Clinical trial results:
A Phase 3, Multicenter, Open-Label Extension Study of the Long-Term Safety of ARQ-151 Cream 0.15% and ARQ-151 Cream 0.05% in Subjects with Atopic Dermatitis

Summary

EudraCT number	2021-006885-19
Trial protocol	PL
Global end of trial date	28 May 2024

Results information

Result version number	v1 (current)
This version publication date	18 June 2026
First version publication date	18 June 2026

Trial information

Trial identification

Sponsor protocol code	ARQ-151-313

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	-
WHO universal trial number (UTN)	-
Other trial identifiers	IND: 135681

Notes:

Sponsors

Sponsor organisation name	Arcutis Biotherapeutics, Inc.
Sponsor organisation address	3027 Townsgate Rd #300, Westlake Village, CA, United States, 91361
Public contact	Arcutis Medical Information, Arcutis Biotherapeutics, Inc., +1 8054185006, information@arcutis.com
Scientific contact	Arcutis Medical Information, Arcutis Biotherapeutics, Inc., +1 8054185006, information@arcutis.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	28 May 2024
Is this the analysis of the primary completion data?	Yes
Primary completion date	28 May 2024
Global end of trial reached?	Yes
Global end of trial date	28 May 2024
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

This study was a Phase 3, multicenter, open-label extension study of the long-term safety of roflumilast cream 0.15% (completers of studies ARQ-151-311 or ARQ-151-312 aged ≥6 years and ARQ-151-315 rollovers who turned 6 years of age on study) or roflumilast cream 0.05% (ARQ-151-315 rollovers aged 2 to 5 years). Participants with mild to moderate atopic dermatitis (AD) applied roflumilast cream once daily (qd) for up to 52 weeks.

Protection of trial subjects:

This study was conducted in accordance with the Declaration of Helsinki, ICH Good Clinical Practice, and all applicable local laws/regulation.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	25 February 2021
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: 221
Country: Number of subjects enrolled	United States: 773
Country: Number of subjects enrolled	Poland: 226
Worldwide total number of subjects	1220
EEA total number of subjects	226

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)	825
Adolescents (12-17 years)	219
Adults (18-64 years)	156

From 65 to 84 years	20
85 years and over	0

Subject disposition

Recruitment

Recruitment details:

Participants were rolled over upon completion of parent studies ARQ-151-311 (NCT04773587), ARQ-151-312 (NCT03638258), and ARQ-151-315 (NCT04845620). Rollovers from 311/312 were analyzed separately from 315 rollovers.

Pre-assignment

Screening details:

Participants with atopic dermatitis were enrolled at 153 sites in the United States (US), Canada, and Poland.

Period 1

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

Arms

Are arms mutually exclusive?	Yes
Arm title	ARQ-151-311/312:RC/RC 0.15% Group

Arm description:

Participants who received roflumilast cream 0.15% in parent studies received roflumilast 0.15% cream qd for up to 52 weeks in the present study.

Arm type	Experimental
Investigational medicinal product name	Roflumilast Cream
Investigational medicinal product code	
Other name	ARQ-151
Pharmaceutical forms	Cream
Routes of administration	Topical use

Dosage and administration details:

Applied once daily for up to 52 weeks.

Arm title	ARQ-151-311/312:VC/RC 0.15% Group

Arm description:

Participants who received vehicle cream in the parent studies received roflumilast 0.15% cream qd for up to 52 weeks in the present study.

Arm type	Experimental
Investigational medicinal product name	Roflumilast Cream
Investigational medicinal product code	
Other name	ARQ-151
Pharmaceutical forms	Cream
Routes of administration	Topical use

Dosage and administration details:

Applied once daily for up to 52 weeks.

Arm title	ARQ-151-315: RC/RC 0.05% or 0.15% Group

Arm description:

Participants who received roflumilast cream 0.05% or 0.15% in the parent study received roflumilast 0.15% cream qd for up to 52 weeks in the present study. Participants received 0.05% until the first study visit after turning 6 years of age, and were then switched to 0.15%.

