Clinical trial results:
A randomized, double-blind, multi-center, parallel-group, placebo-controlled dose-ranging study to assess the efficacy and safety of nemolizumab (CD14152) in moderate-to-severe atopic dermatitis subjects with severe pruritus receiving topical corticosteroids

Summary

EudraCT number	2016-005025-37
Trial protocol	DE FR PL
Global end of trial date	21 September 2018

Results information

Result version number	v1 (current)
This version publication date	19 October 2019
First version publication date	19 October 2019

Trial information

Trial identification

Sponsor protocol code	RD.03.SRE.114322

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT03100344
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	GALDERMA R&D, SNC
Sponsor organisation address	Les Templiers, 2400 route des Colles, Biot, France, 06410
Public contact	RA CTA Coordinator, GALDERMA R&D, SNC, +33 (0)4 93 95 70 85, cta.coordinator@galderma.com
Scientific contact	Galderma Medical Expert, GALDERMA R&D, SNC, +33 (0)4 93 95 70 85, Zarif.Jabbar-Lopez@galderma.com

Notes:

Paediatric regulatory details

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

Notes:

Results analysis stage

Analysis stage	Final
Date of interim/final analysis	19 October 2018
Is this the analysis of the primary completion data?	No

Global end of trial reached?	Yes
Global end of trial date	21 September 2018
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

The primary objective is to assess the efficacy of several subcutaneous doses of nemolizumab in moderate-to-severe AD subjects with severe pruritus receiving topical corticosteroid who were not adequately controlled with topical treatments.

Protection of trial subjects:

The study was conducted according to the protocol and subsequent amendments. At each study site, the protocol and informed consent form (ICF) for this study were reviewed and approved by a duly constituted Institutional Review Board (IRB) or Independent Ethics Committee (IEC) before subjects were screened for entry. This study was conducted in accordance with Good Clinical Practice (GCP) as required by the International Conference for Harmonisation (ICH) guidelines and in accordance with country-specific laws and regulations governing clinical studies of investigational products. Subjects were provided with both verbal and written information regarding the study, including its objectives, possible benefits and risks, and its consequences. Sufficient time was allowed for the subjects to read the study information and ask questions.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	14 June 2017
Long term follow-up planned	No
Independent data monitoring committee (IDMC) involvement?	No

Notes:

Population of trial subjects

Subjects enrolled per country

Country: Number of subjects enrolled	Germany: 63
Country: Number of subjects enrolled	Australia: 9
Country: Number of subjects enrolled	Canada: 36
Country: Number of subjects enrolled	France: 15
Country: Number of subjects enrolled	Poland: 34
Country: Number of subjects enrolled	United States: 69
Worldwide total number of subjects	226
EEA total number of subjects	112

Notes:

Subjects enrolled per age group

In utero	0
Preterm newborn - gestational age < 37	0

wk	
Newborns (0-27 days)	0
Infants and toddlers (28 days-23 months)	0
Children (2-11 years)	0
Adolescents (12-17 years)	0
Adults (18-64 years)	209
From 65 to 84 years	17
85 years and over	0

Subject disposition

Recruitment

Recruitment details:

This study was conducted at 57 investigational sites in Australia, Canada, Germany, France, Poland and the United States.

Pre-assignment

Screening details:

In this study, 226 participants with moderate-to-severe atopic dermatitis (AD) were randomized across the 4 treatment groups after a 2 to 4-week run-in period. All participants underwent inclusion exclusion criteria assessment and all eligible participants signed the informed consent before undergoing any study related procedures.

Period 1

Period 1 title	Overall Study (overall period)
Is this the baseline period?	Yes
Allocation method	Randomised - controlled
Blinding used	Double blind
Roles blinded	Subject, Investigator

Blinding implementation details:

This was a double-blind clinical study; Investigator's, site staff, and subjects did not know which treatment they were receiving. The study was blinded to the contract research organization (CRO) and Sponsor study team until after final database lock (once all subjects completed safety follow-up at Week 32) and subsequent unblinding.

Arms

Are arms mutually exclusive?	Yes
Arm title	Placebo

Arm description:

Randomized participants received Nemolizumab placebo subcutaneous injection every 4 weeks during 24 week treatment period (last injection at Week 20). As background therapy a medium potency topical corticosteroid (TCS) (mometasone furoate 0.1% cream or hydrocortisone butyrate 0.1% cream) was used for the body and a low potency TCS (hydrocortisone acetate 0.05-1% cream or desonide 0.05% cream) was used for areas where medium potency TCS are considered unsafe.

Arm type	Placebo
Investigational medicinal product name	Placebo
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Powder and solvent for solution for injection
Routes of administration	Subcutaneous use

Dosage and administration details:

Each participant was randomized to receive subcutaneous injections of placebo every 4 weeks (Q4W) (Weeks 4, 8, 12, 16 and 20).

Arm title	Nemolizumab (10 mg)

Arm description:

Randomized participants received Nemolizumab subcutaneous injection every 4 weeks during 24 week treatment period (last injection at Week 20) with a loading dose of 20mg. As background therapy a medium potency TCS (mometasone furoate 0.1% cream or hydrocortisone butyrate 0.1% cream) was used for the body and a low potency TCS (hydrocortisone acetate 0.05-1% cream or desonide 0.05% cream) was used for areas where medium potency TCS were considered unsafe.

Arm type	Experimental

Investigational medicinal product name	Nemolizumab
Investigational medicinal product code	CD14152
Other name	
Pharmaceutical forms	Powder and solvent for suspension for injection
Routes of administration	Subcutaneous use

Dosage and administration details:

Randomized participants received Nemolizumab subcutaneous injection 10 mg every 4 weeks during 24 week treatment period (last injection at Week 20)

Arm title	Nemolizumab (30 mg)

Arm description:

Randomized participants received Nemolizumab subcutaneous injection every 4 weeks during 24 week treatment period (last injection at Week 20) with a loading dose of 60mg. As background therapy a medium potency TCS (mometasone furoate 0.1% cream or hydrocortisone butyrate 0.1% cream) was used for the body and a low potency TCS (hydrocortisone acetate 0.05-1% cream or desonide 0.05% cream) was used for areas where medium potency TCS are considered unsafe.

Arm type	Experimental
Investigational medicinal product name	Nemolizumab
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Powder and solution for solution for injection
Routes of administration	Subcutaneous use

Dosage and administration details:

Randomized participants received Nemolizumab subcutaneous injection 30 mg every 4 weeks during 24 week treatment period (last injection at Week 20)

Arm title	Nemolizumab (90 mg)

Arm description:

Randomized participants received Nemolizumab subcutaneous injection every 4 weeks during 24 week treatment period (last injection at Week 20). As background therapy a medium potency TCS (mometasone furoate 0.1% cream or hydrocortisone butyrate 0.1% cream) was used for the body and a low potency TCS (hydrocortisone acetate 0.05-1% cream or desonide 0.05% cream) was used for areas where medium potency TCS are considered unsafe.

Arm type	Experimental
Investigational medicinal product name	Nemolizumab
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Powder and solvent for solution for injection
Routes of administration	Subcutaneous use

Dosage and administration details:

Randomized participants received Nemolizumab subcutaneous injection 90 mg every 4 weeks during 24 week treatment period (last injection at Week 20)

Number of subjects in period 1	Placebo	Nemolizumab (10 mg)	Nemolizumab (30 mg)
Started	57	55	57
Completed	43	44	50
Not completed	14	11	7
Consent withdrawn by subject	10	7	4
Adverse event, non-fatal	-	3	2
Lost to follow-up	1	1	1
Lack of efficacy	2	-	-

Protocol deviation	1	-	-

Number of subjects in period 1	Nemolizumab (90 mg)
Started	57
Completed	45
Not completed	12
Consent withdrawn by subject	8
Adverse event, non-fatal	3
Lost to follow-up	1
Lack of efficacy	-
Protocol deviation	-

Baseline characteristics

Reporting groups	
Reporting group title	Placebo
Reporting group description:	
Randomized participants received Nemolizumab placebo subcutaneous injection every 4 weeks during 24 week treatment period (last injection at Week 20). As background therapy a medium potency topical corticosteroid (TCS) (mometasone furoate 0.1% cream or hydrocortisone butyrate 0.1% cream) was used for the body and a low potency TCS (hydrocortisone acetate 0.05-1% cream or desonide 0.05% cream) was used for areas where medium potency TCS are considered unsafe.	
Reporting group title	Nemolizumab (10 mg)
Reporting group description:	
Randomized participants received Nemolizumab subcutaneous injection every 4 weeks during 24 week treatment period (last injection at Week 20) with a loading dose of 20mg. As background therapy a medium potency TCS (mometasone furoate 0.1% cream or hydrocortisone butyrate 0.1% cream) was used for the body and a low potency TCS (hydrocortisone acetate 0.05-1% cream or desonide 0.05% cream) was used for areas where medium potency TCS were considered unsafe.	
Reporting group title	Nemolizumab (30 mg)
Reporting group description:	
Randomized participants received Nemolizumab subcutaneous injection every 4 weeks during 24 week treatment period (last injection at Week 20) with a loading dose of 60mg. As background therapy a medium potency TCS (mometasone furoate 0.1% cream or hydrocortisone butyrate 0.1% cream) was used for the body and a low potency TCS (hydrocortisone acetate 0.05-1% cream or desonide 0.05% cream) was used for areas where medium potency TCS are considered unsafe.	
Reporting group title	Nemolizumab (90 mg)
Reporting group description:	
Randomized participants received Nemolizumab subcutaneous injection every 4 weeks during 24 week treatment period (last injection at Week 20). As background therapy a medium potency TCS (mometasone furoate 0.1% cream or hydrocortisone butyrate 0.1% cream) was used for the body and a low potency TCS (hydrocortisone acetate 0.05-1% cream or desonide 0.05% cream) was used for areas where medium potency TCS are considered unsafe.	

Reporting group values	Placebo	Nemolizumab (10 mg)	Nemolizumab (30 mg)
Number of subjects	57	55	57
Age categorical Units: Subjects			
In utero	0	0	0
Preterm newborn infants (gestational age < 37 wks)	0	0	0
Newborns (0-27 days)	0	0	0
Infants and toddlers (28 days-23 months)	0	0	0
Children (2-11 years)	0	0	0
Adolescents (12-17 years)	0	0	0
Adults (18-64 years)	54	53	51
From 65-84 years	3	2	6
85 years and over	0	0	0
Age continuous Units: years			
arithmetic mean	40.9	35.3	40.2
standard deviation	± 15.01	± 14.83	± 16.64
Gender categorical Units: Subjects			
Female	26	26	28

Male	31	29	29

Race (NIH/OMB) Units: Subjects			
American Indian or Alaska Native	0	1	0
Asian	4	11	6
Native Hawaiian or Other Pacific Islander	0	0	0
Black or African American	8	3	10
White	45	38	40
More than one race	0	0	0
Unknown or Not Reported	0	2	1
Height Units: Centimeter			
arithmetic mean	170.0	169.7	171.5
standard deviation	± 10.28	± 8.98	± 8.55
Weight Units: kilogram(s)			
arithmetic mean	80.58	73.72	76.90
standard deviation	± 18.835	± 14.629	± 18.613
Body mass index Units: kilogram(s)/square meter			
arithmetic mean	27.79	25.54	26.18
standard deviation	± 5.638	± 4.429	± 6.370

Reporting group values	Nemolizumab (90 mg)	Total	
Number of subjects	57	226	
Age categorical Units: Subjects			
In utero	0	0	
Preterm newborn infants (gestational age < 37 wks)	0	0	
Newborns (0-27 days)	0	0	
Infants and toddlers (28 days-23 months)	0	0	
Children (2-11 years)	0	0	
Adolescents (12-17 years)	0	0	
Adults (18-64 years)	51	209	
From 65-84 years	6	17	
85 years and over	0	0	
Age continuous Units: years			
arithmetic mean	40.9		
standard deviation	± 14.95	-	
Gender categorical Units: Subjects			
Female	31	111	
Male	26	115	
Race (NIH/OMB) Units: Subjects			
American Indian or Alaska Native	0	1	

Asian	4	25	
Native Hawaiian or Other Pacific Islander	0	0	
Black or African American	8	29	
White	44	167	
More than one race	0	0	
Unknown or Not Reported	1	4	
Height			
Units: Centimeter			
arithmetic mean	170.6		
standard deviation	± 9.94	-	
Weight			
Units: kilogram(s)			
arithmetic mean	80.49		
standard deviation	± 22.770	-	
Body mass index			
Units: kilogram(s)/square meter			
arithmetic mean	27.51		
standard deviation	± 6.694	-	

End points

End points reporting groups

Reporting group title	Placebo

Reporting group description:

Randomized participants received Nemolizumab placebo subcutaneous injection every 4 weeks during 24 week treatment period (last injection at Week 20). As background therapy a medium potency topical corticosteroid (TCS) (mometasone furoate 0.1% cream or hydrocortisone butyrate 0.1% cream) was used for the body and a low potency TCS (hydrocortisone acetate 0.05-1% cream or desonide 0.05% cream) was used for areas where medium potency TCS are considered unsafe.

