



Clinical trial results:

A Multicenter, Randomized, Double-Blind Study Comparing the Efficacy and Safety of Ixekizumab Versus Placebo in Patients with Moderate-to-Severe Genital Psoriasis

Summary

EudraCT number	2015-002628-14
Trial protocol	NL AT BE
Global end of trial date	21 February 2018

Results information

Result version number	v1 (current)
This version publication date	01 March 2019
First version publication date	01 March 2019

Trial information

Trial identification

Sponsor protocol code	I1F-MC-RHBQ
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Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT02718898
WHO universal trial number (UTN)	-
Other trial identifiers	Eli Lilly and Company: 16010

Notes:

Sponsors

Sponsor organisation name	Eli Lilly and Company
Sponsor organisation address	Lilly Corporate Center, Indianapolis, IN, United States, 46285
Public contact	Available Mon Fri 9 AM 5 PM EST, Eli Lilly and Company, 1 877CTLilly,
Scientific contact	Available Mon Fri 9 AM 5 PM EST, Eli Lilly and Company, 1 8772854559,

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	21 February 2018
Is this the analysis of the primary completion data?	No
Global end of trial reached?	Yes
Global end of trial date	21 February 2018
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

The main purpose of this study is to evaluate the efficacy and safety of the study drug ixekizumab compared to placebo in participants with moderate-to-severe genital psoriasis.

Protection of trial subjects:

This study was conducted in accordance with International Conference on Harmonization (ICH) Good Clinical Practice, and the principles of the Declaration of Helsinki, in addition to following the laws and regulations of the country or countries in which a study is conducted.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	05 May 2016
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	Canada: 29
Country: Number of subjects enrolled	Puerto Rico: 11
Country: Number of subjects enrolled	Austria: 8
Country: Number of subjects enrolled	Netherlands: 5
Country: Number of subjects enrolled	Turkey: 7
Country: Number of subjects enrolled	Belgium: 7
Country: Number of subjects enrolled	United States: 62
Country: Number of subjects enrolled	Australia: 20
Worldwide total number of subjects	149
EEA total number of subjects	20

Notes:

Subjects enrolled per age group

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

Children (2-11 years)	0
Adolescents (12-17 years)	0
Adults (18-64 years)	138
From 65 to 84 years	11
85 years and over	0

Subject disposition

Recruitment

Recruitment details: -

Pre-assignment

Screening details:

12 week Blinded Treatment period, followed by 40 week Open Label Treatment Period, followed by 12 week Post treatment follow-up period.

Period 1

Period 1 title	Blinded Treatment period
Is this the baseline period?	Yes
Allocation method	Randomised - controlled
Blinding used	Double blind
Roles blinded	Subject, Investigator

Arms

Are arms mutually exclusive?	Yes
Arm title	Placebo - Blinded Treatment

Arm description:

Participants received placebo subcutaneously at baseline and every 2 weeks (Q2W) from week 2 to week 10. At week 12, 160 mg Ixekizumab was given by Subcutaneous injection during blinded treatment period.

Arm type	Placebo
Investigational medicinal product name	Ixekizumab
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection
Routes of administration	Subcutaneous use

Dosage and administration details:

At week 12, subjects received 160 mg Ixekizumab by SC injection.

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

Dosage and administration details:

Subjects received placebo at baseline and every 2 weeks from week 2 to 10 by subcutaneous injection.

Arm title	Ixekizumab 80mg Q2W - Blinded Treatment
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Arm description:

Participants received 160 milligrams (mg) Ixekizumab subcutaneously (SC) at baseline followed by 80mg Ixekizumab every 2 weeks (Q2W) from week 2 to week 10. At week 12, 80mg Ixekizumab and placebo was given SC during blinded treatment period.

Arm type	Placebo
Investigational medicinal product name	Ixekizumab
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection
Routes of administration	Subcutaneous use

Dosage and administration details:

Participants received 160 milligrams (mg) Ixekizumab subcutaneously (SC) at baseline followed by 80mg Ixekizumab every 2 weeks (Q2W) from week 2 to week 10. At week 12, 80mg Ixekizumab and placebo was given SC during blinded treatment period.

Number of subjects in period 1	Placebo - Blinded Treatment	Ixekizumab 80mg Q2W - Blinded Treatment
Started	74	75
Completed	65	74
Not completed	9	1
Physician decision	1	-
Adverse event, non-fatal	5	1
Lost to follow-up	2	-
Lack of efficacy	1	-

Period 2

Period 2 title	Open Label Treatment Period
Is this the baseline period?	No
Allocation method	Randomised - controlled
Blinding used	Double blind
Roles blinded	Subject, Investigator

Arms

Are arms mutually exclusive?	Yes
Arm title	Placebo/Ixekizumab 80mg Q4W - Open label treatment period

Arm description:

Participants who received placebo in blinded treatment Period had received initial dose of 160mg Ixekizumab at week 12 followed by 80mg Ixekizumab Q4W by subcutaneous injection in open label treatment period.

Participants had an option to step-up to Q2W dosing starting at week 24 through week 40.

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

Dosage and administration details:

Participants received 160mg Ixekizumab at week 12 followed by 80mg Ixekizumab Q4W by subcutaneous injection.

Arm title	Ixekizumab 80mg Q2W/Ixekizumab 80mg Q4W - Open label treatment
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Arm description:

Participants who received Ixekizumab in blinded treatment Period had received initial dose of 80mg Ixekizumab & placebo at week 12 followed by 80mg Ixekizumab Q4W by subcutaneous injection in open label treatment period.

Participants had an option to step-up to Q2W dosing starting at week 24 through week 40.

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

Dosage and administration details:

Participants received 80mg Ixekizumab & placebo at week 12 followed by 80mg Ixekizumab Q4W by subcutaneous injection.

Number of subjects in period 2	Placebo/Ixekizumab 80mg Q4W - Open label treatment period	Ixekizumab 80mg Q2W/Ixekizumab 80mg Q4W - Open label treatment
Started	65	74
Completed	62	64
Not completed	3	10
Consent withdrawn by subject	1	3
Subject discontinued in OLTP	-	1
Adverse event, non-fatal	1	1
Treatment of undisclosed addiction- Pt withdrew	-	1
Lost to follow-up	-	2
Lack of efficacy	1	2

Period 3

Period 3 title	Post treatment follow-up period
Is this the baseline period?	No
Allocation method	Randomised - controlled
Blinding used	Double blind
Roles blinded	Subject, Investigator

Arms

Are arms mutually exclusive?	No
Arm title	Placebo - Post treatment follow-up

Arm description:

Participants did not receive any study treatment during post treatment follow-up period.

Arm type	No intervention
No investigational medicinal product assigned in this arm	

Arm title	Ixekizumab 80mg Q4W - Post treatment follow-up period
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Arm description:

Participants did not receive any study treatment during post treatment follow-up period.

Arm type	No intervention
No investigational medicinal product assigned in this arm	

Arm title	Ixekizumab 80mg Q2W - Post treatment follow-up
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Arm description:

Participants did not receive any study treatment during post treatment follow-up period.

