 (9.09%)	0 / 61 (0.00%)
occurrences (all)	0	1	0
PRURITUS			

subjects affected / exposed	0 / 13 (0.00%)	0 / 11 (0.00%)	2 / 61 (3.28%)
occurrences (all)	0	0	2
URTICARIA			
subjects affected / exposed	1 / 13 (7.69%)	1 / 11 (9.09%)	0 / 61 (0.00%)
occurrences (all)	1	1	0
Infections and infestations			
NASOPHARYNGITIS			
subjects affected / exposed	0 / 13 (0.00%)	0 / 11 (0.00%)	4 / 61 (6.56%)
occurrences (all)	0	0	4
SKIN INFECTION			
subjects affected / exposed	0 / 13 (0.00%)	0 / 11 (0.00%)	0 / 61 (0.00%)
occurrences (all)	0	0	0
TONSILLITIS			
subjects affected / exposed	1 / 13 (7.69%)	0 / 11 (0.00%)	0 / 61 (0.00%)
occurrences (all)	1	0	0
TOOTH INFECTION			
subjects affected / exposed	0 / 13 (0.00%)	1 / 11 (9.09%)	0 / 61 (0.00%)
occurrences (all)	0	1	0
UPPER RESPIRATORY TRACT INFECTION			
subjects affected / exposed	0 / 13 (0.00%)	0 / 11 (0.00%)	1 / 61 (1.64%)
occurrences (all)	0	0	1
VIRAL UPPER RESPIRATORY TRACT INFECTION			
subjects affected / exposed	0 / 13 (0.00%)	0 / 11 (0.00%)	0 / 61 (0.00%)
occurrences (all)	0	0	0

Non-serious adverse events	Period B: Risankizumab 300 mg / Risankizumab 300 mg		
Total subjects affected by non-serious adverse events			
subjects affected / exposed	10 / 57 (17.54%)		
Investigations			
BLOOD GLUCOSE INCREASED			
subjects affected / exposed	0 / 57 (0.00%)		
occurrences (all)	0		
BLOOD THYROID STIMULATING HORMONE INCREASED			

subjects affected / exposed occurrences (all)	0 / 57 (0.00%) 0		
Vascular disorders HYPERTENSION subjects affected / exposed occurrences (all)	 1 / 57 (1.75%) 1		
Cardiac disorders BUNDLE BRANCH BLOCK RIGHT subjects affected / exposed occurrences (all)	 0 / 57 (0.00%) 0		
Surgical and medical procedures WISDOM TEETH REMOVAL subjects affected / exposed occurrences (all)	 0 / 57 (0.00%) 0		
Nervous system disorders DIZZINESS POSTURAL subjects affected / exposed occurrences (all)	 0 / 57 (0.00%) 0		
Blood and lymphatic system disorders LEUKOPENIA subjects affected / exposed occurrences (all)	 0 / 57 (0.00%) 0		
General disorders and administration site conditions OEDEMA PERIPHERAL subjects affected / exposed occurrences (all)	 0 / 57 (0.00%) 0		
Gastrointestinal disorders DENTAL CARIES subjects affected / exposed occurrences (all) TOOTHACHE subjects affected / exposed occurrences (all)	 0 / 57 (0.00%) 0 0 / 57 (0.00%) 0		
Reproductive system and breast disorders AMENORRHOEA subjects affected / exposed occurrences (all)	 0 / 57 (0.00%) 0		

Skin and subcutaneous tissue disorders			
ACNE			
subjects affected / exposed	0 / 57 (0.00%)		
occurrences (all)	0		
DERMATITIS ATOPIC			
subjects affected / exposed	5 / 57 (8.77%)		
occurrences (all)	5		
HYPERTROPHIC SCAR			
subjects affected / exposed	0 / 57 (0.00%)		
occurrences (all)	0		
PRURITUS			
subjects affected / exposed	0 / 57 (0.00%)		
occurrences (all)	0		
URTICARIA			
subjects affected / exposed	0 / 57 (0.00%)		
occurrences (all)	0		
Infections and infestations			
NASOPHARYNGITIS			
subjects affected / exposed	3 / 57 (5.26%)		
occurrences (all)	4		
SKIN INFECTION			
subjects affected / exposed	0 / 57 (0.00%)		
occurrences (all)	0		
TONSILLITIS			
subjects affected / exposed	0 / 57 (0.00%)		
occurrences (all)	0		
TOOTH INFECTION			
subjects affected / exposed	1 / 57 (1.75%)		
occurrences (all)	1		
UPPER RESPIRATORY TRACT INFECTION			
subjects affected / exposed	1 / 57 (1.75%)		
occurrences (all)	1		
VIRAL UPPER RESPIRATORY TRACT INFECTION			
subjects affected / exposed	0 / 57 (0.00%)		
occurrences (all)	0		