Arm type	Experimental

Investigational medicinal product name	Roflumilast Cream
Investigational medicinal product code	
Other name	ARQ-151
Pharmaceutical forms	Cream
Routes of administration	Topical use

Dosage and administration details:

Applied once daily for up to 52 weeks.

Arm title	ARQ-151-315: VC/RC 0.05% or 0.15% Group

Arm description:

Participants who received vehicle cream in the parent study received roflumilast 0.05% or 0.15% cream qd for up to 52 weeks in the present study. Participants received 0.05% until the first study visit after turning 6years of age, and were then switched to 0.15%.

Arm type	Experimental
Investigational medicinal product name	Roflumilast Cream
Investigational medicinal product code	
Other name	ARQ-151
Pharmaceutical forms	Cream
Routes of administration	Topical use

Dosage and administration details:

Applied once daily for up to 52 weeks.

Number of subjects in period 1[1]	ARQ-151-311/312:RC/RC	ARQ-151-311/312:VC/RC	ARQ-151-315: RC/RC 0.05% or 0.15% Group
Started	439	218	382
Completed	289	145	254
Not completed	150	73	128
Consent withdrawn by subject	46	26	37
Physician decision	3	-	5
Adverse event, non-fatal	10	10	10
Miscellaneous	7	3	4
Lost to follow-up	47	21	30
Lack of efficacy	28	11	37
Noncompliance	8	2	5
Protocol deviation	1	-	-

Number of subjects in period 1[1]	ARQ-151-315: VC/RC 0.05% or 0.15% Group
Started	180
Completed	123
Not completed	57
Consent withdrawn by subject	21
Physician decision	-
Adverse event, non-fatal	7
Miscellaneous	2

Lost to follow-up	17
Lack of efficacy	8
Noncompliance	1
Protocol deviation	1

Notes:

[1] - The number of subjects reported to be in the baseline period are not the same as the worldwide number enrolled in the trial. It is expected that these numbers will be the same.

Justification: One participant discontinued from the ARQ-151-311/312 VC/RC 0.15% arm prior to treatment.

Baseline characteristics

Reporting groups	
Reporting group title	ARQ-151-311/312:RC/RC 0.15% Group
Reporting group description:	
Participants who received roflumilast cream 0.15% in parent studies received roflumilast 0.15% cream qd for up to 52 weeks in the present study.	
Reporting group title	ARQ-151-311/312:VC/RC 0.15% Group
Reporting group description:	
Participants who received vehicle cream in the parent studies received roflumilast 0.15% cream qd for up to 52 weeks in the present study.	
Reporting group title	ARQ-151-315: RC/RC 0.05% or 0.15% Group
Reporting group description:	
Participants who received roflumilast cream 0.05% or 0.15% in the parent study received roflumilast 0.15% cream qd for up to 52 weeks in the present study. Participants received 0.05% until the first study visit after turning 6 years of age, and were then switched to 0.15%.	
Reporting group title	ARQ-151-315: VC/RC 0.05% or 0.15% Group
Reporting group description:	
Participants who received vehicle cream in the parent study received roflumilast 0.05% or 0.15% cream qd for up to 52 weeks in the present study. Participants received 0.05% until the first study visit after turning 6years of age, and were then switched to 0.15%.	

Reporting group values	ARQ-151-311/312:RC/RC 0.15% Group	ARQ-151-311/312:VC/RC 0.15% Group	ARQ-151-315: RC/RC 0.05% or 0.15% Group
Number of subjects	439	218	382
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)	183	79	382
Adolescents (12-17 years)	140	79	0
Adults (18-64 years)	105	51	0
From 65-84 years	11	9	0
85 years and over	0	0	0
Age continuous Units: years			
arithmetic mean	19.4	20.5	3.4
standard deviation	± 16.4	± 17.9	± 1.11
Gender categorical Units: Subjects			
Female	244	122	185
Male	195	96	197
Ethnicity Units: Subjects			
Hispanic or Latino	75	34	70
Not Hispanic or Latino	361	182	310
Not Reported	3	2	2