Arm type No intervention

No investigational medicinal product assigned in this arm

Number of subjects in period 3	Placebo - Post treatment follow-up	Ixekizumab 80mg Q4W - Post treatment follow-up period	Ixekizumab 80mg Q2W - Post treatment follow-up
Started	1	78	49
Completed	0	67	44
Not completed	1	11	5
Consent withdrawn by subject	-	5	3
Adverse event, non-fatal	-	1	1
Lost to follow-up	1	5	1

Baseline characteristics

Reporting groups

Reporting group title	Placebo - Blinded Treatment
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Reporting group description:

Participants received placebo subcutaneously at baseline and every 2 weeks (Q2W) from week 2 to week 10. At week 12, 160 mg Ixekizumab was given by Subcutaneous injection during blinded treatment period.

Reporting group title	Ixekizumab 80mg Q2W - Blinded Treatment
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Reporting group description:

Participants received 160 milligrams (mg) Ixekizumab subcutaneously (SC) at baseline followed by 80mg Ixekizumab every 2 weeks (Q2W) from week 2 to week 10. At week 12, 80mg Ixekizumab and placebo was given SC during blinded treatment period.

Reporting group values	Placebo - Blinded Treatment	Ixekizumab 80mg Q2W - Blinded Treatment	Total
Number of subjects	74	75	149
Age categorical Units: Subjects			
In utero			0
Preterm newborn infants (gestational age < 37 wks)			0
Newborns (0-27 days)			0
Infants and toddlers (28 days-23 months)			0
Children (2-11 years)			0
Adolescents (12-17 years)			0
Adults (18-64 years)			0
From 65-84 years			0
85 years and over			0
Age continuous Units: years			
arithmetic mean	44.4	43.1	-
standard deviation	± 12.55	± 12.95	-
Gender categorical Units: Subjects			
Female	17	19	36
Male	57	56	113
Ethnicity Units: Subjects			
Hispanic or Latino	14	13	27
Not Hispanic or Latino	57	60	117
Unknown or Not Reported	3	2	5
Race Units: Subjects			
American Indian or Alaska Native	0	1	1
Asian	7	3	10
Native Hawaiian or Other Pacific Islander	0	0	0
Black or African American	2	0	2
White	64	67	131

More than one race	1	4	5
Unknown or Not Reported	0	0	0

sPGA of Genitalia			
The Static Physician Global Assessment (sPGA) of Genitalia score is based on a combination of erythema and the secondary features (plaque elevation and/or scale). For the analysis of responses, the participant's psoriasis is assessed as follows: 0 = clear,1 = minimal,2 = mild,3 = moderate,4 = severe,5 = very severe.			
Units: units on a scale			
arithmetic mean	3.5	3.4	
standard deviation	± 0.53	± 0.61	-

End points

End points reporting groups

Reporting group title	Placebo - Blinded Treatment
Reporting group description: Participants received placebo subcutaneously at baseline and every 2 weeks (Q2W) from week 2 to week 10. At week 12, 160 mg Ixekizumab was given by Subcutaneous injection during blinded treatment period.	
Reporting group title	Ixekizumab 80mg Q2W - Blinded Treatment
Reporting group description: Participants received 160 milligrams (mg) Ixekizumab subcutaneously (SC) at baseline followed by 80mg Ixekizumab every 2 weeks (Q2W) from week 2 to week 10. At week 12, 80mg Ixekizumab and placebo was given SC during blinded treatment period.	
Reporting group title	Placebo/Ixekizumab 80mg Q4W - Open label treatment period
Reporting group description: Participants who received placebo in blinded treatment Period had received initial dose of 160mg Ixekizumab at week 12 followed by 80mg Ixekizumab Q4W by subcutaneous injection in open label treatment period. Participants had an option to step-up to Q2W dosing starting at week 24 through week 40.	
Reporting group title	Ixekizumab 80mg Q2W/Ixekizumab 80mg Q4W - Open label treatment
Reporting group description: Participants who received Ixekizumab in blinded treatment Period had received initial dose of 80mg Ixekizumab & placebo at week 12 followed by 80mg Ixekizumab Q4W by subcutaneous injection in open label treatment period. Participants had an option to step-up to Q2W dosing starting at week 24 through week 40.	
Reporting group title	Placebo - Post treatment follow-up
Reporting group description: Participants did not receive any study treatment during post treatment follow-up period.	
Reporting group title	Ixekizumab 80mg Q4W - Post treatment follow-up period
Reporting group description: Participants did not receive any study treatment during post treatment follow-up period.	
Reporting group title	Ixekizumab 80mg Q2W - Post treatment follow-up
Reporting group description: Participants did not receive any study treatment during post treatment follow-up period.	

Primary: Number of Participants Achieving Static Physician Global Assessment (sPGA) of Genitalia (0,1)

End point title	Number of Participants Achieving Static Physician Global Assessment (sPGA) of Genitalia (0,1)
End point description: sPGA of Genitalia score is based on a combination of erythema and the secondary features (plaque elevation and/or scale) in genital area. For the analysis of responses, the participant's psoriasis was assessed as follows: 0 = clear, 1 = minimal, 2 = mild, 3 = moderate, 4 = severe, 5 = very severe. sPGA of Genitalia (0,1) : A sPGA of Genitalia assessed as either 0 or 1. APD: All randomized participants.	
End point type	Primary
End point timeframe: Week 12	

End point values	Placebo - Blinded Treatment	Ixekizumab 80mg Q2W - Blinded Treatment		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	74	75		
Units: participants	6	55		

Statistical analyses

Statistical analysis title	Statistical Analysis 1
Comparison groups	Placebo - Blinded Treatment v Ixekizumab 80mg Q2W - Blinded Treatment
Number of subjects included in analysis	149
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	33.8
Confidence interval	
level	95 %
sides	2-sided
lower limit	12.39
upper limit	92.23

Secondary: Number of Participants Achieving Overall sPGA (0,1)

End point title	Number of Participants Achieving Overall sPGA (0,1)
End point description:	<p>The overall sPGA is the physician's global assessment of the participant's psoriasis (Ps) lesions at a given time point. Plaques were assessed for induration, erythema, and scaling, and an overall rating of psoriasis severity was given using the anchors of 0 = clear, 1 = minimal, 2 = mild, 3 = moderate, 4 = severe, 5 = very severe.</p> <p>Overall sPGA (0,1) : An overall sPGA assessed as either 0 or 1.</p>
APD:All randomized participants.	
End point type	Secondary
End point timeframe:	
Week 12	

End point values	Placebo - Blinded Treatment	Ixekizumab 80mg Q2W - Blinded Treatment		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	74	75		
Units: participants	2	55		

Statistical analyses

Statistical analysis title	Statistical Analysis 1
Comparison groups	Placebo - Blinded Treatment v Ixekizumab 80mg Q2W - Blinded Treatment
Number of subjects included in analysis	149
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	102.55
Confidence interval	
level	95 %
sides	2-sided
lower limit	22.79
upper limit	461.43

Secondary: Number of Participants with at Least a 3 Point Improvement in Genital Psoriasis Itch Numeric Rating Scale (NRS) Item within the Genital Psoriasis Symptom Scale (GPSS)

End point title	Number of Participants with at Least a 3 Point Improvement in Genital Psoriasis Itch Numeric Rating Scale (NRS) Item within the Genital Psoriasis Symptom Scale (GPSS)
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End point description:

GPSS is a participant-administered assessment of 8 symptoms: itch, pain, discomfort, stinging, burning, redness, scaling, and cracking. Each respondent was asked to answer the questions based on the psoriasis symptoms in his or her genital area. The overall severity for each individual genital psoriasis symptom is indicated by selecting the number from an Numeric Rating Scale (NRS) of 0 to 10 that best describes the worst level of each symptom in the genital area in the past 24 hours, where 0 (= no severity) and 10 (worst imaginable severity).