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
04 June 2018	The purpose of this Amendment was to: - Modify eligibility criterion #6 to add specific AD diagnosis criteria. - Add new eligibility criterion (new #10) with minimum daily worst pruritus criterion. - Update Areas of Safety Interest table to correct administrative inconsistencies. - Clarify requirements for obtaining samples in the event of a suspected systemic hypersensitivity reaction. - Clarify wording regarding post-dosing hypersensitivity monitoring.
13 February 2019	The purpose of this Amendment was to: - Update Protocol to align language around requiring a confirmed diagnosis of AD by a dermatologist for participation in the study with the eligibility criteria. - Update Background and Rationale to remove asthma from the list of indications that risankizumab is being developed. - Update data reported across Phase 3 psoriasis clinical studies in Benefits and Risks to Subjects. - Update Additional Endpoints to add detail around when variables will be analyzed and added proportion of subjects achieving EASI 100 and proportion of subjects achieving vIGA-AD of "0" with a reduction from Baseline of ≥ 2 points to the list of endpoints. - Update Overall Study Design and Plan to add detail to clarify the process around the number of subjects allowed to be screened, randomized, and enrolled in the study. - Update Eligibility Criterion 1 to clarify the process for obtaining adolescent subject assent and the need to consent in this study for adolescent subjects who become of legal age during the study. - Update Eligibility Criteria to add "and functionally able to read and understand study questionnaires" to eligibility criterion 2. - Update Withdrawal of Subjects and Discontinuation of Study regarding subject discontinuation criteria due to the occurrence of hepatic test abnormalities. - Update Complaints and Adverse Events to add detail around SAE reporting, add detail to definitions of AE severity, asthma-related AE reporting, and update the wording around risks. - Update Operations Manual to add the following: -- Hepatitis B virus (HBV) DNA polymerase chain reaction (PCR) (if locally required) every 12 weeks. --adult waist circumference measurement at the Week 52 visit. -- text around the available supplemental asthma CRF. --detail that study drug administration instruction for risankizumab pre-filled syringes will be provided for use by site staff. --Additional clarifications and alignments to the Protocol.
29 July 2019	The purpose of this Amendment is to update the following: - Remove all mention of actigraphy from the Protocol since the study will no longer include actigraphy assessments. - Add Safety Grading Definitions to align with the updated risankizumab protocol standards. - Add local label guidance on contraception and live vaccination language to align with the updated risankizumab protocol standards. - Remove mention of the Statistical Analysis Plan – Supplemental (SAP-S) since complete and specific details of the statistical analysis will be added to the SAP and the SAP-S is no longer needed.

13 October 2020	The purpose of this version is to incorporate necessary protocol modifications due to the COVID-19 pandemic as follows: - Included information on the re-evaluation of the benefit and risk to subjects participating in the study. There is no anticipated additional risk to subjects. - Added instructions to refer to Operations Manual for necessary changes to activities or procedures. - Provided instructions in the event of temporary study drug interruption/halt due to COVID-19 and that in the event the subject cannot complete an onsite visit, administration of study drug at the subject's house is to be performed by study staff if feasible and permitted by local regulations. - Clarified that protocol deviations may include modifications due to COVID-19. Added NRI-C to incorporate handling of missing data due to COVID-19 as the primary approach and NRI-NC as sensitivity analysis. - Added that remote monitoring may be employed as needed. - Added reference to Operations Manual for allowed modification. - Operations Manual updated to include details on how to perform specific activities/procedures that may be impacted by changes in global/local regulations due to the pandemic.

Notes:

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

None reported