Race Units: Subjects			
American Indian or Alaska native	6	0	1
Asian	63	35	30
Native Hawaiian or Other Pacific Islander	1	0	0
Black or African American	58	31	58
White	272	139	262
Multiple	20	7	25
Not Reported	19	6	6

Reporting group values	ARQ-151-315: VC/RC 0.05% or 0.15% Group	Total	
Number of subjects	180	1219	
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)	180	824	
Adolescents (12-17 years)	0	219	
Adults (18-64 years)	0	156	
From 65-84 years	0	20	
85 years and over	0	0	
Age continuous Units: years			
arithmetic mean	3.43		
standard deviation	± 1.17	-	
Gender categorical Units: Subjects			
Female	91	642	
Male	89	577	
Ethnicity Units: Subjects			
Hispanic or Latino	25	204	
Not Hispanic or Latino	155	1008	
Not Reported	0	7	
Race Units: Subjects			
American Indian or Alaska native	1	8	
Asian	15	143	
Native Hawaiian or Other Pacific Islander	0	1	
Black or African American	22	169	
White	137	810	
Multiple	3	55	
Not Reported	2	33	

End points

End points reporting groups

Reporting group title	ARQ-151-311/312:RC/RC 0.15% Group
Reporting group description:	
Participants who received roflumilast cream 0.15% in parent studies received roflumilast 0.15% cream qd for up to 52 weeks in the present study.	
Reporting group title	ARQ-151-311/312:VC/RC 0.15% Group
Reporting group description:	
Participants who received vehicle cream in the parent studies received roflumilast 0.15% cream qd for up to 52 weeks in the present study.	
Reporting group title	ARQ-151-315: RC/RC 0.05% or 0.15% Group
Reporting group description:	
Participants who received roflumilast cream 0.05% or 0.15% in the parent study received roflumilast 0.15% cream qd for up to 52 weeks in the present study. Participants received 0.05% until the first study visit after turning 6 years of age, and were then switched to 0.15%.	
Reporting group title	ARQ-151-315: VC/RC 0.05% or 0.15% Group
Reporting group description:	
Participants who received vehicle cream in the parent study received roflumilast 0.05% or 0.15% cream qd for up to 52 weeks in the present study. Participants received 0.05% until the first study visit after turning 6years of age, and were then switched to 0.15%.	

Primary: Number of Participants With ≥1 Treatment-emergent Adverse Event (TEAE)

End point title	Number of Participants With ≥1 Treatment-emergent Adverse Event (TEAE)[1]
End point description:	
The number of participants with ≥1 TEAE(s) is reported. All treated participants are included.	
End point type	Primary
End point timeframe:	
Up to 52 weeks	
Notes:	
[1] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point. Justification: Per protocol, only descriptive statistics are presented.	

End point values	ARQ-151-311/312:RC/RC 0.15% Group	ARQ-151-311/312:VC/RC 0.15% Group	ARQ-151-315: RC/RC 0.05% or 0.15% Group	ARQ-151-315: VC/RC 0.05% or 0.15% Group
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	439	218	382	180
Units: Participants	151	90	189	91

Statistical analyses

No statistical analyses for this end point

Primary: Validated Investigator Global Assessment-Atopic Dermatitis (vIGA-AD)

Score of 0 or 1 at Each Assessment

End point title	Validated Investigator Global Assessment-Atopic Dermatitis (vIGA-AD) Score of 0 or 1 at Each Assessment[2]

End point description:

The vIGA-AD is a static evaluation of qualitative overall AD severity. This global assessment scale is an ordinal scale with five severity grades (reported as score of 0 'clear' to 4 'severe'), with lower scores indicating reduced symptom severity and vice versa. Multiple imputation was used to handle missing data up to Week 24 or 52 for 24- and 52-weekcohorts. All participants in the safety analysis are included.

End point type	Primary

End point timeframe:

Weeks 4, 12, 24, 36, and 52

Notes:

[2] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: Per protocol, only descriptive statistics are presented.