Reporting group title	Nemolizumab (10 mg)

Reporting group description:

Randomized participants received Nemolizumab subcutaneous injection every 4 weeks during 24 week treatment period (last injection at Week 20) with a loading dose of 20mg. As background therapy a medium potency TCS (mometasone furoate 0.1% cream or hydrocortisone butyrate 0.1% cream) was used for the body and a low potency TCS (hydrocortisone acetate 0.05-1% cream or desonide 0.05% cream) was used for areas where medium potency TCS were considered unsafe.

Reporting group title	Nemolizumab (30 mg)

Reporting group description:

Randomized participants received Nemolizumab subcutaneous injection every 4 weeks during 24 week treatment period (last injection at Week 20) with a loading dose of 60mg. As background therapy a medium potency TCS (mometasone furoate 0.1% cream or hydrocortisone butyrate 0.1% cream) was used for the body and a low potency TCS (hydrocortisone acetate 0.05-1% cream or desonide 0.05% cream) was used for areas where medium potency TCS are considered unsafe.

Reporting group title	Nemolizumab (90 mg)

Reporting group description:

Randomized participants received Nemolizumab subcutaneous injection every 4 weeks during 24 week treatment period (last injection at Week 20). As background therapy a medium potency TCS (mometasone furoate 0.1% cream or hydrocortisone butyrate 0.1% cream) was used for the body and a low potency TCS (hydrocortisone acetate 0.05-1% cream or desonide 0.05% cream) was used for areas where medium potency TCS are considered unsafe.

Subject analysis set title	Intent-to-treat (ITT) population
Subject analysis set type	Intention-to-treat

Subject analysis set description:

Intent-to-treat (ITT) population included all randomized participants. The ITT population was analyzed according
to the treatment groups or stratum assigned at randomization.

Primary: Percent Change From Baseline in Eczema Area and Severity Index (EASI) at Week 24

End point title	Percent Change From Baseline in Eczema Area and Severity Index (EASI) at Week 24

End point description:

EASI is a composite score ranging from 0 to 72.The severity of erythema, induration/papulation, excoriation, and lichenification was assessed on a scale of 0 (absent) to 3 (severe) for each of the 4 body areas: head/neck, trunk, upper limbs, and lower limbs, with half points allowed. Higher scores indicate worse outcome.

End point type	Primary

End point timeframe:

From Baseline to Week 24

End point values	Placebo	Nemolizumab (10 mg)	Nemolizumab (30 mg)	Nemolizumab (90 mg)
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	57	55	57	57
Units: Percentage change				
arithmetic mean (standard deviation)	-58.4 (± 31.99)	-72.2 (± 25.96)	-73.4 (± 29.67)	-69.2 (± 31.06)

Statistical analyses

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description: Treatment difference from Placebo	
Comparison groups	Nemolizumab (10 mg) v Placebo
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	other[1]
P-value	= 0.051
Method	Kenward-Rogers
Parameter estimate	mean difference of percentage changes
Point estimate	-13.6
Confidence interval	
level	95 %
sides	2-sided
lower limit	-27.3
upper limit	0

Notes:

[1] - mixed-effect model for repeated measures (MMRM)

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	other[2]
P-value	= 0.016
Method	Kenward Roger
Parameter estimate	mean difference of percentage changes
Point estimate	-16.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	-30.2
upper limit	-3.2

Notes:

[2] - mixed-effect model for repeated measures (MMRM)

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Comparison groups	Placebo v Nemolizumab (90 mg)

Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	other[3]
P-value	= 0.322
Method	Kenward Roger
Parameter estimate	mean difference of percentage changes
Point estimate	-6.8
Confidence interval	
level	95 %
sides	2-sided
lower limit	-20.5
upper limit	6.8

Notes:

[3] - mixed-effect model for repeated measures (MMRM)

Secondary: Number of Participants Achieving Pruritus Categorical Scale (PCS) Success (Defined as a Weekly Prorated Rounded Average PCS ≤1 [None - Mild]) at Week 24

End point title	Number of Participants Achieving Pruritus Categorical Scale (PCS) Success (Defined as a Weekly Prorated Rounded Average PCS ≤1 [None - Mild]) at Week 24

End point description:

The 4-point pruritus categorical scale was provided in their local language for the participants to report the intensity of their pruritus. Overall itching was scored as 0 for absence of pruritus and 3 for severe pruritus (bothersome itching/scratching that disturbs sleep). Higher scores indicate worse outcome.

End point type	Secondary

End point timeframe:

At Week 24

End point values	Placebo	Nemolizumab (10 mg)	Nemolizumab (30 mg)	Nemolizumab (90 mg)
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	57	55	57	57
Units: participants	13	23	31	20

Statistical analyses

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.034
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	18.9

Confidence interval	
level	95 %
sides	2-sided
lower limit	2
upper limit	35.8

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	31.4
Confidence interval	
level	95 %
sides	2-sided
lower limit	14.7
upper limit	48.2

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.154
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	12.2
Confidence interval	
level	95 %
sides	2-sided
lower limit	-4.2
upper limit	28.6

Secondary: Number of Participants With an Improvement of Weekly Average Peak Pruritus Numeric Rating Scale (NRS) ≥4 at Each Timepoint up to Week 24

End point title	Number of Participants With an Improvement of Weekly Average Peak Pruritus Numeric Rating Scale (NRS) ≥4 at Each Timepoint up to Week 24

End point description:

Pruritus NRS is a scale that was used by the participants to report the intensity of their pruritus (itch) during the last 24 hours. For maximum itch intensity: the scores were provided on a scale of 0 to 10, with 0 being 'no itch' and 10 being 'worst itch imaginable'. Higher scores indicate worse outcome.

Note: n=number of subjects in analysis.
Week 1 n: 55, 52, 53, 52; Week 2 n:53, 50,55, 50; Week 4 n: 52, 50, 51,49; Week 8 n: 50, 45, 51, 46; Week 12 n: 41, 41, 48, 42; Week 16 n: 39, 39, 47, 40; Week 20 n: 34,37, 41, 36; Week 24 n: 32, 33, 36, 31.

End point type	Secondary

End point timeframe:

From Week 1 to Week 24

End point values	Placebo	Nemolizumab (10 mg)	Nemolizumab (30 mg)	Nemolizumab (90 mg)
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	57	55	57	57
Units: Participants				
Week 1	3	9	10	6
Week 2	6	19	21	17
Week 4	4	19	27	22
Week 8	11	22	36	26
Week 12	13	26	38	24
Week 16	12	30	39	25
Week 20	13	27	34	27
Week 24	14	25	28	24

Statistical analyses

Statistical analysis title	Placebo vs Nemolizumab (10 mg)

Statistical analysis description:

Week 1

Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.062
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	10.9
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.4
upper limit	22.2

Statistical analysis title	Placebo vs Nemolizumab (30 mg)

Statistical analysis description:

Week 1

Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.042
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	12.2
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.8
upper limit	23.6

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description: Week 1	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.307
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	5.2
Confidence interval	
level	95 %
sides	2-sided
lower limit	-4.7
upper limit	15

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description: Week 2	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.003
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	24

Confidence interval	
level	95 %
sides	2-sided
lower limit	9.3
upper limit	38.7

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description:	
Week 2	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.001
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	26.2
Confidence interval	
level	95 %
sides	2-sided
lower limit	11.4
upper limit	40.9

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description:	
Week 2	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.011
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	19
Confidence interval	
level	95 %
sides	2-sided
lower limit	4.9
upper limit	33.1

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description:	
Week 4	
Comparison groups	Placebo v Nemolizumab (10 mg)

Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	27.6
Confidence interval	
level	95 %
sides	2-sided
lower limit	13.5
upper limit	41.7

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description:	
Week 4	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	40.3
Confidence interval	
level	95 %
sides	2-sided
lower limit	25.7
upper limit	54.8

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description:	
Week 4	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	31.6
Confidence interval	
level	95 %
sides	2-sided
lower limit	17.4
upper limit	45.8

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description: Week 8	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.018
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	20.6
Confidence interval	
level	95 %
sides	2-sided
lower limit	4.2
upper limit	37.1

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description: Week 8	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	43.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	27.6
upper limit	59.9

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description: Week 8	
Comparison groups	Placebo v Nemolizumab (90 mg)

Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.003
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	26.1
Confidence interval	
level	95 %
sides	2-sided
lower limit	9.7
upper limit	42.6

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description:	
Week 12	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.007
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	24.4
Confidence interval	
level	95 %
sides	2-sided
lower limit	7.3
upper limit	41.4

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description:	
Week 12	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	43.6
Confidence interval	
level	95 %
sides	2-sided
lower limit	27.4
upper limit	59.9

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description: Week 12	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.03
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	19.1
Confidence interval	
level	95 %
sides	2-sided
lower limit	2.4
upper limit	35.9

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description: Week 16	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	33.3
Confidence interval	
level	95 %
sides	2-sided
lower limit	16.4
upper limit	50.2

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description: Week 16	
Comparison groups	Placebo v Nemolizumab (30 mg)

Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	47.2
Confidence interval	
level	95 %
sides	2-sided
lower limit	31.2
upper limit	63.2

Statistical analysis title	Placebo, vs Nemolizumab (90 mg)
Statistical analysis description:	
Week 16	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.01
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	22.8
Confidence interval	
level	95 %
sides	2-sided
lower limit	6.1
upper limit	39.4

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description:	
Week 20	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.004
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	26.3
Confidence interval	
level	95 %
sides	2-sided
lower limit	9.2
upper limit	43.5

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description: Week 20	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	36.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	20.1
upper limit	53.3

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description: Week 20	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.007
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	24.5
Confidence interval	
level	95 %
sides	2-sided
lower limit	7.6
upper limit	41.4

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description: Week 24	
Comparison groups	Placebo v Nemolizumab (10 mg)

Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.022
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	20.9
Confidence interval	
level	95 %
sides	2-sided
lower limit	3.6
upper limit	38.1

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description:	
Week 24	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.007
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	24.3
Confidence interval	
level	95 %
sides	2-sided
lower limit	7.4
upper limit	41.3

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description:	
Week 24	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.05
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	17.4
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.4
upper limit	34.4

Secondary: Percent Change From Baseline in SCORing Atopic Dermatitis (SCORAD) at Week 24

End point title	Percent Change From Baseline in SCORing Atopic Dermatitis (SCORAD) at Week 24

End point description:

SCORAD ranges from 0 to 103 and has three components: extent (body surface area [BSA]), signs, and symptoms of AD. The severity of the 6 signs of AD (erythema/darkening, edema/papulation, oozing/crusting, excoriation, lichenification/prurigo and dryness), was assessed, each on a scale ranging from 0 (none) to 3 (severe).The component of extent corresponded to the extent of BSA affected by atopic dermatitis.The BSA involvement of AD was assessed for each part of the body (the possible highest score for each region is: head and neck [9%], anterior trunk [18%], back [18%], upper limbs [18%], lower limbs [36%], and genitals [1%]), and was reported as a percentage of all major body sections combined. Participants were also asked to evaluate their symptoms of pruritus and sleep loss (average for the last 3 days/nights), each evaluated on a Visual analog scale (VAS) from 0 to 10. Higher scores indicate worse outcome.