APD: All randomized participants with baseline GPSS Itch NRS Score ≥ 3 .

End point type	Secondary
End point timeframe:	
Week 12	

End point values	Placebo - Blinded Treatment	Ixekizumab 80mg Q2W - Blinded Treatment		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	60	62		
Units: participants	5	37		

Statistical analyses

Statistical analysis title	Statistical Analysis 1
Comparison groups	Placebo - Blinded Treatment v Ixekizumab 80mg Q2W - Blinded Treatment
Number of subjects included in analysis	122
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	16.27
Confidence interval	
level	95 %
sides	2-sided
lower limit	5.71
upper limit	46.4

Secondary: Number of Participants Whose Frequency of Sexual Activity is Never or Rarely Limited by Genital Psoriasis, Utilizing the Genital Psoriasis Sexual Frequency Questionnaire (SFQ) Item 2

End point title	Number of Participants Whose Frequency of Sexual Activity is Never or Rarely Limited by Genital Psoriasis, Utilizing the Genital Psoriasis Sexual Frequency Questionnaire (SFQ) Item 2
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End point description:

The SFQ is a participant reported outcome measure to evaluate the impact of genital psoriasis symptoms on sexual frequency. It consists of 2 items that assess the impact of genital psoriasis symptoms on the frequency of sexual activity. Respondents were asked to answer the questions based on their psoriasis symptoms in the genital area. Item 2 assesses how often genital psoriasis symptoms limited the frequency of sexual activity with the following response options: 0 = never, 1 = rarely, 2 = sometimes, 3 = often, 4 = always.

*The SFQ is also referred to as the GenPs-SFQ (genital psoriasis sexual frequency questionnaire).

APD:All randomized participants with baseline GenPs-SFQ Item 2 Score >= 2.

End point type	Secondary
End point timeframe:	
Week 12	

End point values	Placebo - Blinded Treatment	Ixekizumab 80mg Q2W - Blinded Treatment		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	42	37		
Units: participants	9	29		

Statistical analyses

Statistical analysis title	Statistical Analysis 1
Comparison groups	Placebo - Blinded Treatment v Ixekizumab 80mg Q2W - Blinded Treatment
Number of subjects included in analysis	79
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	13.57
Confidence interval	
level	95 %
sides	2-sided
lower limit	4.57
upper limit	40.29

Secondary: Number of Participants whose Frequency of Avoiding Sexual Activity is Either Never or Rarely Limited by Genital Psoriasis in the Sexual Activity Avoidance Subscale Score of the Genital Psoriasis Sexual Impact Scale (GPSIS)

End point title	Number of Participants whose Frequency of Avoiding Sexual Activity is Either Never or Rarely Limited by Genital Psoriasis in the Sexual Activity Avoidance Subscale Score of the Genital Psoriasis Sexual Impact Scale (GPSIS)
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End point description:

GPSIS is a participant reported outcome measure to evaluate the impact of genital psoriasis symptoms on sexual activity.

The GPSIS Sexual Activity Avoidance Subscale includes 2 items:

Item 1 asks whether the participant has been sexually active in the past week. (No due to other reasons = 1, No due to genital Ps = 5)

Item 2 asks how often the participant avoided sexual activity in the past week due to Genital Psoriasis. (Never = 1, rarely = 2, Sometimes = 3, Often = 4).

APD: All randomized participants with baseline GPSIS sexual activity avoidance subscale score ≥ 3 .

End point type	Secondary
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End point timeframe:

Week 12

End point values	Placebo - Blinded Treatment	Ixekizumab 80mg Q2W - Blinded Treatment		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	35	30		
Units: participants	9	23		

Statistical analyses

Statistical analysis title	Statistical Analysis 1
Comparison groups	Placebo - Blinded Treatment v Ixekizumab 80mg Q2W - Blinded Treatment
Number of subjects included in analysis	65
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	9.84
Confidence interval	
level	95 %
sides	2-sided
lower limit	3.08
upper limit	31.4

Secondary: Change from Baseline in Dermatology Life Quality Index (DLQI) Total Score

End point title	Change from Baseline in Dermatology Life Quality Index (DLQI) Total Score
End point description:	<p>DLQI is a simple, participant-administered, 10 question, validated, quality-of-life questionnaire that covers 6 domains: 1) Symptoms and feelings 2) Daily activities 3) Leisure 4) Work and school 5) Personal relationships 6) Treatment.</p> <p>Response categories include: 0 = not at all; 1 = a little; 2 = a lot; 3 = very much; "not relevant" responses scored as "0" and total score range of 0 to 30; higher scores indicate poor quality of life.</p> <p>Least Square (LS) Mean was calculated using Mixed Model Repeated Measures (MMRM) model with treatment, baseline body surface area (BSA) category, baseline value, visit, treatment-by-visit, and baseline value-by-visit interactions as fixed effects.</p> <p>APD:All randomized participants with baseline and post baseline observation for DLQI.</p>
End point type	Secondary
End point timeframe:	
Baseline, Week 12	

End point values	Placebo - Blinded Treatment	Ixekizumab 80mg Q2W - Blinded Treatment		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	70	74		
Units: units on a scale				
least squares mean (standard error)	-1.4 (± 0.62)	-9.7 (± 0.59)		

Statistical analyses

Statistical analysis title	Statistical Analysis 1
Comparison groups	Placebo - Blinded Treatment v Ixekizumab 80mg Q2W - Blinded Treatment
Number of subjects included in analysis	144
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-8.4
Confidence interval	
level	95 %
sides	2-sided
lower limit	-10.1
upper limit	-6.7
Variability estimate	Standard error of the mean
Dispersion value	0.86

Secondary: Change from Baseline in Modified Genital Psoriasis Area and Severity Index (mGPASI) Score

End point title	Change from Baseline in Modified Genital Psoriasis Area and Severity Index (mGPASI) Score
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End point description:

mGPASI determines participants psoriasis severity in the genital region at a given time point yielding an overall score of 0 for no psoriasis to 72 for the most severe disease. scoring index incorporates the degree of erythema (or redness), induration (or thickness), and scaling) of the genital plaques as well as erosion, fissure, and/or ulcer as a product of the genital area involved. LS Mean was calculated using MMRM model with treatment, baseline BSA category, baseline value, visit, treatment-by-visit, and baseline value-by-visit interactions as fixed effects.