End point values	ARQ-151-311/312:RC/RC 0.15% Group	ARQ-151-311/312:VC/RC 0.15% Group	ARQ-151-315: RC/RC 0.05% or 0.15% Group	ARQ-151-315: VC/RC 0.05% or 0.15% Group
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	439	218	382	180
Units: Percentage of participants				
number (confidence interval 95%)				
Week 4	40.1 (35.61 to 44.83)	35.7 (29.60 to 42.36)	37.7 (32.98 to 42.77)	40.8 (33.88 to 48.20)
Week 12	42.2 (37.42 to 47.08)	36.9 (30.55 to 43.68)	40.0 (35.10 to 45.07)	53.0 (45.62 to 60.25)
Week 24	48.2 (43.25 to 53.18)	46.3 (39.27 to 53.48)	46.4 (41.25 to 51.54)	54.3 (46.72 to 61.75)
Week 36	45.5 (38.75 to 52.33)	49.6 (39.36 to 59.82)	42.5 (37.31 to 47.82)	47.6 (39.94 to 55.45)
Week 52	47.9 (40.82 to 55.07)	45.0 (34.99 to 55.41)	50.4 (44.86 to 55.99)	56.9 (48.53 to 64.83)

Statistical analyses

No statistical analyses for this end point

Secondary: Percentage of Participants With vIGA-AD Success

End point title	Percentage of Participants With vIGA-AD Success

End point description:

The percentage of participants with vIGA-AD "success" is presented. Success is defined as vIGA-AD value of 0 or 1plus a 2-grade improvement from baseline. Multiple imputation was used to handle missing data up to Week 24 or 52 for 24- and 52-week cohorts. All participants in the safety analysis are included.

End point type	Secondary

End point timeframe:

Weeks 4, 12, 24, 36, and 52

End point values	ARQ-151-311/312:RC/RC 0.15% Group	ARQ-151-311/312:VC/RC 0.15% Group	ARQ-151-315: RC/RC 0.05% or 0.15% Group	ARQ-151-315: VC/RC 0.05% or 0.15% Group
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	439	218	382	180
Units: Percentage of participants				
number (confidence interval 95%)				
Week 4	30.8 (26.65 to 35.33)	7.8 (4.86 to 12.23)	28.7 (24.38 to 33.48)	11.1 (7.32 to 16.57)
Week 12	33.7 (29.25 to 38.46)	15.8 (11.46 to 21.48)	29.5 (25.12 to 34.33)	24.9 (19.01 to 31.93)
Week 24	39.7 (35.02 to 44.67)	21.6 (16.30 to 28.15)	36.1 (31.31 to 41.13)	24.1 (18.16 to 31.22)
Week 36	37.4 (31.01 to 44.30)	23.5 (15.60 to 33.77)	34.4 (29.50 to 39.61)	22.4 (16.45 to 29.70)
Week 52	42.7 (35.78 to 50.01)	24.2 (16.20 to 34.53)	42.5 (37.11 to 48.15)	28.5 (21.41 to 36.79)

Statistical analyses

No statistical analyses for this end point

Secondary: Change From Baseline in Worst Itch-Numeric Rating Scale (WI-NRS) Score Over Time in Participants ≥12 Years of Age in Parent Study

End point title	Change From Baseline in Worst Itch-Numeric Rating Scale (WI-NRS) Score Over Time in Participants ≥12 Years of Age in Parent Study

End point description:

Change from baseline in WI-NRS score is reported. WI-NRS is a subject-reported severity of itch at its highest intensity during the previous 24-hour period. The scale is from '0 to 10' ("no itch" to "worst imaginable itch"), with lower scores indicating reduced symptom severity and vice versa. All participants who were ≥12 years of age at the start of the parent studies are included.