End point type	Secondary

End point timeframe:

At baseline and at week 24

End point values	Placebo	Nemolizumab (10 mg)	Nemolizumab (30 mg)	Nemolizumab (90 mg)
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	57	55	57	57
Units: percentage change				
arithmetic mean (standard deviation)	-42.6 (± 28.25)	-60.8 (± 25.04)	-62.5 (± 25.37)	-55.9 (± 25.85)

Statistical analyses

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Comparison groups	Nemolizumab (10 mg) v Placebo
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	other[4]
P-value	= 0.017
Method	Kenward Roger]
Parameter estimate	mean difference of percentage changes
Point estimate	-14.4
Confidence interval	
level	95 %
sides	2-sided
lower limit	-26.2
upper limit	-2.7

Notes:

[4] - mixed-effect model for repeated measures

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	other[5]
P-value	< 0.001
Method	Kenward Roger
Parameter estimate	mean difference of percentage changes
Point estimate	-20
Confidence interval	
level	95 %
sides	2-sided
lower limit	-31.6
upper limit	-8.3

Notes:

[5] - mixed-effect model for repeated measures

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	other[6]
P-value	= 0.058
Method	Kenward Roger
Parameter estimate	mean difference of percentage changes
Point estimate	-11.3
Confidence interval	
level	95 %
sides	2-sided
lower limit	-23.1
upper limit	0.4

Notes:

[6] - mixed-effect model for repeated measures

Secondary: Absolute Change From Baseline in SCORing Atopic Dermatitis (SCORAD) at Week 24

End point title	Absolute Change From Baseline in SCORing Atopic Dermatitis (SCORAD) at Week 24

End point description:

SCORAD ranges from 0 to 103 and has three components: extent (body surface area [BSA]), signs, and symptoms of AD. The severity of the 6 signs of AD (erythema/darkening, edema/papulation, oozing/crusting, excoriation, lichenification/prurigo and dryness), was assessed, each on a scale ranging from 0 (none) to 3 (severe).The component of extent corresponded to the extent of BSA affected by atopic dermatitis.The BSA involvement of AD was assessed for each part of the body (the possible highest score for each region is: head and neck [9%], anterior trunk [18%], back [18%], upper limbs [18%], lower limbs [36%], and genitals [1%]), and was reported as a percentage of all major body sections combined. Participants were also asked to evaluate their symptoms of pruritus and sleep loss (average for the last 3 days/nights), each evaluated on a Visual analog scale (VAS) from 0 to 10. Higher scores indicate worse outcome.

End point type	Secondary

End point timeframe:

At week 24

End point values	Placebo	Nemolizumab (10 mg)	Nemolizumab (30 mg)	Nemolizumab (90 mg)
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	57	55	57	57
Units: Units on a scale				
arithmetic mean (standard deviation)	-27.9 (± 19.61)	-40.1 (± 19.19)	-40.6 (± 17.22)	-36.1 (± 16.56)

Statistical analyses

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	other[7]
P-value	= 0.016
Method	Kenward Roger
Parameter estimate	mean difference of absolute changes
Point estimate	-9.6
Confidence interval	
level	95 %
sides	2-sided
lower limit	-17.5
upper limit	-1.8

Notes:

[7] - mixed-effect model for repeated measures

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	other[8]
P-value	= 0.001
Method	Kenward Roger
Parameter estimate	mean difference of absolute changes
Point estimate	-12.8
Confidence interval	
level	95 %
sides	2-sided
lower limit	-20.6
upper limit	-5.1

Notes:

[8] - mixed-effect model for repeated measures

Statistical analysis title	Placebo vs Nemolizumab (90 mg)

Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	other[9]
P-value	= 0.058
Method	Kenward Roger
Parameter estimate	mean difference of absolute changes
Point estimate	-7.6
Confidence interval	
level	95 %
sides	2-sided
lower limit	-15.4
upper limit	0.3

Notes:

[9] - mixed-effect model for repeated measures

Secondary: Percent Change from Baseline in Weekly Average Sleep Disturbance Numeric Rating Scale (NRS) at Week 24

End point title	Percent Change from Baseline in Weekly Average Sleep Disturbance Numeric Rating Scale (NRS) at Week 24

End point description:

The sleep disturbance NRS is a scale used by the participants to report the degree of their sleep loss related to AD. Participants were asked the following questions in their local language: how would you rate your sleep last night?: On a scale of 0 to 10, with 0 being 'no sleep loss related to signs/symptoms of AD' and 10 being 'I cannot sleep at all due to the signs/symptoms of AD'. Higher scores indicate worse outcome.

End point type	Secondary

End point timeframe:

At Week 24

End point values	Placebo	Nemolizumab (10 mg)	Nemolizumab (30 mg)	Nemolizumab (90 mg)
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	57	55	57	57
Units: Percentage change				
arithmetic mean (standard deviation)	-50.7 (± 33.52)	-75.4 (± 27.64)	-76.2 (± 23.60)	-74.9 (± 29.39)

Statistical analyses

Statistical analysis title	Placebo vs Nemolizumab (10 mg)

Statistical analysis description:

Week 24

Comparison groups	Placebo v Nemolizumab (10 mg)

Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	other[10]
P-value	< 0.001
Method	Mixed models analysis
Parameter estimate	mean difference of percentage changes
Point estimate	-24.5
Confidence interval	
level	95 %
sides	2-sided
lower limit	-37.8
upper limit	-11.2

Notes:

[10] - mixed-effect model for repeated measures

Statistical analysis title	Placebo vs Nemolizumab (30 mg)

Statistical analysis description:

Week 24

Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	other[11]
P-value	< 0.001
Method	Mixed models analysis
Parameter estimate	mean difference of percentage changes
Point estimate	-31.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	-44.9
upper limit	-18.6

Notes:

[11] - mixed-effect model for repeated measures

Statistical analysis title	Placebo v Nemolizumab (90 mg)

Statistical analysis description:

Week 24

Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	other[12]
P-value	< 0.001
Method	Mixed models analysis
Parameter estimate	mean difference of percentage changes
Point estimate	-25.1
Confidence interval	
level	95 %
sides	2-sided
lower limit	-38.4
upper limit	-11.8

Notes:

[12] - mixed-effect model for repeated measures

Secondary: Absolute Change From Baseline in Weekly Average Sleep Disturbance Numeric Rating Scale (NRS) at Week 24

End point title	Absolute Change From Baseline in Weekly Average Sleep Disturbance Numeric Rating Scale (NRS) at Week 24

End point description:

The sleep disturbance NRS is a scale used by the participants to report the degree of their sleep loss related to AD. Participants were asked the following questions in their local language: how would you rate your sleep last night?: On a scale of 0 to 10, with 0 being 'no sleep loss related to signs/symptoms of AD' and 10 being 'I cannot sleep at all due to the signs/symptoms of AD'. Higher scores indicate worse outcome.

End point type	Secondary

End point timeframe:

At baseline and week 24

End point values	Placebo	Nemolizumab (10 mg)	Nemolizumab (30 mg)	Nemolizumab (90 mg)
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	57	55	57	57
Units: Units on a scale				
arithmetic mean (standard deviation)	-3.9 (± 2.74)	-6.2 (± 2.34)	-5.7 (± 2.51)	-5.8 (± 2.62)

Statistical analyses

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	other[13]
P-value	< 0.001
Method	Kenward Roger
Parameter estimate	mean difference of absolute changes
Point estimate	-2
Confidence interval	
level	95 %
sides	2-sided
lower limit	-3.1
upper limit	-1

Notes:

[13] - mixed-effect model for repeated measures

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Comparison groups	Placebo v Nemolizumab (30 mg)

Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	other[14]
P-value	< 0.001
Method	Kenward Roger
Parameter estimate	mean difference of absolute changes
Point estimate	-2.3
Confidence interval	
level	95 %
sides	2-sided
lower limit	-3.4
upper limit	-1.3

Notes:

[14] - mixed-effect model for repeated measures

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	other[15]
P-value	< 0.001
Method	Kenward Roger
Parameter estimate	mean difference of absolute changes
Point estimate	-1.9
Confidence interval	
level	95 %
sides	2-sided
lower limit	-3
upper limit	-0.9

Notes:

[15] - mixed-effect model for repeated measures

Secondary: Number of Participants Achieving Investigator’s Global Assessment (IGA) Success (Defined as IGA 0 [Clear] or 1 [Almost Clear]) at Each Timepoint up to Week 24

End point title	Number of Participants Achieving Investigator’s Global Assessment (IGA) Success (Defined as IGA 0 [Clear] or 1 [Almost Clear]) at Each Timepoint up to Week 24

End point description:

IGA is a 5-point scale ranging from 0 (clear) to 4 (severe) usedto evaluate the global severity of AD. Higher scores indicate worse outcome.

Note: n=number of subjects in analysis.

Week 1 n: 55, 53, 55,57; Week 2 n: 55, 55, 55, 57; Week 4 n: 54, 55, 54, 56; Week 8 n: 52, 53, 52, 54; Week 12 n: 45, 46, 50, 51; Week 16 n: 44, 46, 47, 45; Week 20 n: 39, 42, 46, 41; Week 24 n: 38, 40, 44, 40.

End point type	Secondary

End point timeframe:

Week 1 to Week 24

End point values	Placebo	Nemolizumab (10 mg)	Nemolizumab (30 mg)	Nemolizumab (90 mg)
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	57	55	57	57
Units: Participants				
Week 1	1	1	2	0
Week 2	2	1	4	1
Week 4	2	1	9	7
Week 8	2	3	10	11
Week 12	6	6	15	15
Week 16	7	9	19	15
Week 20	9	11	19	14
Week 24	12	14	21	13

Statistical analyses

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description: Week 1	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.97
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	0.1
Confidence interval	
level	95 %
sides	2-sided
lower limit	-4.9
upper limit	5.1

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description: Week 1	
Comparison groups	Placebo v Nemolizumab (30 mg)

Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.574
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	1.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	-4.1
upper limit	7.5

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description:	
Week 1	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.311
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	-1.8
Confidence interval	
level	95 %
sides	2-sided
lower limit	-5.2
upper limit	1.7

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description:	
Week 2	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.558
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	-1.8
Confidence interval	
level	95 %
sides	2-sided
lower limit	-7.7
upper limit	4.1

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description: Week 2	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.413
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	3.4
Confidence interval	
level	95 %
sides	2-sided
lower limit	-4.7
upper limit	11.6

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description: Week 2	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.543
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	-1.8
Confidence interval	
level	95 %
sides	2-sided
lower limit	-7.7
upper limit	4

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description: Week 4	
Comparison groups	Placebo v Nemolizumab (10 mg)

Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.583
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	-1.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	-7.6
upper limit	4.2

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description:	
Week 4	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.028
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	12.2
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.8
upper limit	22.5

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description:	
Week 4	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.087
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	8.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.9
upper limit	18.3

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description: Week 8	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.632
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	1.9
Confidence interval	
level	95 %
sides	2-sided
lower limit	-5.6
upper limit	9.4

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description: Week 8	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.016
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	14
Confidence interval	
level	95 %
sides	2-sided
lower limit	3.1
upper limit	24.8

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description: Week 8	
Comparison groups	Placebo v Nemolizumab (90 mg)

Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.009
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	15.8
Confidence interval	
level	95 %
sides	2-sided
lower limit	4.5
upper limit	27

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description:	
Week 12	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.974
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	0.2
Confidence interval	
level	95 %
sides	2-sided
lower limit	-11.2
upper limit	11.6

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description:	
Week 12	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.031
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	15.6
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.8
upper limit	29.3

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description: Week 12	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.032
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	15.6
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.8
upper limit	29.5

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description: Week 16	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.553
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	4
Confidence interval	
level	95 %
sides	2-sided
lower limit	-9
upper limit	16.9

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description: Week 16	
Comparison groups	Placebo v Nemolizumab (30 mg)

Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.008
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	20.9
Confidence interval	
level	95 %
sides	2-sided
lower limit	6.1
upper limit	35.8

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.061
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	13.9
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.3
upper limit	28.2

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description: Week 20	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.585
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	4
Confidence interval	
level	95 %
sides	2-sided
lower limit	-10.1
upper limit	18

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description: Week 20	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.032
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	17.4
Confidence interval	
level	95 %
sides	2-sided
lower limit	2
upper limit	32.8

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description: Week 20	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.254
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	8.6
Confidence interval	
level	95 %
sides	2-sided
lower limit	-5.9
upper limit	23.1

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description: Week 24	
Comparison groups	Placebo v Nemolizumab (10 mg)

Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.598
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	4.2
Confidence interval	
level	95 %
sides	2-sided
lower limit	-11.3
upper limit	19.8

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description:	
Week 24	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.066
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	15.5
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.4
upper limit	31.4

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description:	
Week 24	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.826
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	1.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	-13.5
upper limit	16.9

Secondary: Number of Participants With Eczema Area and Severity Index (EASI)-50 (Defined as Achieving 50% Reduction From Baseline in EASI Score) at Each Visit up to Week 24

End point title	Number of Participants With Eczema Area and Severity Index (EASI)-50 (Defined as Achieving 50% Reduction From Baseline in EASI Score) at Each Visit up to Week 24

End point description:

EASI is a composite score ranging from 0 to 72. The severity of erythema, induration/papulation, excoriation, and lichenification were assessed on a scale of 0 (absent) to 3 (severe) for each of the 4 body areas: head/neck, trunk, upper limbs, and lower limbs, with half points allowed. Higher scores indicate worse outcome.