APD:All randomized participants with baseline and post baseline observation for mGPASI.

End point type	Secondary
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End point timeframe:

Baseline, Week 12

End point values	Placebo - Blinded Treatment	Ixekizumab 80mg Q2W - Blinded Treatment		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	73	74		
Units: units on a scale				
least squares mean (standard error)	-3.9 (± 1.56)	-23.9 (± 1.48)		

Statistical analyses

Statistical analysis title	Statistical Analysis 1
Comparison groups	Placebo - Blinded Treatment v Ixekizumab 80mg Q2W - Blinded Treatment
Number of subjects included in analysis	147
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-20
Confidence interval	
level	95 %
sides	2-sided
lower limit	-24.3
upper limit	-15.8
Variability estimate	Standard error of the mean
Dispersion value	2.15

Secondary: Number of Participants with at least a 2-Point Change in Patient's Global Assessment of Genital Psoriasis (PatGA-Genital)

End point title	Number of Participants with at least a 2-Point Change in Patient's Global Assessment of Genital Psoriasis (PatGA-Genital)
End point description:	<p>Patient's Global Assessment of Genital Psoriasis (PatGA-Genital) is a participant-administered, single-item scale on which participants are asked to rank the severity of their genital psoriasis "today" by circling a number on a 0 to 5 NRS, as follows: from 0 (clear), no genital psoriasis; to 5 (severe).</p> <p>APD: All randomized participants with baseline PatGA-Genital score ≥ 2.</p>
End point type	Secondary
End point timeframe:	
Week 12	

End point values	Placebo - Blinded Treatment	Ixekizumab 80mg Q2W - Blinded Treatment		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	73	72		
Units: participants	11	51		

Statistical analyses

Statistical analysis title	Statistical Analysis 1
Comparison groups	Placebo - Blinded Treatment v Ixekizumab 80mg Q2W - Blinded Treatment
Number of subjects included in analysis	145
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	13.95
Confidence interval	
level	95 %
sides	2-sided
lower limit	6.12
upper limit	31.8

Secondary: Change from Baseline on the Short-Form Health Survey (SF-36) Physical Component Summary (PCS)

End point title	Change from Baseline on the Short-Form Health Survey (SF-36) Physical Component Summary (PCS)
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End point description:

SF-36 is a participant-reported outcome measure evaluating a participant's health status. It comprises 36 items covering 8 domains: physical functioning, role physical, role emotional, bodily pain, vitality, social functioning, mental health, and general health. Items are answered on Likert scales of varying lengths. Items from 8 domains contribute to the PCS. The summary scores range from 0 to 100, with higher scores indicating better levels of function and/or better health.

LS Mean was calculated using ANCOVA model with treatment, baseline BSA category, & baseline value and mBOCF imputation method.

All randomized participants with baseline and post baseline measurement for SF-36 PCS.

mBOCF: Participants with or without post baseline measurement who discontinued treatment due to Adverse Event (AE) or death were imputed by their baseline observation , Participants who discontinued due to other reasons were imputed by their last observation.

End point type	Secondary
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End point timeframe:

Baseline, Week 12

End point values	Placebo - Blinded Treatment	Ixekizumab 80mg Q2W - Blinded Treatment		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	71	72		
Units: units on a scale				
least squares mean (standard error)	0.687 (\pm 0.7998)	5.193 (\pm 0.7942)		

Statistical analyses

Statistical analysis title	Statistical Analysis 1
Comparison groups	Placebo - Blinded Treatment v Ixekizumab 80mg Q2W - Blinded Treatment
Number of subjects included in analysis	143
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	ANCOVA
Parameter estimate	Mean difference (final values)
Point estimate	4.506
Confidence interval	
level	95 %
sides	2-sided
lower limit	2.264
upper limit	6.748
Variability estimate	Standard error of the mean
Dispersion value	1.1339

Secondary: Change from Baseline on the Short-Form Health Survey (SF-36) Mental Component Summary (MCS)

End point title	Change from Baseline on the Short-Form Health Survey (SF-36) Mental Component Summary (MCS)
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End point description:

SF-36 is a participant-reported outcome measure evaluating a participant's health status. It comprises 36 items covering 8 domains: physical functioning, role physical, role emotional, bodily pain, vitality, social functioning, mental health, and general health. Items are answered on Likert scales of varying lengths. Items from 8 domains contribute to the MCS. The summary scores range from 0 to 100, with higher scores indicating better levels of function and/or better health.

LS Mean was calculated using ANCOVA model with treatment, baseline BSA category, & baseline value and modified baseline observation carried forward (mBOCF) imputation method.

All randomized participants with baseline and post baseline measurement for SF-36 MCS.

mBOCF: Participants with or without post baseline measurement who discontinued treatment due to AE or death were imputed by their baseline observation, Participants who discontinued due to other reasons were imputed by their last observation.

End point type	Secondary
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End point timeframe:

Baseline, Week 12

End point values	Placebo - Blinded Treatment	Ixekizumab 80mg Q2W - Blinded Treatment		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	71	72		
Units: units on a scale				
least squares mean (standard error)	2.186 (\pm 0.7333)	3.982 (\pm 0.7281)		

Statistical analyses

Statistical analysis title	Statistical Analysis 1
Comparison groups	Placebo - Blinded Treatment v Ixekizumab 80mg Q2W - Blinded Treatment
Number of subjects included in analysis	143
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.085
Method	ANCOVA
Parameter estimate	Mean difference (final values)
Point estimate	1.797
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.253
upper limit	3.847
Variability estimate	Standard error of the mean
Dispersion value	1.0367

Secondary: Change from Baseline in Genital Psoriasis Symptom Scale (GPSS) Total Score and Individual Items

End point title	Change from Baseline in Genital Psoriasis Symptom Scale (GPSS) Total Score and Individual Items
End point description:	<p>GPSS is a participant's-administered assessment of 8 symptoms: itch, pain, discomfort, stinging, burning, redness, scaling, and cracking. Each respondent was asked to answer the questions based on the psoriasis symptoms in his or her genital area. The overall severity for each individual genital psoriasis symptom is indicated by selecting the number from an Numeric Rating Scale (NRS) of 0 to 10 that best describes the worst level of each symptom in the genital area in the past 24 hours, where 0 (no severity) and 10 (worst imaginable severity). total score ranges from 0 (no severity) - 80 (worst imaginable severity)</p> <p>LS Mean was calculated using MMRM model with treatment, baseline BSA category, baseline value, visit, treatment-by-visit, and baseline value-by-visit interactions as fixed effects.</p> <p>APD:All randomized participants with baseline and post baseline observation for GPSS total or individual item scores.</p>
End point type	Secondary

End point timeframe:

Baseline, Week 12

End point values	Placebo - Blinded Treatment	Ixekizumab 80mg Q2W - Blinded Treatment		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	66	69		
Units: units on a scale				
least squares mean (standard error)				
Total Score	-2.82 (± 2.190)	-31.57 (± 2.070)		
Itch	-0.21 (± 0.290)	-4.02 (± 0.274)		
Pain	-0.34 (± 0.294)	-3.84 (± 0.278)		
Discomfort	-0.42 (± 0.298)	-4.27 (± 0.282)		
Stinging	-0.51 (± 0.298)	-3.74 (± 0.281)		
Burning	-0.53 (± 0.289)	-3.73 (± 0.273)		
Redness	-0.63 (± 0.287)	-4.45 (± 0.272)		
Scaling	-0.02 (± 0.273)	-3.80 (± 0.259)		
Cracking	-0.19 (± 0.280)	-3.74 (± 0.264)		

Statistical analyses

Statistical analysis title	Statistical Analysis 1
Statistical analysis description:	
Total Score	
Comparison groups	Ixekizumab 80mg Q2W - Blinded Treatment v Placebo - Blinded Treatment
Number of subjects included in analysis	135
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-28.75
Confidence interval	
level	95 %
sides	2-sided
lower limit	-34.72
upper limit	-22.78
Variability estimate	Standard error of the mean
Dispersion value	3.015

Statistical analysis title	Statistical Analysis 2
Statistical analysis description: Itch	
Comparison groups	Placebo - Blinded Treatment v Ixekizumab 80mg Q2W - Blinded Treatment
Number of subjects included in analysis	135
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-3.81
Confidence interval	
level	95 %
sides	2-sided
lower limit	-4.6
upper limit	-3.02
Variability estimate	Standard error of the mean
Dispersion value	0.399

Statistical analysis title	Statistical Analysis 3
Statistical analysis description: Pain	
Comparison groups	Placebo - Blinded Treatment v Ixekizumab 80mg Q2W - Blinded Treatment
Number of subjects included in analysis	135
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-3.5
Confidence interval	
level	95 %
sides	2-sided
lower limit	-4.3
upper limit	-2.7
Variability estimate	Standard error of the mean
Dispersion value	0.405

Statistical analysis title	Statistical Analysis 4
Statistical analysis description: Discomfort	

Comparison groups	Placebo - Blinded Treatment v Ixekizumab 80mg Q2W - Blinded Treatment
Number of subjects included in analysis	135
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-3.85
Confidence interval	
level	95 %
sides	2-sided
lower limit	-4.66
upper limit	-3.04
Variability estimate	Standard error of the mean
Dispersion value	0.41

Statistical analysis title	Statistical Analysis 5
Statistical analysis description: Stinging	
Comparison groups	Placebo - Blinded Treatment v Ixekizumab 80mg Q2W - Blinded Treatment
Number of subjects included in analysis	135
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-3.23
Confidence interval	
level	95 %
sides	2-sided
lower limit	-4.04
upper limit	-2.42
Variability estimate	Standard error of the mean
Dispersion value	0.41

Statistical analysis title	Statistical Analysis 6
Statistical analysis description: Burning	
Comparison groups	Placebo - Blinded Treatment v Ixekizumab 80mg Q2W - Blinded Treatment

Number of subjects included in analysis	135
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-3.2
Confidence interval	
level	95 %
sides	2-sided
lower limit	-3.99
upper limit	-2.41
Variability estimate	Standard error of the mean
Dispersion value	0.397

Statistical analysis title	Statistical Analysis 7
Statistical analysis description:	
Redness	
Comparison groups	Placebo - Blinded Treatment v Ixekizumab 80mg Q2W - Blinded Treatment
Number of subjects included in analysis	135
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-3.81
Confidence interval	
level	95 %
sides	2-sided
lower limit	-4.59
upper limit	-3.03
Variability estimate	Standard error of the mean
Dispersion value	0.395

Statistical analysis title	Statistical Analysis 8
Statistical analysis description:	
Scaling	
Comparison groups	Placebo - Blinded Treatment v Ixekizumab 80mg Q2W - Blinded Treatment
Number of subjects included in analysis	135
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-3.78

Confidence interval	
level	95 %
sides	2-sided
lower limit	-4.53
upper limit	-3.03
Variability estimate	Standard error of the mean
Dispersion value	0.377

Statistical analysis title	Statistical Analysis 9
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Statistical analysis description:

Cracking

Comparison groups	Placebo - Blinded Treatment v Ixekizumab 80mg Q2W - Blinded Treatment
Number of subjects included in analysis	135
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-3.55
Confidence interval	
level	95 %
sides	2-sided
lower limit	-4.31
upper limit	-2.79
Variability estimate	Standard error of the mean
Dispersion value	0.385

Secondary: Number of Participants achieving sPGA of Genitalia (0,1) at Week 12 by Treatment-Emergent Anti-Drug Antibody (TE-ADA) status and by Neutralizing Antibody (NAb) status

End point title	Number of Participants achieving sPGA of Genitalia (0,1) at Week 12 by Treatment-Emergent Anti-Drug Antibody (TE-ADA) status and by Neutralizing Antibody (NAb) status
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End point description:

sPGA of Genitalia score is based on a combination of erythema and the secondary features (plaque elevation and/or scale). For the analysis of responses, the participant's psoriasis was assessed as follows: 0 = clear, 1 = minimal, 2 = mild, 3 = moderate, 4 = severe, 5 = very severe.

sPGA of Genitalia (0,1) : A sPGA of Genitalia assessed as either 0 or 1.

Analysis Population Description (APD): All randomized participants who received at least one dose of study drug and either had baseline and at least 1 post-baseline evaluable samples or had no evaluable baseline and all negative post-baseline anti-drug antibody negative samples.

End point type	Secondary
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End point timeframe:

Week 12

End point values	Placebo - Blinded Treatment	Ixekizumab 80mg Q2W - Blinded Treatment		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	73 ^[1]	75 ^[2]		
Units: participants				
TE-ADA positive	0	5		
TE-ADA negative	6	50		
NAb positive	0	0		
NAb negative	0	0		
NAb inconclusive	0	5		

Notes:

[1] - Subjects analyzed (N): 0,73,0,0,0,0;

[2] - Subjects analyzed (N): 6,69,0,0,0,6;

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information

Timeframe for reporting adverse events:

Entire Study

Adverse event reporting additional description:

I1F-MC-RHBQ

Assessment type	Systematic
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Dictionary used

Dictionary name	MedDRA
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Dictionary version	20.1
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Reporting groups

Reporting group title	Placebo
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Reporting group description: -

Reporting group title	Ixekizumab 80Q2W
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Reporting group description: -

Reporting group title	Placebo/Ixekizumab 80Q4W
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Reporting group description: -

Reporting group title	Ixekizumab 80Q2W/Ixekizumab 80Q4W
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Reporting group description: -

Reporting group title	Placebo Post-Treatment Follow-up
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Reporting group description: -

Reporting group title	Ixekizumab 80Q2W Post-Treatment Follow-up
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Reporting group description: -

Reporting group title	Ixekizumab 80Q4W Post-Treatment Follow-up
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Reporting group description: -