End point type	Secondary

End point timeframe:

Weeks 4, 12, 24, 36, and 52

End point values	ARQ-151-311/312:RC/RC 0.15% Group	ARQ-151-311/312:VC/RC 0.15% Group	ARQ-151-315: RC/RC 0.05% or 0.15% Group	ARQ-151-315: VC/RC 0.05% or 0.15% Group
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	256	139	0[3]	0[4]
Units: WI-NRS Score Change				
arithmetic mean (standard deviation)				
Week 4	-2.1 (± 2.80)	-0.3 (± 2.23)	()	()
Week 12	-2.4 (± 3.05)	-0.2 (± 2.65)	()	()
Week 24	-2.7 (± 2.85)	-0.8 (± 2.69)	()	()
Week 36	-2.6 (± 2.81)	-0.3 (± 2.40)	()	()
Week 52	-3.2 (± 2.85)	-1.2 (± 2.41)	()	()

Notes:

[3] - Not included due to age ≤12 years at the start of parent study.

[4] - Not included due to age ≤12 years at the start of parent study.

Statistical analyses

No statistical analyses for this end point

Secondary: Percent Change From Baseline in EASI Score

End point title	Percent Change From Baseline in EASI Score

End point description:

EASI is an instrument to measure the severity and extent of AD. The body is first divided into 4 areas: head (10% of skin), arms (20%), trunk (30%), and legs (40%). Then, the area affected is scored from 0 (0% involvement) to 6(90%-100% involvement), and severity is scored from 0 ('none') to 3 ('severe'). EASI combines the area affected and severity ratings to get a final composite score ranging from 0 (no disease) to 72 (severe disease). Note that palms and soles were treated as appropriate but were not counted towards any measurements of EASI. All participants with data available are included.

End point type	Secondary

End point timeframe:

Weeks 4, 12, 24, 36, and 52

End point values	ARQ-151-311/312:RC/RC 0.15% Group	ARQ-151-311/312:VC/RC 0.15% Group	ARQ-151-315: RC/RC 0.05% or 0.15% Group	ARQ-151-315: VC/RC 0.05% or 0.15% Group
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	439	218	382	180
Units: Percent change in EASI score				
arithmetic mean (standard deviation)				
Week 4	-63.23 (± 39.702)	-36.93 (± 63.272)	-59.51 (± 40.684)	-41.29 (± 53.042)
Week 12	-68.39 (± 34.195)	-17.95 (± 152.845)	-62.02 (± 49.438)	-16.11 (± 241.787)
Week 24	-72.81 (± 34.462)	-33.34 (± 116.997)	-71.04 (± 36.124)	-32.65 (± 16.532)
Week 36	-73.81 (± 31.300)	-39.20 (± 104.744)	-69.75 (± 40.467)	-39.39 (± 148.094)
Week 52	-74.57 (± 35.160)	-27.94 (± 137.809)	-77.78 (± 35.095)	-52.36 (± 74.751)

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information	
Timeframe for reporting adverse events:	
Up to 52 weeks	
Adverse event reporting additional description:	
All treated participants are included.	
Assessment type	Systematic

Dictionary used	
Dictionary name	MedDRA
Dictionary version	25.0

Reporting groups	
Reporting group title	ARQ-151-311/312:RC/RC 0.15% Group
Reporting group description:	
Participants who received roflumilast cream 0.15% in parent studies received roflumilast 0.15% cream qd for up to 52 weeks in the present study.	
Reporting group title	ARQ-151-311/312:VC/RC 0.15% Group
Reporting group description:	
Participants who received vehicle cream in the parent studies received roflumilast 0.15% cream qd for up to 52 weeks in the present study.	
Reporting group title	ARQ-151-315: RC/RC0.05% or 0.15% Group
Reporting group description:	
Participants who received roflumilast cream 0.05% or 0.15% in the parent study received roflumilast 0.15% cream qd for up to 52 weeks in the present study. Participants received0.05% until the first study visit after turning 6 years of age, and were then switched to 0.15%.	
Reporting group title	ARQ-151-315: VC/RC 0.05% or 0.15% Group
Reporting group description:	
Participants who received vehicle cream in the parent study received roflumilast 0.05% or 0.15% cream qd for up to 52 weeks in the present study. Participants received 0.05% until the first study visit after turning 6years of age, and were then switched to 0.15%.	