Note: n=number of subjects in analysis.
Week 1 n: 55, 53, 55, 57; Week 2 n: 55, 55, 55,57; Week 4 n: 54, 55, 54, 56; Week 8 n: 52, 53, 52, 54; Week 12 n: 45, 46, 50, 51; Week 16 n: 44, 46, 47, 45; Week 20 n: 39, 42, 46, 41; Week 24 n: 38, 40, 44, 40.

End point type	Secondary

End point timeframe:

From week 1 to Week 24

End point values	Placebo	Nemolizumab (10 mg)	Nemolizumab (30 mg)	Nemolizumab (90 mg)
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	57	55	57	57
Units: Participants				
Week 1	4	6	12	11
Week 2	8	18	18	21
Week 4	14	22	29	24
Week 8	15	26	31	31
Week 12	20	30	36	30
Week 16	21	30	34	32
Week 20	23	32	38	33
Week 24	25	33	38	31

Statistical analyses

Statistical analysis title	Placebo vs Nemolizumab (10 mg)

Statistical analysis description:

Week 1

Comparison groups	Placebo v Nemolizumab (10 mg)

Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.487
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	3.8
Confidence interval	
level	95 %
sides	2-sided
lower limit	-6.8
upper limit	14.3

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description:	
Week 1	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.033
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	14
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.6
upper limit	26.5

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description:	
Week 1	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.053
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	12
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.2
upper limit	23.8

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description: Week 2	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.021
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	18.5
Confidence interval	
level	95 %
sides	2-sided
lower limit	3.2
upper limit	33.8

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description: Week 2	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.027
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	17.4
Confidence interval	
level	95 %
sides	2-sided
lower limit	2.4
upper limit	32.3

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description: Week 2	
Comparison groups	Placebo v Nemolizumab (90 mg)

Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.006
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	22.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	7.3
upper limit	38.1

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description:	
Week 4	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.086
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	15.2
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.7
upper limit	32.2

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description:	
Week 4	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.004
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	26.2
Confidence interval	
level	95 %
sides	2-sided
lower limit	9.3
upper limit	43.1

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description: Week 4	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.05
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	17.3
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.5
upper limit	34.2

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description: Week 8	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.023
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	20.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	3.3
upper limit	38.1

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description: Week 8	
Comparison groups	Placebo v Nemolizumab (30 mg)

Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.002
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	27.9
Confidence interval	
level	95 %
sides	2-sided
lower limit	10.7
upper limit	45

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description:	
Week 8	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.002
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	27.9
Confidence interval	
level	95 %
sides	2-sided
lower limit	10.7
upper limit	45

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description:	
Week 12	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.041
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	19.3
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.3
upper limit	37.3

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description: Week 12	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.003
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	27.9
Confidence interval	
level	95 %
sides	2-sided
lower limit	10.4
upper limit	45.4

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description: Week 12	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.063
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	17.3
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.5
upper limit	35.2

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description: Week 16	
Comparison groups	Placebo v Nemolizumab (10 mg)

Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.064
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	17.6
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.4
upper limit	35.6

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description:	
Week 16	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.016
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	22.6
Confidence interval	
level	95 %
sides	2-sided
lower limit	4.9
upper limit	40.3

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description:	
Week 16	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.041
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	19.1
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.3
upper limit	36.9

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description: Week 20	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.064
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	17.6
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.4
upper limit	35.6

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description: Week 20	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.005
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	26
Confidence interval	
level	95 %
sides	2-sided
lower limit	8.6
upper limit	43.4

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description: Week 20	
Comparison groups	Placebo v Nemolizumab (90 mg)

Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.064
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	17.2
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.6
upper limit	35

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description:	
Week 24	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.094
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	15.9
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2
upper limit	33.8

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description:	
Week 24	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.014
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	22.4
Confidence interval	
level	95 %
sides	2-sided
lower limit	5.1
upper limit	39.6

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description: Week 24	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.273
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	10.2
Confidence interval	
level	95 %
sides	2-sided
lower limit	-7.7
upper limit	28

Secondary: Number of Participants With Eczema Area and Severity Index (EASI)-75 (Defined as Achieving 75% Reduction From Baseline in EASI Score) at Each Visit up to Week 24

End point title	Number of Participants With Eczema Area and Severity Index (EASI)-75 (Defined as Achieving 75% Reduction From Baseline in EASI Score) at Each Visit up to Week 24

End point description:

EASI is a composite score ranging from 0 to 72. The severity of erythema, induration/papulation, excoriation, and lichenification were assessed on a scale of 0 (absent) to 3 (severe) for each of the 4 body areas: head/neck, trunk, upper limbs, and lower limbs, with half points allowed. Higher scores indicate worse outcome.

Note: n=number of subjects in analysis.
Week 1 n: 55, 53, 55, 57; Week 2 n: 55, 55, 55, 57; Week 4 n: 54, 55, 54, 56; Week 8n: 52, 53, 52, 54; Week 12 n: 45, 46, 50, 51; Week 16 n: 44, 46, 47, 45; Week 20 n: 39, 42, 46, 41; Week 24 n: 38, 40, 44, 40.

End point type	Secondary
End point timeframe: From week 1 to Week 24	

End point values	Placebo	Nemolizumab (10 mg)	Nemolizumab (30 mg)	Nemolizumab (90 mg)
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	57	55	57	57
Units: Participants				
Week 1	2	2	3	3
Week 2	4	5	6	12
Week 4	3	7	12	15

Week 8	7	10	21	15
Week 12	10	15	25	21
Week 16	11	18	28	21
Week 20	16	21	25	21
Week 24	15	20	26	25

Statistical analyses

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description: Week 1	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.979
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	0.1
Confidence interval	
level	95 %
sides	2-sided
lower limit	-6.8
upper limit	7

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description: Week 1	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.668
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	1.6
Confidence interval	
level	95 %
sides	2-sided
lower limit	-5.8
upper limit	9

Statistical analysis title	Placebo vs Nemolizumab (90 mg)

Statistical analysis description: Week 1	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.658
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	1.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	-5.8
upper limit	9.2

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description: Week 2	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.69
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	2.1
Confidence interval	
level	95 %
sides	2-sided
lower limit	-8
upper limit	12.2

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description: Week 2	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.521
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	3.4

Confidence interval	
level	95 %
sides	2-sided
lower limit	-6.9
upper limit	13.7

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description:	
Week 2	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.033
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	14
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.5
upper limit	26.5

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description:	
Week 4	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.172
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	7.4
Confidence interval	
level	95 %
sides	2-sided
lower limit	-3.1
upper limit	18

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description:	
Week 4	
Comparison groups	Placebo v Nemolizumab (30 mg)

Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.014
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	15.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	3.7
upper limit	27.7

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description:	
Week 4	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.002
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	21
Confidence interval	
level	95 %
sides	2-sided
lower limit	8.2
upper limit	33.9

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description:	
Week 8	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.404
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	5.6
Confidence interval	
level	95 %
sides	2-sided
lower limit	-7.5
upper limit	18.8

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description: Week 8	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.003
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	24.5
Confidence interval	
level	95 %
sides	2-sided
lower limit	9.4
upper limit	39.6

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description: Week 8	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.059
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	14.1
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.1
upper limit	28.2

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description: Week 12	
Comparison groups	Placebo v Nemolizumab (10 mg)

Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.222
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	9.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	-5.6
upper limit	25

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description:	
Week 12	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.003
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	26.1
Confidence interval	
level	95 %
sides	2-sided
lower limit	10
upper limit	42.3

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description:	
Week 12	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.022
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	19.1
Confidence interval	
level	95 %
sides	2-sided
lower limit	3.3
upper limit	35

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description: Week 16	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.111
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	13.3
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.8
upper limit	29.3

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description: Week 16	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	29.6
Confidence interval	
level	95 %
sides	2-sided
lower limit	13.2
upper limit	46

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description: Week 16	
Comparison groups	Placebo v Nemolizumab (90 mg)

Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.04
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	17.4
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.3
upper limit	33.6

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description: Week 20	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.262
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	10.1
Confidence interval	
level	95 %
sides	2-sided
lower limit	-7.3
upper limit	27.4

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description: Week 20	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.327
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	8.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	-8.4
upper limit	25.7

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description: Week 20	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.083
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	15.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.7
upper limit	33.1

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description: Week 24	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.255
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	10.1
Confidence interval	
level	95 %
sides	2-sided
lower limit	-7
upper limit	27.2

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description: Week 24	
Comparison groups	Placebo v Nemolizumab (30 mg)

Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.034
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	19
Confidence interval	
level	95 %
sides	2-sided
lower limit	2.2
upper limit	35.9

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description:	
Week 24	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.053
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	17.4
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.3
upper limit	34.6

Secondary: Number of Participants With Eczema Area and Severity Index (EASI)-90 (Defined as Achieving 90% Reduction From Baseline in EASI Score) at Each Visit up to Week 24

End point title	Number of Participants With Eczema Area and Severity Index (EASI)-90 (Defined as Achieving 90% Reduction From Baseline in EASI Score) at Each Visit up to Week 24

End point description:

EASI is a composite score ranging from 0 to 72. The severity of erythema, induration/papulation, excoriation, and lichenification were assessed on a scale of 0 (absent) to 3 (severe) for each of the 4 body areas: head/neck, trunk, upper limbs, and lower limbs, with half points allowed. Higher scores indicate worse outcome..

Note: n=number of subjects in analysis.

Week 1 n: 55, 53, 55, 57; Week 2 n: 55, 55, 55, 57; Week 4 n: 54, 55, 54, 56; Week 8 n: 52, 53, 52, 54; Week 12 n: 45, 46, 50, 51; Week 16 n: 44, 46, 47, 45; Week 20 n: 39, 42, 46, 41; Week 24 n: 38, 40, 44, 40.