Serious adverse events	Placebo	Ixekizumab 80Q2W	Placebo/Ixekizumab 80Q4W
Total subjects affected by serious adverse events			
subjects affected / exposed	1 / 74 (1.35%)	0 / 75 (0.00%)	2 / 65 (3.08%)
number of deaths (all causes)	0	0	0
number of deaths resulting from adverse events	0	0	0
Injury, poisoning and procedural complications			
extradural haematoma			
alternative dictionary used: MedDRA 20.1			
subjects affected / exposed	0 / 74 (0.00%)	0 / 75 (0.00%)	1 / 65 (1.54%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Vascular disorders			
peripheral ischaemia			
alternative dictionary used: MedDRA 20.1			

subjects affected / exposed	0 / 74 (0.00%)	0 / 75 (0.00%)	0 / 65 (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
Reproductive system and breast disorders			
benign prostatic hyperplasia alternative dictionary used: MedDRA 20.1			
subjects affected / exposed ^[1]	0 / 74 (0.00%)	0 / 75 (0.00%)	0 / 49 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Gastrointestinal disorders			
colitis alternative dictionary used: MedDRA 20.1			
subjects affected / exposed	0 / 74 (0.00%)	0 / 75 (0.00%)	0 / 65 (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
pancreatitis acute alternative dictionary used: MedDRA 20.1			
subjects affected / exposed	1 / 74 (1.35%)	0 / 75 (0.00%)	0 / 65 (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
Hepatobiliary disorders			
cholelithiasis alternative dictionary used: MedDRA 20.1			
subjects affected / exposed	0 / 74 (0.00%)	0 / 75 (0.00%)	0 / 65 (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
Psychiatric disorders			
depression alternative dictionary used: MedDRA 20.1			
subjects affected / exposed	0 / 74 (0.00%)	0 / 75 (0.00%)	0 / 65 (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
suicide attempt alternative dictionary used: MedDRA 20.1			

subjects affected / exposed	0 / 74 (0.00%)	0 / 75 (0.00%)	0 / 65 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Renal and urinary disorders			
ureterolithiasis			
alternative dictionary used: MedDRA 20.1			
subjects affected / exposed	0 / 74 (0.00%)	0 / 75 (0.00%)	0 / 65 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Infections and infestations			
appendicitis			
alternative dictionary used: MedDRA 20.1			
subjects affected / exposed	0 / 74 (0.00%)	0 / 75 (0.00%)	0 / 65 (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
cellulitis			
alternative dictionary used: MedDRA 20.1			
subjects affected / exposed	0 / 74 (0.00%)	0 / 75 (0.00%)	1 / 65 (1.54%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
escherichia bacteraemia			
alternative dictionary used: MedDRA 20.1			
subjects affected / exposed	0 / 74 (0.00%)	0 / 75 (0.00%)	0 / 65 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
sepsis			
alternative dictionary used: MedDRA 20.1			
subjects affected / exposed	0 / 74 (0.00%)	0 / 75 (0.00%)	0 / 65 (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	Ixekizumab 80Q2W/Ixekizumab 80Q4W	Placebo Post-Treatment Follow-up	Ixekizumab 80Q2W Post-Treatment Follow-up
Total subjects affected by serious adverse events			

subjects affected / exposed	5 / 74 (6.76%)	0 / 1 (0.00%)	2 / 49 (4.08%)
number of deaths (all causes)	0	0	0
number of deaths resulting from adverse events	0	0	0
Injury, poisoning and procedural complications			
extradural haematoma			
alternative dictionary used: MedDRA 20.1			
subjects affected / exposed	0 / 74 (0.00%)	0 / 1 (0.00%)	0 / 49 (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
Vascular disorders			
peripheral ischaemia			
alternative dictionary used: MedDRA 20.1			
subjects affected / exposed	1 / 74 (1.35%)	0 / 1 (0.00%)	0 / 49 (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
Reproductive system and breast disorders			
benign prostatic hyperplasia			
alternative dictionary used: MedDRA 20.1			
subjects affected / exposed ^[1]	1 / 56 (1.79%)	0 / 1 (0.00%)	0 / 49 (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
Gastrointestinal disorders			
colitis			
alternative dictionary used: MedDRA 20.1			
subjects affected / exposed	1 / 74 (1.35%)	0 / 1 (0.00%)	0 / 49 (0.00%)
occurrences causally related to treatment / all	1 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
pancreatitis acute			
alternative dictionary used: MedDRA 20.1			
subjects affected / exposed	0 / 74 (0.00%)	0 / 1 (0.00%)	0 / 49 (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
Hepatobiliary disorders			
cholelithiasis			
alternative dictionary used: MedDRA 20.1			

subjects affected / exposed	1 / 74 (1.35%)	0 / 1 (0.00%)	0 / 49 (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
Psychiatric disorders			
depression			
alternative dictionary used: MedDRA 20.1			
subjects affected / exposed	0 / 74 (0.00%)	0 / 1 (0.00%)	0 / 49 (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
suicide attempt			
alternative dictionary used: MedDRA 20.1			
subjects affected / exposed	1 / 74 (1.35%)	0 / 1 (0.00%)	0 / 49 (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
Renal and urinary disorders			
ureterolithiasis			
alternative dictionary used: MedDRA 20.1			
subjects affected / exposed	1 / 74 (1.35%)	0 / 1 (0.00%)	0 / 49 (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
Infections and infestations			
appendicitis			
alternative dictionary used: MedDRA 20.1			
subjects affected / exposed	0 / 74 (0.00%)	0 / 1 (0.00%)	1 / 49 (2.04%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
cellulitis			
alternative dictionary used: MedDRA 20.1			
subjects affected / exposed	0 / 74 (0.00%)	0 / 1 (0.00%)	1 / 49 (2.04%)
occurrences causally related to treatment / all	0 / 0	0 / 0	1 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
escherichia bacteraemia			
alternative dictionary used: MedDRA 20.1			

subjects affected / exposed	1 / 74 (1.35%)	0 / 1 (0.00%)	0 / 49 (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
sepsis			
alternative dictionary used: MedDRA 20.1			
subjects affected / exposed	1 / 74 (1.35%)	0 / 1 (0.00%)	0 / 49 (0.00%)
occurrences causally related to treatment / all	1 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

Serious adverse events	Ixekizumab 80Q4W Post-Treatment Follow-up		
Total subjects affected by serious adverse events			
subjects affected / exposed	1 / 78 (1.28%)		
number of deaths (all causes)	0		
number of deaths resulting from adverse events	0		
Injury, poisoning and procedural complications			
extradural haematoma			
alternative dictionary used: MedDRA 20.1			
subjects affected / exposed	0 / 78 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Vascular disorders			
peripheral ischaemia			
alternative dictionary used: MedDRA 20.1			
subjects affected / exposed	0 / 78 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Reproductive system and breast disorders			
benign prostatic hyperplasia			
alternative dictionary used: MedDRA 20.1			
subjects affected / exposed ^[1]	0 / 78 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Gastrointestinal disorders			