Serious adverse events	ARQ-151-311/312:RC/RC	ARQ-151-311/312:VC/RC	ARQ-151-315: RC/RC0.05% or 0.15% Group
Total subjects affected by serious adverse events			
subjects affected / exposed	5 / 439 (1.14%)	3 / 218 (1.38%)	12 / 382 (3.14%)
number of deaths (all causes)	0	0	0
number of deaths resulting from adverse events	0	0	0
Injury, poisoning and procedural complications			
Abscess jaw			
subjects affected / exposed	0 / 439 (0.00%)	0 / 218 (0.00%)	1 / 382 (0.26%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Penetrating abdominal trauma			

subjects affected / exposed	0 / 439 (0.00%)	0 / 218 (0.00%)	1 / 382 (0.26%)
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			
Aortic aneurysm			
subjects affected / exposed	1 / 439 (0.23%)	0 / 218 (0.00%)	0 / 382 (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
Hypertension			
subjects affected / exposed	0 / 439 (0.00%)	1 / 218 (0.46%)	0 / 382 (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
Nervous system disorders			
Headache			
subjects affected / exposed	1 / 439 (0.23%)	0 / 218 (0.00%)	0 / 382 (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
Blood and lymphatic system disorders			
Lymphadenopathy			
subjects affected / exposed	0 / 439 (0.00%)	0 / 218 (0.00%)	1 / 382 (0.26%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Immune system disorders			
Anaphylactic shock			
subjects affected / exposed	0 / 439 (0.00%)	0 / 218 (0.00%)	1 / 382 (0.26%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Gastrointestinal disorders			
Diarrhoea			
subjects affected / exposed	1 / 439 (0.23%)	0 / 218 (0.00%)	0 / 382 (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
Vomiting			

subjects affected / exposed	1 / 439 (0.23%)	0 / 218 (0.00%)	0 / 382 (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
Respiratory, thoracic and mediastinal disorders			
Asthma			
subjects affected / exposed	1 / 439 (0.23%)	0 / 218 (0.00%)	0 / 382 (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
Bronchial hyperreactivity			
subjects affected / exposed	0 / 439 (0.00%)	0 / 218 (0.00%)	1 / 382 (0.26%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Dyspnoea			
subjects affected / exposed	0 / 439 (0.00%)	0 / 218 (0.00%)	1 / 382 (0.26%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Hypoxia			
subjects affected / exposed	0 / 439 (0.00%)	0 / 218 (0.00%)	0 / 382 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Musculoskeletal and connective tissue disorders			
Joint swelling			
subjects affected / exposed	0 / 439 (0.00%)	0 / 218 (0.00%)	0 / 382 (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			
subjects affected / exposed	1 / 439 (0.23%)	0 / 218 (0.00%)	0 / 382 (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
Application site cellulitis			

subjects affected / exposed	0 / 439 (0.00%)	0 / 218 (0.00%)	1 / 382 (0.26%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Bronchitis			
subjects affected / exposed	0 / 439 (0.00%)	0 / 218 (0.00%)	2 / 382 (0.52%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 2
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Device related infection			
subjects affected / exposed	0 / 439 (0.00%)	1 / 218 (0.46%)	0 / 382 (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
Eczema infected			
subjects affected / exposed	0 / 439 (0.00%)	0 / 218 (0.00%)	0 / 382 (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
Gastroenteritis			
subjects affected / exposed	1 / 439 (0.23%)	0 / 218 (0.00%)	0 / 382 (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 bacterial overgrowth			
subjects affected / exposed	0 / 439 (0.00%)	0 / 218 (0.00%)	1 / 382 (0.26%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Influenza			
subjects affected / exposed	0 / 439 (0.00%)	0 / 218 (0.00%)	1 / 382 (0.26%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Laryngitis			
subjects affected / exposed	0 / 439 (0.00%)	0 / 218 (0.00%)	1 / 382 (0.26%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Pneumonia			