End point type	Secondary

End point timeframe:

From week 1 to Week 24

End point values	Placebo	Nemolizumab (10 mg)	Nemolizumab (30 mg)	Nemolizumab (90 mg)
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	57	55	57	57
Units: Participants				
Week 1	1	1	2	1
Week 2	2	0	2	2
Week 4	2	1	4	3
Week 8	1	3	11	6
Week 12	4	7	13	14
Week 16	5	10	19	12
Week 20	6	13	18	14
Week 24	6	13	17	13

Statistical analyses

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description: Week 1	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.97
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	0.1
Confidence interval	
level	95 %
sides	2-sided
lower limit	-4.9
upper limit	5.1

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description: Week 1	
Comparison groups	Placebo v Nemolizumab (30 mg)

Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.574
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	1.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	-4.1
upper limit	7.5

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description:	
Week 1	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.985
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	0
Confidence interval	
level	95 %
sides	2-sided
lower limit	-4.8
upper limit	4.8

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description:	
Week 2	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.154
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	-3.6
Confidence interval	
level	95 %
sides	2-sided
lower limit	-8.4
upper limit	1.2

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description: Week 2	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.978
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	-0.1
Confidence interval	
level	95 %
sides	2-sided
lower limit	-6.8
upper limit	6.6

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description: Week 2	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.978
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	-0.1
Confidence interval	
level	95 %
sides	2-sided
lower limit	-6.8
upper limit	6.6

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description: Week 4	
Comparison groups	Placebo v Nemolizumab (10 mg)

Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.602
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	-1.6
Confidence interval	
level	95 %
sides	2-sided
lower limit	-7.5
upper limit	4.3

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description:	
Week 4	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.413
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	3.4
Confidence interval	
level	95 %
sides	2-sided
lower limit	-4.5
upper limit	11.4

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description:	
Week 4	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.658
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	1.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	-5.7
upper limit	9.1

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description: Week 8	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.307
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	3.6
Confidence interval	
level	95 %
sides	2-sided
lower limit	-3.2
upper limit	10.3

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description: Week 8	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.002
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	17.3
Confidence interval	
level	95 %
sides	2-sided
lower limit	6.9
upper limit	27.8

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description: Week 8	
Comparison groups	Placebo v Nemolizumab (90 mg)

Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.054
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	8.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.1
upper limit	17.4

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description:	
Week 12	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.325
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	5.6
Confidence interval	
level	95 %
sides	2-sided
lower limit	-5.4
upper limit	16.5

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description:	
Week 12	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.019
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	15.6
Confidence interval	
level	95 %
sides	2-sided
lower limit	3.1
upper limit	28.1

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description: Week 12	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.011
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	17.5
Confidence interval	
level	95 %
sides	2-sided
lower limit	4.5
upper limit	30.5

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description: Week 16	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.153
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	9.2
Confidence interval	
level	95 %
sides	2-sided
lower limit	-3.2
upper limit	21.7

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description: Week 16	
Comparison groups	Placebo v Nemolizumab (30 mg)

Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.001
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	24.4
Confidence interval	
level	95 %
sides	2-sided
lower limit	10.3
upper limit	38.4

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description:	
Week 16	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.069
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	12.2
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.7
upper limit	25.1

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description:	
Week 20	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.07
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	12.9
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.8
upper limit	26.6

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description: Week 20	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.006
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	20.9
Confidence interval	
level	95 %
sides	2-sided
lower limit	6.5
upper limit	35.3

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description: Week 20	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.052
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	14
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.3
upper limit	27.7

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description: Week 24	
Comparison groups	Placebo v Nemolizumab (10 mg)

Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.069
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	12.8
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.7
upper limit	26.3

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description:	
Week 24	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.011
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	19.1
Confidence interval	
level	95 %
sides	2-sided
lower limit	4.9
upper limit	33.3

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description:	
Week 24	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.083
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	12.2
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.3
upper limit	25.7

Secondary: Number of participants achieving Investigator Global Assessment (IGA) success (defined as IGA 0 [clear] or 1 [almost clear]) and a reduction of ≥2 points at each visit up to Week 24

End point title	Number of participants achieving Investigator Global Assessment (IGA) success (defined as IGA 0 [clear] or 1 [almost clear]) and a reduction of ≥2 points at each visit up to Week 24

End point description:

IGA is a 5-point scale ranging from 0 (clear) to 4 (severe) used to evaluate the global severity of AD. Higher scores indicate worse outcome.

Note: n=number of subjects in analysis.
Week 1 n: 55, 53, 55, 57; Week 2 n:55, 55, 55, 57; Week 4 n: 54, 55, 54, 56; Week 8 n: 52,53, 52, 54; Week 12 n: 45, 46, 50, 51; Week 16 n:44, 46, 47, 45; Week 20 n: 39, 42, 46, 41; Week 24 n: 38, 40, 44, 40.

End point type	Secondary

End point timeframe:

Week 1 to Week 24

End point values	Placebo	Nemolizumab (10 mg)	Nemolizumab (30 mg)	Nemolizumab (90 mg)
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	57	55	57	57
Units: Participants				
Week 1	1	1	2	0
Week 2	2	1	4	1
Week 4	2	1	9	7
Week 8	2	3	10	11
Week 12	6	6	15	15
Week 16	7	9	19	15
Week 20	9	11	19	14
Week 24	12	14	21	13

Statistical analyses

Statistical analysis title	Placebo vs Nemolizumab (10 mg)

Statistical analysis description:

Week 1

Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.97
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	0.1

Confidence interval	
level	95 %
sides	2-sided
lower limit	-4.9
upper limit	5.1

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description:	
Week 1	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.574
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	1.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	-4.1
upper limit	7.5

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description:	
Week 1	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.311
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	-1.8
Confidence interval	
level	95 %
sides	2-sided
lower limit	-5.2
upper limit	1.7

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description:	
Week 2	
Comparison groups	Placebo v Nemolizumab (10 mg)

Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.558
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	-1.8
Confidence interval	
level	95 %
sides	2-sided
lower limit	-7.7
upper limit	4.1

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description:	
Week 2	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.413
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	3.4
Confidence interval	
level	95 %
sides	2-sided
lower limit	-4.7
upper limit	11.6

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description:	
Week 2	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.543
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	-1.8
Confidence interval	
level	95 %
sides	2-sided
lower limit	-7.7
upper limit	4

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description: Week 4	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.583
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	-1.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	-7.6
upper limit	4.2

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description: Week 4	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.028
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	12.2
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.8
upper limit	22.5

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description: Week 4	
Comparison groups	Placebo v Nemolizumab (90 mg)

Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.087
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	8.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.9
upper limit	18.3

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description:	
Week 8	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.632
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	1.9
Confidence interval	
level	95 %
sides	2-sided
lower limit	-5.6
upper limit	9.4

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description:	
Week 8	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.016
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	14
Confidence interval	
level	95 %
sides	2-sided
lower limit	3.1
upper limit	24.8

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description: Week 8	
Comparison groups	Nemolizumab (90 mg) v Placebo
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.009
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	15.8
Confidence interval	
level	95 %
sides	2-sided
lower limit	4.5
upper limit	27

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description: Week 12	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.974
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	0.2
Confidence interval	
level	95 %
sides	2-sided
lower limit	-11.2
upper limit	11.6

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description: Week 12	
Comparison groups	Placebo v Nemolizumab (30 mg)

Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.031
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	15.6
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.8
upper limit	29.3

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description:	
Week 12	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.032
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	15.6
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.8
upper limit	29.5

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description:	
Week 16	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.553
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	4
Confidence interval	
level	95 %
sides	2-sided
lower limit	-9
upper limit	16.9

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description: Week 16	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.008
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	20.9
Confidence interval	
level	95 %
sides	2-sided
lower limit	6.1
upper limit	35.8

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description: Week 16	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.061
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	13.9
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.3
upper limit	28.2

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description: Week 20	
Comparison groups	Placebo v Nemolizumab (10 mg)

Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.585
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	4
Confidence interval	
level	95 %
sides	2-sided
lower limit	-10.1
upper limit	18

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description:	
Week 16	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.032
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	17.4
Confidence interval	
level	95 %
sides	2-sided
lower limit	2
upper limit	32.8

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description:	
Week 16	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.254
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	8.6
Confidence interval	
level	95 %
sides	2-sided
lower limit	-5.9
upper limit	23.1

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description: Week 24	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.598
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	4.2
Confidence interval	
level	95 %
sides	2-sided
lower limit	-11.3
upper limit	19.8

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description: Week 24	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.066
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	15.5
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.4
upper limit	31.4

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description: Week 24	
Comparison groups	Placebo v Nemolizumab (90 mg)

Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.826
Method	Cochran-Mantel-Haenszel
Parameter estimate	Mean difference (final values)
Point estimate	1.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	-13.5
upper limit	16.9

Secondary: Percentage Change from Baseline in Eczema Area and Severity Index (EASI) at Each Visit up to Week 24

End point title	Percentage Change from Baseline in Eczema Area and Severity Index (EASI) at Each Visit up to Week 24

End point description:

EASI is a composite score ranging from 0 to 72.The severity of erythema, induration/papulation, excoriation, and lichenification was assessed on a scale of 0 (absent) to 3 (severe) for each of the 4 body areas: head/neck, trunk, upper limbs, and lower limbs, with half points allowed. Higher scores indicate worse outcome.

Note: n=number of subjects in analysis.
Week 1 n: 55, 53, 55, 57; Week 2 n:55, 55,55, 57; Week 4 n: 54, 55, 54,56; Week 8 n: 52, 53, 52, 54; Week 12 n: 45,46,50,51; Week 16 n: 44,46,47,45; Week 20 n: 39,42,46,41; Week 24 n: 38,40,44,40.

End point type	Secondary

End point timeframe:

From Baseline to Week 24

End point values	Placebo	Nemolizumab (10 mg)	Nemolizumab (30 mg)	Nemolizumab (90 mg)
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	57	55	57	57
Units: Percentage change				
arithmetic mean (standard deviation)				
Week 1	-12.4 (± 24.32)	-22.7 (± 23.54)	-29.3 (± 31.44)	-28.6 (± 25.52)
Week 2	-24.8 (± 29.16)	-34.9 (± 27.70)	-40.1 (± 26.96)	-40.1 (± 32.83)
Week 4	-26.5 (± 33.45)	-40.3 (± 28.36)	-46.7 (± 38.49)	-41.8 (± 41.57)
Week 8	-28.6 (± 36.85)	-42.0 (± 38.15)	-51.7 (± 47.73)	-49.9 (± 37.21)
Week 12	-43.3 (± 35.22)	-58.5 (± 28.16)	-64.1 (± 33.92)	-56.7 (± 37.25)
Week 16	-47.6 (± 32.09)	-59.1 (± 33.90)	-72.2 (± 27.59)	-61.8 (± 41.62)
Week 20	-57.3 (± 31.66)	-67.2 (± 35.18)	-71.6 (± 29.39)	-70.9 (± 27.07)
Week 24	-58.4 (± 31.99)	-72.2 (± 25.96)	-73.4 (± 29.67)	-69.2 (± 31.06)

Statistical analyses

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description: Week 1	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.049
Method	Kenward-Rogers
Parameter estimate	mean difference of percentage changes
Point estimate	-10
Confidence interval	
level	95 %
sides	2-sided
lower limit	-20
upper limit	0

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description: Week 1	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Kenward-Rogers
Parameter estimate	mean difference of percentage changes
Point estimate	-16.9
Confidence interval	
level	95 %
sides	2-sided
lower limit	-26.7
upper limit	-7

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description: Week 1	
Comparison groups	Placebo v Nemolizumab (90 mg)

Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.002
Method	Kenward-Rogers
Parameter estimate	mean difference of percentage changes
Point estimate	-15.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	-25.6
upper limit	-5.8

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description:	
Week 2	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.084
Method	Kenward-Rogers
Parameter estimate	mean difference of percentage changes
Point estimate	-9.8
Confidence interval	
level	95 %
sides	2-sided
lower limit	-20.9
upper limit	1.3

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description:	
Week 2	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.004
Method	Kenward-Rogers
Parameter estimate	mean difference of percentage changes
Point estimate	-16.2
Confidence interval	
level	95 %
sides	2-sided
lower limit	-27.2
upper limit	-5.2

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description: Week 2	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.008
Method	Kenward-Rogers
Parameter estimate	mean difference of percentage changes
Point estimate	-14.8
Confidence interval	
level	95 %
sides	2-sided
lower limit	-25.8
upper limit	-3.8

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description: Week 4	
Comparison groups	Nemolizumab (10 mg) v Placebo
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.044
Method	Kenward-Rogers
Parameter estimate	mean difference of percentage changes
Point estimate	-14
Confidence interval	
level	95 %
sides	2-sided
lower limit	-27.5
upper limit	-0.4