colitis alternative dictionary used: MedDRA 20.1 subjects affected / exposed occurrences causally related to treatment / all deaths causally related to treatment / all	0 / 78 (0.00%) 0 / 0 0 / 0		
pancreatitis acute alternative dictionary used: MedDRA 20.1 subjects affected / exposed occurrences causally related to treatment / all deaths causally related to treatment / all	0 / 78 (0.00%) 0 / 0 0 / 0		
Hepatobiliary disorders cholelithiasis alternative dictionary used: MedDRA 20.1 subjects affected / exposed occurrences causally related to treatment / all deaths causally related to treatment / all	0 / 78 (0.00%) 0 / 0 0 / 0		
Psychiatric disorders depression alternative dictionary used: MedDRA 20.1 subjects affected / exposed occurrences causally related to treatment / all deaths causally related to treatment / all	1 / 78 (1.28%) 0 / 1 0 / 0		
suicide attempt alternative dictionary used: MedDRA 20.1 subjects affected / exposed occurrences causally related to treatment / all deaths causally related to treatment / all	0 / 78 (0.00%) 0 / 0 0 / 0		
Renal and urinary disorders ureterolithiasis alternative dictionary used: MedDRA 20.1 subjects affected / exposed occurrences causally related to treatment / all deaths causally related to treatment / all	0 / 78 (0.00%) 0 / 0 0 / 0		
Infections and infestations			

appendicitis alternative dictionary used: MedDRA 20.1 subjects affected / exposed occurrences causally related to treatment / all deaths causally related to treatment / all	 0 / 78 (0.00%) 0 / 0 0 / 0		
cellulitis alternative dictionary used: MedDRA 20.1 subjects affected / exposed occurrences causally related to treatment / all deaths causally related to treatment / all	 0 / 78 (0.00%) 0 / 0 0 / 0		
escherichia bacteraemia alternative dictionary used: MedDRA 20.1 subjects affected / exposed occurrences causally related to treatment / all deaths causally related to treatment / all	 0 / 78 (0.00%) 0 / 0 0 / 0		
sepsis alternative dictionary used: MedDRA 20.1 subjects affected / exposed occurrences causally related to treatment / all deaths causally related to treatment / all	 0 / 78 (0.00%) 0 / 0 0 / 0		

Notes:

[1] - The number of subjects exposed to this adverse event is less than the total number of subjects exposed to this adverse event. These numbers are expected to be equal.

Justification: Gender based adverse event; Analyzed in female subjects.

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

Non-serious adverse events	Placebo	Ixekizumab 80Q2W	Placebo/Ixekizumab 80Q4W
Total subjects affected by non-serious adverse events			
subjects affected / exposed	19 / 74 (25.68%)	21 / 75 (28.00%)	28 / 65 (43.08%)
Nervous system disorders			
headache			
alternative dictionary used: MedDRA 20.1			
subjects affected / exposed	4 / 74 (5.41%)	3 / 75 (4.00%)	2 / 65 (3.08%)
occurrences (all)	6	3	2
General disorders and administration site conditions			

injection site reaction alternative dictionary used: MedDRA 20.1 subjects affected / exposed occurrences (all)	0 / 74 (0.00%) 0	5 / 75 (6.67%) 7	10 / 65 (15.38%) 24
Gastrointestinal disorders diarrhoea alternative dictionary used: MedDRA 20.1 subjects affected / exposed occurrences (all)	4 / 74 (5.41%) 4	1 / 75 (1.33%) 2	0 / 65 (0.00%) 0
Reproductive system and breast disorders dysmenorrhoea alternative dictionary used: MedDRA 20.1 subjects affected / exposed ^[2] occurrences (all) vaginal haemorrhage alternative dictionary used: MedDRA 20.1 subjects affected / exposed ^[3] occurrences (all) vulvovaginal discomfort alternative dictionary used: MedDRA 20.1 subjects affected / exposed ^[4] occurrences (all)	0 / 74 (0.00%) 0 0 / 74 (0.00%) 0 0 / 74 (0.00%) 0	0 / 75 (0.00%) 0 0 / 75 (0.00%) 0 0 / 75 (0.00%) 0	0 / 16 (0.00%) 0 0 / 16 (0.00%) 0 0 / 65 (0.00%) 0
Skin and subcutaneous tissue disorders psoriasis alternative dictionary used: MedDRA 20.1 subjects affected / exposed occurrences (all)	4 / 74 (5.41%) 4	1 / 75 (1.33%) 1	0 / 65 (0.00%) 0
Musculoskeletal and connective tissue disorders arthralgia alternative dictionary used: MedDRA 20.1 subjects affected / exposed occurrences (all)	0 / 74 (0.00%) 0	0 / 75 (0.00%) 0	0 / 65 (0.00%) 0
Infections and infestations bacterial vaginosis alternative dictionary used: MedDRA 20.1			

subjects affected / exposed ^[5]	0 / 74 (0.00%)	0 / 75 (0.00%)	0 / 16 (0.00%)
occurrences (all)	0	0	0
nasopharyngitis			
alternative dictionary used: MedDRA 20.1			
subjects affected / exposed	4 / 74 (5.41%)	2 / 75 (2.67%)	9 / 65 (13.85%)
occurrences (all)	4	2	13
upper respiratory tract infection			
alternative dictionary used: MedDRA 20.1			
subjects affected / exposed	5 / 74 (6.76%)	12 / 75 (16.00%)	10 / 65 (15.38%)
occurrences (all)	5	12	12
urinary tract infection			
alternative dictionary used: MedDRA 20.1			
subjects affected / exposed	0 / 74 (0.00%)	0 / 75 (0.00%)	2 / 65 (3.08%)
occurrences (all)	0	0	2
vulvovaginal candidiasis			
alternative dictionary used: MedDRA 20.1			
subjects affected / exposed ^[6]	0 / 74 (0.00%)	0 / 75 (0.00%)	1 / 16 (6.25%)
occurrences (all)	0	0	2
vulvovaginal mycotic infection			
alternative dictionary used: MedDRA 20.1			
subjects affected / exposed ^[7]	0 / 74 (0.00%)	0 / 75 (0.00%)	0 / 16 (0.00%)
occurrences (all)	0	0	0

Non-serious adverse events	Ixekizumab 80Q2W/Ixekizumab 80Q4W	Placebo Post- Treatment Follow-up	Ixekizumab 80Q2W Post-Treatment Follow-up
Total subjects affected by non-serious adverse events			
subjects affected / exposed	27 / 74 (36.49%)	0 / 1 (0.00%)	1 / 49 (2.04%)
Nervous system disorders			
headache			
alternative dictionary used: MedDRA 20.1			
subjects affected / exposed	6 / 74 (8.11%)	0 / 1 (0.00%)	0 / 49 (0.00%)
occurrences (all)	6	0	0
General disorders and administration site conditions			
injection site reaction			
alternative dictionary used: MedDRA 20.1			