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description: Week 4	
Comparison groups	Placebo v Nemolizumab (30 mg)

Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.002
Method	Kenward-Rogers
Parameter estimate	mean difference of percentage changes
Point estimate	-21.1
Confidence interval	
level	95 %
sides	2-sided
lower limit	-34.7
upper limit	-7.6

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description:	
Week 4	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.026
Method	Kenward-Rogers
Parameter estimate	mean difference of percentage changes
Point estimate	-15.3
Confidence interval	
level	95 %
sides	2-sided
lower limit	-28.8
upper limit	-1.8

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description:	
Week 8	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.062
Method	Kenward-Rogers
Parameter estimate	mean difference of percentage changes
Point estimate	-14.8
Confidence interval	
level	95 %
sides	2-sided
lower limit	-30.2
upper limit	0.7

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description: Week 8	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.003
Method	Kenward-Rogers
Parameter estimate	mean difference of percentage changes
Point estimate	-23.4
Confidence interval	
level	95 %
sides	2-sided
lower limit	-38.9
upper limit	-7.9

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description: Week 8	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.009
Method	Kenward-Rogers
Parameter estimate	mean difference of percentage changes
Point estimate	-20.6
Confidence interval	
level	95 %
sides	2-sided
lower limit	-36
upper limit	-5.2

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description: Week 12	
Comparison groups	Placebo v Nemolizumab (10 mg)

Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.022
Method	Kenward-Rogers
Parameter estimate	mean difference of percentage changes
Point estimate	-15.9
Confidence interval	
level	95 %
sides	2-sided
lower limit	-29.4
upper limit	-2.3

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description:	
Week 12	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Kenward-Rogers
Parameter estimate	mean difference of percentage changes
Point estimate	-23.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	-37.1
upper limit	-10.2

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description:	
Week 12	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.032
Method	Kenward-Rogers
Parameter estimate	mean difference of percentage changes
Point estimate	-14.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	-28.1
upper limit	-1.3

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description: Week 16	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.07
Method	Kenward-Rogers
Parameter estimate	mean difference of percentage changes
Point estimate	-13.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	-28.6
upper limit	1.1

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description: Week 16	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.002
Method	Kenward-Rogers
Parameter estimate	mean difference of percentage changes
Point estimate	-23.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	-38.5
upper limit	-8.9

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description: Week 16	
Comparison groups	Placebo v Nemolizumab (90 mg)

Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.154
Method	Kenward-Rogers
Parameter estimate	mean difference of percentage changes
Point estimate	-10.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	-25.6
upper limit	4.1

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description: Week 20	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.09
Method	Kenward-Rogers
Parameter estimate	mean difference of percentage changes
Point estimate	-12.1
Confidence interval	
level	95 %
sides	2-sided
lower limit	-26
upper limit	1.9

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description: Week 20	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.024
Method	Kenward-Rogers
Parameter estimate	mean difference of percentage changes
Point estimate	-15.9
Confidence interval	
level	95 %
sides	2-sided
lower limit	-29.7
upper limit	-2.1

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description: Week 20	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.18
Method	Kenward-Rogers
Parameter estimate	mean difference of percentage changes
Point estimate	-9.5
Confidence interval	
level	95 %
sides	2-sided
lower limit	-23.4
upper limit	4.4

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description: Week 24	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.051
Method	Kenward-Rogers
Parameter estimate	mean difference of percentage changes
Point estimate	-13.6
Confidence interval	
level	95 %
sides	2-sided
lower limit	-27.3
upper limit	0

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description: Week 24	
Comparison groups	Placebo v Nemolizumab (30 mg)

Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.016
Method	Kenward-Rogers
Parameter estimate	mean difference of percentage changes
Point estimate	-16.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	-30.2
upper limit	-3.2

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description:	
Week 24	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.322
Method	Kenward-Rogers
Parameter estimate	mean difference of percentage changes
Point estimate	-6.8
Confidence interval	
level	95 %
sides	2-sided
lower limit	-20.5
upper limit	6.8

Secondary: Percent Change from Baseline in Weekly Average of the Peak Pruritus Numeric Rating Scale (NRS) at Each Visit up to Week 24

End point title	Percent Change from Baseline in Weekly Average of the Peak Pruritus Numeric Rating Scale (NRS) at Each Visit up to Week 24

End point description:

Pruritus NRS is a scale that was used by the participants to report the intensity of their pruritus (itch) during the last 24 hours. For maximum itch intensity: the scores were provided on a scale of 0 to 10, with 0 being 'no itch' and 10 being 'worst itch imaginable'. Higher scores indicate worse outcome.

Note: n=number of subjects in analysis.
Week 1 n: 55, 52, 53, 52; Week 2 n:53, 50,55, 50; Week 4 n: 52, 50, 51,49; Week 8 n: 50, 45, 51, 46; Week 12 n: 41, 41, 48, 42; Week 16 n: 39, 39, 47, 40; Week 20 n: 34, 37, 41, 36; Week 24 n: 32, 33, 36, 31.

End point type	Secondary

End point timeframe:

At baseline and Week 24

End point values	Placebo	Nemolizumab (10 mg)	Nemolizumab (30 mg)	Nemolizumab (90 mg)
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	57	55	57	57
Units: Percentage of change				
arithmetic mean (standard deviation)				
Week 1	-9.8 (± 18.47)	-22.6 (± 21.76)	-25.5 (± 30.15)	-19.8 (± 21.16)
Week 2	-12.9 (± 23.97)	-36.9 (± 27.34)	-42.1 (± 23.91)	-37.6 (± 32.29)
Week 4	-16.3 (± 23.77)	-38.7 (± 30.25)	-51.8 (± 26.87)	-45.7 (± 32.64)
Week 8	-23.0 (± 23.88)	-48.2 (± 28.82)	-61.5 (± 24.16)	-58.0 (± 28.63)
Week 12	-28.2 (± 28.83)	-58.0 (± 28.99)	-68.7 (± 25.04)	-56.4 (± 29.81)
Week 16	-36.2 (± 30.25)	-61.4 (± 28.62)	-71.7 (± 22.53)	-63.7 (± 33.07)
Week 20	-38.0 (± 30.11)	-64.6 (± 28.62)	-69.9 (± 26.30)	-69.7 (± 28.47)
Week 24	-42.2 (± 31.66)	-65.8 (± 29.94)	-66.9 (± 38.60)	-68.2 (± 26.88)

Statistical analyses

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description: Week 1	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.012
Method	Kenward Roger
Parameter estimate	mean difference of percentage changes
Point estimate	-10.9
Confidence interval	
level	95 %
sides	2-sided
lower limit	-19.4
upper limit	-2.4

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description: Week 1	
Comparison groups	Placebo v Nemolizumab (30 mg)

Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Kenward Roger
Parameter estimate	mean difference of percentage changes
Point estimate	-15.4
Confidence interval	
level	95 %
sides	2-sided
lower limit	-23.8
upper limit	-7.1

Statistical analysis title	Placebo v Nemolizumab (90 mg)
Statistical analysis description:	
Week 1	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.029
Method	Kenward Roger
Parameter estimate	mean difference of percentage changes
Point estimate	-9.4
Confidence interval	
level	95 %
sides	2-sided
lower limit	-17.8
upper limit	-0.9

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description:	
Week 2	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Kenward Roger
Parameter estimate	mean difference of percentage changes
Point estimate	-21.8
Confidence interval	
level	95 %
sides	2-sided
lower limit	-32
upper limit	-11.6

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description: Week 2	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Kenward Roger
Parameter estimate	mean difference of percentage changes
Point estimate	-29.1
Confidence interval	
level	95 %
sides	2-sided
lower limit	-39.1
upper limit	-19.1

Statistical analysis title	Placebo v Nemolizumab (90 mg)
Statistical analysis description: Week 2	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Kenward Roger
Parameter estimate	mean difference of percentage changes
Point estimate	-23.8
Confidence interval	
level	95 %
sides	2-sided
lower limit	-34
upper limit	-13.6

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description: Week 4	
Comparison groups	Placebo v Nemolizumab (10 mg)

Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Kenward Roger
Parameter estimate	mean difference of percentage changes
Point estimate	-21.3
Confidence interval	
level	95 %
sides	2-sided
lower limit	-32.1
upper limit	-10.5

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description:	
Week 4	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Kenward Roger
Parameter estimate	mean difference of percentage changes
Point estimate	-34.8
Confidence interval	
level	95 %
sides	2-sided
lower limit	-45.5
upper limit	-24.2

Statistical analysis title	Placebo v Nemolizumab (90 mg)
Statistical analysis description:	
Week 4	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Kenward Roger
Parameter estimate	mean difference of percentage changes
Point estimate	-30.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	-41.6
upper limit	-19.9

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description: Week 8	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Kenward Roger
Parameter estimate	mean difference of percentage changes
Point estimate	-22.9
Confidence interval	
level	95 %
sides	2-sided
lower limit	-33.2
upper limit	-12.6

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description: Week 8	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Kenward Roger
Parameter estimate	mean difference of percentage changes
Point estimate	-37.3
Confidence interval	
level	95 %
sides	2-sided
lower limit	-47.4
upper limit	-27.2

Statistical analysis title	Placebo v Nemolizumab (90 mg)
Statistical analysis description: Week 8	
Comparison groups	Placebo v Nemolizumab (90 mg)

Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Kenward Roger
Parameter estimate	mean difference of percentage changes
Point estimate	-34.1
Confidence interval	
level	95 %
sides	2-sided
lower limit	-44.4
upper limit	-23.8

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description:	
Week 12	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Kenward Roger
Parameter estimate	mean difference of percentage changes
Point estimate	-24.1
Confidence interval	
level	95 %
sides	2-sided
lower limit	-35.6
upper limit	-12.5

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description:	
Week 12	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Kenward Roger
Parameter estimate	mean difference of percentage changes
Point estimate	-38.4
Confidence interval	
level	95 %
sides	2-sided
lower limit	-49.7
upper limit	-27.2

Statistical analysis title	Placebo v Nemolizumab (90 mg)
Statistical analysis description: Week 12	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Kenward Roger
Parameter estimate	mean difference of percentage changes
Point estimate	-30.2
Confidence interval	
level	95 %
sides	2-sided
lower limit	-41.7
upper limit	-18.7

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description: Week 16	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Kenward Roger
Parameter estimate	mean difference of percentage changes
Point estimate	-20.9
Confidence interval	
level	95 %
sides	2-sided
lower limit	-32.8
upper limit	-8.9

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description: Week 16	
Comparison groups	Placebo v Nemolizumab (30 mg)

Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Kenward Roger
Parameter estimate	mean difference of percentage changes
Point estimate	-34.3
Confidence interval	
level	95 %
sides	2-sided
lower limit	-46
upper limit	-22.6

Statistical analysis title	Placebo v Nemolizumab (90 mg)
Statistical analysis description:	
Week 16	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Kenward Roger
Parameter estimate	mean difference of percentage changes
Point estimate	-28.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	-40.7
upper limit	-16.8

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description:	
Week 20	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.001
Method	Kenward Roger
Parameter estimate	mean difference of percentage changes
Point estimate	-21.1
Confidence interval	
level	95 %
sides	2-sided
lower limit	-33.7
upper limit	-8.4

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description: Week 20	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Kenward Roger
Parameter estimate	mean difference of percentage changes
Point estimate	-29.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	-42.1
upper limit	-17.3

Statistical analysis title	Placebo v Nemolizumab (90 mg)
Statistical analysis description: Week 20	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Kenward Roger
Parameter estimate	mean difference of percentage changes
Point estimate	-27.9
Confidence interval	
level	95 %
sides	2-sided
lower limit	-40.6
upper limit	-15.2

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description: Week 24	
Comparison groups	Placebo v Nemolizumab (10 mg)

Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.002
Method	Kenward Roger
Parameter estimate	mean difference of percentage changes
Point estimate	-22.4
Confidence interval	
level	95 %
sides	2-sided
lower limit	-36.1
upper limit	-8.6

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description:	
Week 24	
Comparison groups	Placebo v Nemolizumab (30 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Kenward Roger
Parameter estimate	mean difference of percentage changes
Point estimate	-31.5
Confidence interval	
level	95 %
sides	2-sided
lower limit	-44.9
upper limit	-18

Statistical analysis title	Placebo v Nemolizumab (90 mg)
Statistical analysis description:	
Week 24	
Comparison groups	Nemolizumab (90 mg) v Placebo
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Kenward Roger
Parameter estimate	mean difference of percentage changes
Point estimate	-30
Confidence interval	
level	95 %
sides	2-sided
lower limit	-43.8
upper limit	-16.2

Secondary: Number of Participants With Adverse Events

End point title	Number of Participants With Adverse Events

End point description:

To evaluate the safety of nemolizumab in participants with moderate-to-severe AD

End point type	Secondary

End point timeframe:

From screening to Follow-up visit (Week 32)/Early termination visit

End point values	Placebo	Nemolizumab (10 mg)	Nemolizumab (30 mg)	Nemolizumab (90 mg)
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	56	55	57	57
Units: Participants				
Subjects with treatment-emergent SAEs	1	3	2	2
TEAE with fatal outcome	0	1	0	0
Subjects with TEAE leading to temporary study drug	0	1	2	1
Subjects with TEAE leading to permanent study drug	4	4	2	7
Subjects with TEAE leading to study withdrawal	0	3	2	3
Subjects with at least 1 TEAE	43	47	47	48
Subjects with severe TEAEs	6	3	5	2

Statistical analyses

No statistical analyses for this end point

Secondary: Absolute Change From Baseline in Weekly Average of the Peak Pruritus Numeric Rating Scale (NRS) at Each Visit up to Week 24

End point title	Absolute Change From Baseline in Weekly Average of the Peak Pruritus Numeric Rating Scale (NRS) at Each Visit up to Week 24

End point description:

Pruritus NRS is a scale that was used by the participants to report the intensity of their pruritus (itch) during the last 24 hours. For maximum itch intensity: the scores were provided on a scale of 0 to 10, with 0 being 'no itch' and 10 being 'worst itch imaginable'. Higher scores indicate worse outcome.

Note: n=number of subjects in analysis.
Week 1 n: 56, 52, 53,52; Week 2 n: 54, 50, 55, 50; Week 4 n: 55, 50, 53, 50; Week 8 n: 53, 45, 54, 47; Week 12 n: 43, 43, 52, 43; Week 16 n: 39, 41, 52, 42; Week 20 n: 36, 40, 47, 38; Week 24 n: 32, 33, 36, 31.

End point type	Secondary

End point timeframe:

Baseline to Week 24

End point values	Placebo	Nemolizumab (10 mg)	Nemolizumab (30 mg)	Nemolizumab (90 mg)
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	57	55	57	57
Units: Units on a scale				
arithmetic mean (standard deviation)				
Week 1	-0.9 (± 1.38)	-2.0 (± 1.96)	-2.3 (± 1.89)	-1.7 (± 1.66)
Week 2	-1.2 (± 1.82)	-3.1 (± 2.34)	-3.4 (± 1.96)	-3.3 (± 2.56)
Week 4	-1.4 (± 1.84)	-3.4 (± 2.62)	-4.2 (± 2.21)	-3.8 (± 2.73)
Week 8	-1.9 (± 1.94)	-4.1 (± 2.58)	-5.0 (± 2.14)	-4.7 (± 2.54)
Week 12	-2.3 (± 2.44)	-4.9 (± 2.45)	-5.6 (± 2.29)	-4.7 (± 2.66)
Week 16	-2.9 (± 2.55)	-5.2 (± 2.34)	-5.8 (± 2.25)	-5.1 (± 2.77)
Week 20	-3.1 (± 2.52)	-5.4 (± 2.61)	-5.9 (± 2.22)	-5.4 (± 2.66)
Week 24	-3.5 (± 2.65)	-5.6 (± 2.55)	-5.8 (± 2.54)	-5.5 (± 2.33)

Statistical analyses

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description: Week 24	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Kenward Roger
Parameter estimate	Mean difference (final values)
Point estimate	-2
Confidence interval	
level	95 %
sides	2-sided
lower limit	-3
upper limit	-1

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description: Week 24	
Comparison groups	Placebo v Nemolizumab (30 mg)

Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Kenward Roger
Parameter estimate	Mean difference (final values)
Point estimate	-2.8
Confidence interval	
level	95 %
sides	2-sided
lower limit	-3.8
upper limit	-1.8

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description:	
Week 24	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Kenward Roger
Parameter estimate	Mean difference (final values)
Point estimate	-2.3
Confidence interval	
level	95 %
sides	2-sided
lower limit	-3.3
upper limit	-1.3

Secondary: Absolute Change From Baseline in Weekly Average of the Average Pruritus Numeric Rating Scale (NRS) at Each Visit up to Week 24

End point title	Absolute Change From Baseline in Weekly Average of the Average Pruritus Numeric Rating Scale (NRS) at Each Visit up to Week 24

End point description:

Pruritus NRS is a scale to be used by the participants to report the intensity of their pruritus (itch) during the last 24 hours. For average itch intensity: the scores were provided on a scale of 0 to 10, with 0 being 'no itch' and 10 being 'worst itch imaginable'. Higher scores indicate worse outcome.

Note: n=number of subjects in analysis.
Week 1 n: 56, 52, 53,52; Week 2 n: 54, 50, 55, 50; Week 4 n: 55, 50, 53, 50; Week 8 n: 53, 45, 54, 47; Week 12 n: 43, 43, 52, 43 Week 16 n: 39, 41, 52, 42; Week 20 n: 36, 40, 47, 38; Week 24 n: 32, 33, 36, 31.

End point type	Secondary

End point timeframe:

Baseline to Week 24

End point values	Placebo	Nemolizumab (10 mg)	Nemolizumab (30 mg)	Nemolizumab (90 mg)
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	57	55	57	57
Units: units on a scale				
arithmetic mean (standard deviation)				
Week 1	-0.9 (± 1.24)	-2.0 (± 1.94)	-2.3 (± 1.86)	-1.8 (± 1.64)
Week 2	-1.2 (± 1.73)	-3.1 (± 2.32)	-3.3 (± 1.89)	-3.3 (± 2.50)
Week 4	-1.5 (± 1.73)	-3.5 (± 2.47)	-4.1 (± 2.16)	-3.8 (± 2.63)
Week 8	-2.1 (± 1.95)	-4.1 (± 2.42)	-4.9 (± 2.13)	-4.7 (± 2.39)
Week 12	-2.4 (± 2.43)	-4.9 (± 2.48)	-5.5 (± 2.29)	-4.6 (± 2.50)
Week 16	-3.0 (± 2.47)	-5.3 (± 2.18)	-5.7 (± 2.19)	-5.1 (± 2.59)
Week 20	-3.3 (± 2.55)	-5.3 (± 2.47)	-5.8 (± 2.18)	-5.3 (± 2.50)
Week 24	-3.7 (± 2.59)	-5.5 (± 2.53)	-5.6 (± 2.49)	-5.2 (± 2.19)

Statistical analyses

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description: Week 24	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Kenward Roger
Parameter estimate	Mean difference (final values)
Point estimate	-1.9
Confidence interval	
level	95 %
sides	2-sided
lower limit	-3
upper limit	-0.9

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description: Week 24	
Comparison groups	Placebo v Nemolizumab (30 mg)

Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Kenward Roger
Parameter estimate	Mean difference (final values)
Point estimate	-2.6
Confidence interval	
level	95 %
sides	2-sided
lower limit	-3.6
upper limit	-1.6

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description:	
Week 24	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Kenward Roger
Parameter estimate	Mean difference (final values)
Point estimate	-2.1
Confidence interval	
level	95 %
sides	2-sided
lower limit	-3.1
upper limit	-1.1

Secondary: Percentage Change From Baseline in Weekly Average of the Average Pruritus Numeric Rating Scale (NRS) at Each Visit up to Week 24

End point title	Percentage Change From Baseline in Weekly Average of the Average Pruritus Numeric Rating Scale (NRS) at Each Visit up to Week 24

End point description:

Pruritus NRS is a scale to be used by the participants to report the intensity of their pruritus (itch) during the last 24 hours. For average itch intensity: the scores were provided on a scale of 0 to 10, with 0 being 'no itch' and 10 being 'worst itch imaginable'. Higher scores indicate worse outcome.

Note: n=number of subjects in analysis.
Week 1 n: 56, 52, 53,52; Week 2 n: 54, 50, 55, 50; Week 4 n: 55, 50, 53, 50; Week 8 n: 53, 45, 54,47; Week 12 n: 43, 43, 52, 43; Week 16 n: 39, 41, 52, 42; Week 20 n: 36, 40, 47, 38; Week 24 n: 32, 33, 36, 31.

End point type	Secondary

End point timeframe:

Baseline to Week 24

End point values	Placebo	Nemolizumab (10 mg)	Nemolizumab (30 mg)	Nemolizumab (90 mg)
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	57	55	57	57
Units: Percentage of change				
arithmetic mean (standard deviation)				
Week 1	-11.0 (± 16.33)	-24.6 (± 23.39)	-29.4 (± 28.24)	-23.2 (± 22.63)
Week 2	-14.6 (± 23.01)	-39.9 (± 29.89)	-45.2 (± 25.06)	-40.4 (± 33.77)
Week 4	-19.7 (± 22.48)	-43.5 (± 31.66)	-55.8 (± 27.60)	-48.2 (± 33.16)
Week 8	-26.9 (± 25.34)	-52.0 (± 29.50)	-65.1 (± 24.67)	-61.5 (± 28.03)
Week 12	-30.9 (± 31.63)	-61.7 (± 30.02)	-72.2 (± 25.36)	-60.1 (± 29.77)
Week 16	-40.2 (± 31.73)	-66.8 (± 27.02)	-73.9 (± 22.83)	-67.1 (± 31.64)
Week 20	-42.7 (± 32.43)	-67.5 (± 30.03)	-74.5 (± 24.85)	-70.6 (± 29.39)
Week 24	-47.7 (± 32.60)	-68.7 (± 30.60)	-69.9 (± 35.76)	-70.5 (± 26.41)

Statistical analyses

Statistical analysis title	Placebo vs Nemolizumab (10 mg)
Statistical analysis description: Week 24	
Comparison groups	Placebo v Nemolizumab (10 mg)
Number of subjects included in analysis	112
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Kenward Roger
Parameter estimate	mean difference of percentage changes
Point estimate	-23.8
Confidence interval	
level	95 %
sides	2-sided
lower limit	-37.7
upper limit	-9.9

Statistical analysis title	Placebo vs Nemolizumab (30 mg)
Statistical analysis description: Week 24	
Comparison groups	Placebo v Nemolizumab (30 mg)

Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Kenward Roger]
Parameter estimate	mean difference of percentage changes]
Point estimate	-31.4
Confidence interval	
level	95 %
sides	2-sided
lower limit	-45
upper limit	-17.7

Statistical analysis title	Placebo vs Nemolizumab (90 mg)
Statistical analysis description:	
Week 24	
Comparison groups	Placebo v Nemolizumab (90 mg)
Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Kenward Roger
Parameter estimate	mean difference of percentage changes
Point estimate	-29.2
Confidence interval	
level	95 %
sides	2-sided
lower limit	-43.2
upper limit	-15.2

Adverse events

Adverse events information

Timeframe for reporting adverse events:

From screening to Follow-up visit (Week 32)/Early termination visit

Adverse event reporting additional description:

An AE is any untoward medical occurrence in a subject administered a pharmaceutical product, regardless of the causal relationship with this treatment. An AE can therefore be any unfavorable and unintended sign, symptom, or disease temporally associated with the use of a medicinal product, whether or not related to the product.

Assessment type	Non-systematic

Dictionary used

Dictionary name	MedDRA
Dictionary version	19

Reporting groups

Reporting group title	Placebo

Reporting group description:

Randomized participants received Nemolizumab placebo subcutaneous injection every 4 weeks during 24 week treatment period (last injection at week 20). As background therapy a medium potency TCS (mometasone furoate 0.1% cream or hydrocortisone butyrate 0.1% cream) was used for the body and a low potency TCS (hydrocortisone acetate 0.05-1% cream or desonide 0.05% cream) was used for areas where medium potency TCS are considered unsafe.