subjects affected / exposed occurrences (all)	3 / 74 (4.05%) 6	0 / 1 (0.00%) 0	0 / 49 (0.00%) 0
Gastrointestinal disorders diarrhoea alternative dictionary used: MedDRA 20.1 subjects affected / exposed occurrences (all)	0 / 74 (0.00%) 0	0 / 1 (0.00%) 0	0 / 49 (0.00%) 0
Reproductive system and breast disorders dysmenorrhoea alternative dictionary used: MedDRA 20.1 subjects affected / exposed ^[2] occurrences (all) vaginal haemorrhage alternative dictionary used: MedDRA 20.1 subjects affected / exposed ^[3] occurrences (all) vulvovaginal discomfort alternative dictionary used: MedDRA 20.1 subjects affected / exposed ^[4] occurrences (all)	1 / 18 (5.56%) 1 1 / 18 (5.56%) 1 0 / 74 (0.00%) 0	0 / 1 (0.00%) 0 0 / 1 (0.00%) 0 0 / 1 (0.00%) 0	0 / 49 (0.00%) 0 0 / 49 (0.00%) 0 1 / 11 (9.09%) 1
Skin and subcutaneous tissue disorders psoriasis alternative dictionary used: MedDRA 20.1 subjects affected / exposed occurrences (all)	0 / 74 (0.00%) 0	0 / 1 (0.00%) 0	0 / 49 (0.00%) 0
Musculoskeletal and connective tissue disorders arthralgia alternative dictionary used: MedDRA 20.1 subjects affected / exposed occurrences (all)	5 / 74 (6.76%) 5	0 / 1 (0.00%) 0	0 / 49 (0.00%) 0
Infections and infestations bacterial vaginosis alternative dictionary used: MedDRA 20.1 subjects affected / exposed ^[5] occurrences (all)	1 / 18 (5.56%) 1	0 / 1 (0.00%) 0	0 / 49 (0.00%) 0

nasopharyngitis alternative dictionary used: MedDRA 20.1 subjects affected / exposed occurrences (all)	7 / 74 (9.46%) 8	0 / 1 (0.00%) 0	0 / 49 (0.00%) 0
upper respiratory tract infection alternative dictionary used: MedDRA 20.1 subjects affected / exposed occurrences (all)	6 / 74 (8.11%) 6	0 / 1 (0.00%) 0	0 / 49 (0.00%) 0
urinary tract infection alternative dictionary used: MedDRA 20.1 subjects affected / exposed occurrences (all)	4 / 74 (5.41%) 4	0 / 1 (0.00%) 0	0 / 49 (0.00%) 0
vulvovaginal candidiasis alternative dictionary used: MedDRA 20.1 subjects affected / exposed ^[6] occurrences (all)	0 / 18 (0.00%) 0	0 / 1 (0.00%) 0	0 / 49 (0.00%) 0
vulvovaginal mycotic infection alternative dictionary used: MedDRA 20.1 subjects affected / exposed ^[7] occurrences (all)	1 / 18 (5.56%) 1	0 / 1 (0.00%) 0	0 / 49 (0.00%) 0

Non-serious adverse events	Ixekizumab 80Q4W Post-Treatment Follow-up		
Total subjects affected by non-serious adverse events subjects affected / exposed	0 / 78 (0.00%)		
Nervous system disorders headache alternative dictionary used: MedDRA 20.1 subjects affected / exposed occurrences (all)	0 / 78 (0.00%) 0		
General disorders and administration site conditions injection site reaction alternative dictionary used: MedDRA 20.1 subjects affected / exposed occurrences (all)	0 / 78 (0.00%) 0		
Gastrointestinal disorders			

diarrhoea alternative dictionary used: MedDRA 20.1 subjects affected / exposed occurrences (all)	0 / 78 (0.00%) 0		
Reproductive system and breast disorders dysmenorrhoea alternative dictionary used: MedDRA 20.1 subjects affected / exposed ^[2] occurrences (all) vaginal haemorrhage alternative dictionary used: MedDRA 20.1 subjects affected / exposed ^[3] occurrences (all) vulvovaginal discomfort alternative dictionary used: MedDRA 20.1 subjects affected / exposed ^[4] occurrences (all)	0 / 78 (0.00%) 0 0 / 78 (0.00%) 0 0 / 21 (0.00%) 0		
Skin and subcutaneous tissue disorders psoriasis alternative dictionary used: MedDRA 20.1 subjects affected / exposed occurrences (all)	0 / 78 (0.00%) 0		
Musculoskeletal and connective tissue disorders arthralgia alternative dictionary used: MedDRA 20.1 subjects affected / exposed occurrences (all)	0 / 78 (0.00%) 0		
Infections and infestations bacterial vaginosis alternative dictionary used: MedDRA 20.1 subjects affected / exposed ^[5] occurrences (all) nasopharyngitis alternative dictionary used: MedDRA 20.1	0 / 78 (0.00%) 0		

subjects affected / exposed	0 / 78 (0.00%)		
occurrences (all)	0		
upper respiratory tract infection			
alternative dictionary used: MedDRA 20.1			
subjects affected / exposed	0 / 78 (0.00%)		
occurrences (all)	0		
urinary tract infection			
alternative dictionary used: MedDRA 20.1			
subjects affected / exposed	0 / 78 (0.00%)		
occurrences (all)	0		
vulvovaginal candidiasis			
alternative dictionary used: MedDRA 20.1			
subjects affected / exposed ^[6]	0 / 78 (0.00%)		
occurrences (all)	0		
vulvovaginal mycotic infection			
alternative dictionary used: MedDRA 20.1			
subjects affected / exposed ^[7]	0 / 78 (0.00%)		
occurrences (all)	0		

Notes:

[2] - The number of subjects exposed to this adverse event is less than the total number of subjects exposed for the reporting group. These numbers are expected to be equal.

Justification: Gender based adverse event; Analyzed in female subjects.

[3] - The number of subjects exposed to this adverse event is less than the total number of subjects exposed for the reporting group. These numbers are expected to be equal.

Justification: Gender based adverse event; Analyzed in female subjects.

[4] - The number of subjects exposed to this adverse event is less than the total number of subjects exposed for the reporting group. These numbers are expected to be equal.

Justification: Gender based adverse event; Analyzed in female subjects.

[5] - The number of subjects exposed to this adverse event is less than the total number of subjects exposed for the reporting group. These numbers are expected to be equal.

Justification: Gender based adverse event; Analyzed in female subjects.

[6] - The number of subjects exposed to this adverse event is less than the total number of subjects exposed for the reporting group. These numbers are expected to be equal.

Justification: Gender based adverse event; Analyzed in female subjects.

[7] - The number of subjects exposed to this adverse event is less than the total number of subjects exposed for the reporting group. These numbers are expected to be equal.

Justification: Gender based adverse event; Analyzed in female subjects.

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
22 January 2016	Columbia–Suicide Severity Rating Scale definition was added.
22 November 2016	SFQ Item 2 was added into the "Major Secondary Endpoint." GPSS Individual items modified to include itch. Addition of sentence "For patients who have entered Period 4, psoriasis therapy is allowed, as determined appropriate by the investigator." in post treatment follow-up phase. Genital Psoriasis Symptoms Scale, text to define the GPSS total and item scores at Week 12 (Visit 7) was added. Genital Psoriasis Sexual Impact Scale, the Sexual Activity Avoidance Subscale scoring of the GPSIS was updated. Sexual Frequency Questionnaire, text was added to define SFQ Item 2 score at Week 12. Adverse Events of Special interest, text was added to include inflammatory bowel disease (IBD).

Notes:

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

None reported