Reporting group title	Nemolizumab (10 mg)

Reporting group description:

Randomized participants received Nemolizumab subcutaneous injection every 4 weeks during 24 week treatment period (last injection at week 20) with a loading dose of 20 mg. As background therapy a medium potency TCS (mometasone furoate 0.1% cream or hydrocortisone butyrate 0.1% cream) was used for the body and a low potency TCS (hydrocortisone acetate 0.05-1% cream or desonide 0.05% cream) was used for areas where medium potency TCS are considered unsafe.

Reporting group title	Nemolizumab (30 mg)

Reporting group description:

Randomized participants received Nemolizumab subcutaneous injection every 4 weeks during 24 week treatment period (last injection at week 20) with a loading dose of 60 mg. As background therapy a medium potency TCS (mometasone furoate 0.1% cream or hydrocortisone butyrate 0.1% cream) was used for the body and a low potency TCS (hydrocortisone acetate 0.05-1% cream or desonide 0.05% cream) was used for areas where medium potency TCS are considered unsafe.

Reporting group title	Nemolizumab (90 mg)

Reporting group description:

Randomized participants received Nemolizumab subcutaneous injection every 4 weeks during 24 week treatment period (last injection at week 20). As background therapy a medium potency TCS (mometasone furoate 0.1% cream or hydrocortisone butyrate 0.1% cream) was used for the body and a low potency TCS (hydrocortisone acetate 0.05-1% cream or desonide 0.05% cream) was used for areas where medium potency TCS are considered unsafe.

Serious adverse events	Placebo	Nemolizumab (10 mg)	Nemolizumab (30 mg)
Total subjects affected by serious adverse events			
subjects affected / exposed	1 / 56 (1.79%)	3 / 55 (5.45%)	2 / 57 (3.51%)
number of deaths (all causes)	0	1	0
number of deaths resulting from adverse events	0	0	0

Vascular disorders			
Hypertension			
subjects affected / exposed	1 / 56 (1.79%)	0 / 55 (0.00%)	0 / 57 (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
Cardiac disorders			
Cardio-respiratory arrest			
subjects affected / exposed	0 / 56 (0.00%)	1 / 55 (1.82%)	0 / 57 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 1	0 / 0
General disorders and administration site conditions			
Asthenia			
subjects affected / exposed	0 / 56 (0.00%)	1 / 55 (1.82%)	0 / 57 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Respiratory, thoracic and mediastinal disorders			
Pneumonia aspiration			
subjects affected / exposed	0 / 56 (0.00%)	1 / 55 (1.82%)	0 / 57 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 1	0 / 0
Skin and subcutaneous tissue disorders			
Dermatitis atopic			
subjects affected / exposed	0 / 56 (0.00%)	1 / 55 (1.82%)	1 / 57 (1.75%)
occurrences causally related to treatment / all	0 / 0	1 / 1	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Psychiatric disorders			
Post-traumatic amnestic disorder			
subjects affected / exposed	0 / 56 (0.00%)	1 / 55 (1.82%)	0 / 57 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Infections and infestations			
Cellulitis			
subjects affected / exposed	0 / 56 (0.00%)	0 / 55 (0.00%)	1 / 57 (1.75%)
occurrences causally related to treatment / all	0 / 0	0 / 0	1 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

Septic shock			
subjects affected / exposed	0 / 56 (0.00%)	0 / 55 (0.00%)	0 / 57 (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
Staphylococcal sepsis			
subjects affected / exposed	0 / 56 (0.00%)	1 / 55 (1.82%)	0 / 57 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Urinary tract infection			
subjects affected / exposed	0 / 56 (0.00%)	0 / 55 (0.00%)	0 / 57 (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	Nemolizumab (90 mg)		
Total subjects affected by serious adverse events			
subjects affected / exposed	2 / 57 (3.51%)		
number of deaths (all causes)	0		
number of deaths resulting from adverse events	0		
Vascular disorders			
Hypertension			
subjects affected / exposed	0 / 57 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Cardiac disorders			
Cardio-respiratory arrest			
subjects affected / exposed	0 / 57 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
General disorders and administration site conditions			
Asthenia			
subjects affected / exposed	0 / 57 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Respiratory, thoracic and mediastinal disorders			

Pneumonia aspiration			
subjects affected / exposed	0 / 57 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
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		
Psychiatric disorders			
Post-traumatic amnestic disorder			
subjects affected / exposed	0 / 57 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Infections and infestations			
Cellulitis			
subjects affected / exposed	0 / 57 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Septic shock			
subjects affected / exposed	1 / 57 (1.75%)		
occurrences causally related to treatment / all	1 / 1		
deaths causally related to treatment / all	0 / 0		
Staphylococcal sepsis			
subjects affected / exposed	0 / 57 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Urinary tract infection			
subjects affected / exposed	1 / 57 (1.75%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		

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

Non-serious adverse events	Placebo	Nemolizumab (10 mg)	Nemolizumab (30 mg)
Total subjects affected by non-serious adverse events			
subjects affected / exposed	43 / 56 (76.79%)	47 / 55 (85.45%)	47 / 57 (82.46%)
Investigations			
Blood creatine phosphokinase increased			
subjects affected / exposed	4 / 56 (7.14%)	2 / 55 (3.64%)	1 / 57 (1.75%)
occurrences (all)	4	3	1
Nervous system disorders			
Headache			
subjects affected / exposed	7 / 56 (12.50%)	7 / 55 (12.73%)	4 / 57 (7.02%)
occurrences (all)	8	10	5
General disorders and administration site conditions			
Pyrexia			
subjects affected / exposed	0 / 56 (0.00%)	1 / 55 (1.82%)	1 / 57 (1.75%)
occurrences (all)	0	1	1
Gastrointestinal disorders			
Diarrhoea			
subjects affected / exposed	3 / 56 (5.36%)	3 / 55 (5.45%)	3 / 57 (5.26%)
occurrences (all)	4	3	3
Nausea			
subjects affected / exposed	3 / 56 (5.36%)	4 / 55 (7.27%)	1 / 57 (1.75%)
occurrences (all)	3	4	2
Abdominal pain			
subjects affected / exposed	1 / 56 (1.79%)	1 / 55 (1.82%)	3 / 57 (5.26%)
occurrences (all)	1	1	3
Respiratory, thoracic and mediastinal disorders			
Asthma			
subjects affected / exposed	1 / 56 (1.79%)	2 / 55 (3.64%)	7 / 57 (12.28%)
occurrences (all)	1	3	8
Cough			
subjects affected / exposed	2 / 56 (3.57%)	1 / 55 (1.82%)	3 / 57 (5.26%)
occurrences (all)	2	1	6
Skin and subcutaneous tissue disorders			
Dermatitis atopic			
subjects affected / exposed	18 / 56 (32.14%)	11 / 55 (20.00%)	13 / 57 (22.81%)
occurrences (all)	21	13	15

Dry skin			
subjects affected / exposed	0 / 56 (0.00%)	0 / 55 (0.00%)	3 / 57 (5.26%)
occurrences (all)	0	0	3
Musculoskeletal and connective tissue disorders			
Back pain			
subjects affected / exposed	2 / 56 (3.57%)	1 / 55 (1.82%)	3 / 57 (5.26%)
occurrences (all)	2	1	3
Arthralgia			
subjects affected / exposed	1 / 56 (1.79%)	1 / 55 (1.82%)	3 / 57 (5.26%)
occurrences (all)	1	4	4
Infections and infestations			
Nasopharyngitis			
subjects affected / exposed	12 / 56 (21.43%)	18 / 55 (32.73%)	14 / 57 (24.56%)
occurrences (all)	19	22	18
Upper respiratory tract infection			
subjects affected / exposed	1 / 56 (1.79%)	4 / 55 (7.27%)	6 / 57 (10.53%)
occurrences (all)	1	5	6
Sinusitis			
subjects affected / exposed	0 / 56 (0.00%)	4 / 55 (7.27%)	3 / 57 (5.26%)
occurrences (all)	0	4	3
Gastroenteritis			
subjects affected / exposed	1 / 56 (1.79%)	0 / 55 (0.00%)	3 / 57 (5.26%)
occurrences (all)	1	0	3
Oral herpes			
subjects affected / exposed	1 / 56 (1.79%)	2 / 55 (3.64%)	1 / 57 (1.75%)
occurrences (all)	1	2	3
Urinary tract infection			
subjects affected / exposed	3 / 56 (5.36%)	3 / 55 (5.45%)	1 / 57 (1.75%)
occurrences (all)	5	3	1
Rhinitis			
subjects affected / exposed	3 / 56 (5.36%)	0 / 55 (0.00%)	3 / 57 (5.26%)
occurrences (all)	4	0	3
Folliculitis			
subjects affected / exposed	2 / 56 (3.57%)	0 / 55 (0.00%)	3 / 57 (5.26%)
occurrences (all)	3	0	3

Non-serious adverse events	Nemolizumab (90 mg)		
Total subjects affected by non-serious adverse events subjects affected / exposed	47 / 57 (82.46%)		
Investigations Blood creatine phosphokinase increased subjects affected / exposed occurrences (all)	1 / 57 (1.75%) 1		
Nervous system disorders Headache subjects affected / exposed occurrences (all)	5 / 57 (8.77%) 6		
General disorders and administration site conditions Pyrexia subjects affected / exposed occurrences (all)	3 / 57 (5.26%) 3		
Gastrointestinal disorders Diarrhoea subjects affected / exposed occurrences (all) Nausea subjects affected / exposed occurrences (all) Abdominal pain subjects affected / exposed occurrences (all)	1 / 57 (1.75%) 1 1 / 57 (1.75%) 1 0 / 57 (0.00%) 0		
Respiratory, thoracic and mediastinal disorders Asthma subjects affected / exposed occurrences (all) Cough subjects affected / exposed occurrences (all)	10 / 57 (17.54%) 12 2 / 57 (3.51%) 2		
Skin and subcutaneous tissue disorders Dermatitis atopic subjects affected / exposed occurrences (all)	16 / 57 (28.07%) 18		

Dry skin			
subjects affected / exposed	0 / 57 (0.00%)		
occurrences (all)	0		
Musculoskeletal and connective tissue disorders			
Back pain			
subjects affected / exposed	2 / 57 (3.51%)		
occurrences (all)	2		
Arthralgia			
subjects affected / exposed	0 / 57 (0.00%)		
occurrences (all)	0		
Infections and infestations			
Nasopharyngitis			
subjects affected / exposed	13 / 57 (22.81%)		
occurrences (all)	17		
Upper respiratory tract infection			
subjects affected / exposed	4 / 57 (7.02%)		
occurrences (all)	4		
Sinusitis			
subjects affected / exposed	1 / 57 (1.75%)		
occurrences (all)	1		
Gastroenteritis			
subjects affected / exposed	4 / 57 (7.02%)		
occurrences (all)	4		
Oral herpes			
subjects affected / exposed	3 / 57 (5.26%)		
occurrences (all)	4		
Urinary tract infection			
subjects affected / exposed	1 / 57 (1.75%)		
occurrences (all)	1		
Rhinitis			
subjects affected / exposed	1 / 57 (1.75%)		
occurrences (all)	2		
Folliculitis			
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
23 October 2017	To provide clarity to the definition of severe pruritus, inclusion criterion 17 was amended to utilize a single scale, pruritus NRS, for study entry. To qualify for inclusion, the average of pruritus NRS for the maximum intensity had to be ≥7 during the 7 days prior to the Baseline Visit. The PCS measurement was still recorded but was not used to determine the subject's eligibility.
01 June 2018	Jonathan Silverberg, MD was designated as the Coordinating Investigator pursuant to the European Agency for the Evaluation of Medicinal Products guidance on "Coordinating Investigator Signature of Clinical Trial Reports".

Notes:

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

None reported