subjects affected / exposed	0 / 439 (0.00%)	1 / 218 (0.46%)	2 / 382 (0.52%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Pneumonia viral			
subjects affected / exposed	0 / 439 (0.00%)	0 / 218 (0.00%)	1 / 382 (0.26%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Respiratory syncytial virus infection			
subjects affected / exposed	0 / 439 (0.00%)	0 / 218 (0.00%)	1 / 382 (0.26%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Sepsis			
subjects affected / exposed	1 / 439 (0.23%)	0 / 218 (0.00%)	0 / 382 (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
Skin bacterial infection			
subjects affected / exposed	0 / 439 (0.00%)	0 / 218 (0.00%)	0 / 382 (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
Viral upper respiratory tract infection			
subjects affected / exposed	0 / 439 (0.00%)	0 / 218 (0.00%)	0 / 382 (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
Metabolism and nutrition disorders			
Hypoglycaemia			
subjects affected / exposed	0 / 439 (0.00%)	0 / 218 (0.00%)	0 / 382 (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	ARQ-151-315: VC/RC 0.05% or 0.15% Group		
Total subjects affected by serious adverse events			
subjects affected / exposed	6 / 180 (3.33%)		
number of deaths (all causes)	0		
number of deaths resulting from	0		

adverse events			
Injury, poisoning and procedural complications			
Abscess jaw			
subjects affected / exposed	0 / 180 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Penetrating abdominal trauma			
subjects affected / exposed	0 / 180 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Vascular disorders			
Aortic aneurysm			
subjects affected / exposed	0 / 180 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Hypertension			
subjects affected / exposed	0 / 180 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Nervous system disorders			
Headache			
subjects affected / exposed	0 / 180 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Blood and lymphatic system disorders			
Lymphadenopathy			
subjects affected / exposed	0 / 180 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Immune system disorders			
Anaphylactic shock			
subjects affected / exposed	0 / 180 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Gastrointestinal disorders			

Diarrhoea			
subjects affected / exposed	0 / 180 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Vomiting			
subjects affected / exposed	1 / 180 (0.56%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Respiratory, thoracic and mediastinal disorders			
Asthma			
subjects affected / exposed	0 / 180 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Bronchial hyperreactivity			
subjects affected / exposed	1 / 180 (0.56%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Dyspnoea			
subjects affected / exposed	0 / 180 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Hypoxia			
subjects affected / exposed	1 / 180 (0.56%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Musculoskeletal and connective tissue disorders			
Joint swelling			
subjects affected / exposed	1 / 180 (0.56%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Infections and infestations			
Appendicitis			

subjects affected / exposed	0 / 180 (0.00%)			
occurrences causally related to treatment / all	0 / 0			
deaths causally related to treatment / all	0 / 0			
Application site cellulitis				
subjects affected / exposed	0 / 180 (0.00%)			
occurrences causally related to treatment / all	0 / 0			
deaths causally related to treatment / all	0 / 0			
Bronchitis				
subjects affected / exposed	0 / 180 (0.00%)			
occurrences causally related to treatment / all	0 / 0			
deaths causally related to treatment / all	0 / 0			
Device related infection				
subjects affected / exposed	0 / 180 (0.00%)			
occurrences causally related to treatment / all	0 / 0			
deaths causally related to treatment / all	0 / 0			
Eczema infected				
subjects affected / exposed	1 / 180 (0.56%)			
occurrences causally related to treatment / all	0 / 1			
deaths causally related to treatment / all	0 / 0			
Gastroenteritis				
subjects affected / exposed	1 / 180 (0.56%)			
occurrences causally related to treatment / all	0 / 1			
deaths causally related to treatment / all	0 / 0			
Gastrointestinal bacterial overgrowth				
subjects affected / exposed	0 / 180 (0.00%)			
occurrences causally related to treatment / all	0 / 0			
deaths causally related to treatment / all	0 / 0			
Influenza				
subjects affected / exposed	0 / 180 (0.00%)			
occurrences causally related to treatment / all	0 / 0			
deaths causally related to treatment / all	0 / 0			
Laryngitis				

subjects affected / exposed	0 / 180 (0.00%)			
occurrences causally related to treatment / all	0 / 0			
deaths causally related to treatment / all	0 / 0			
Pneumonia				
subjects affected / exposed	1 / 180 (0.56%)			
occurrences causally related to treatment / all	0 / 0			
deaths causally related to treatment / all	0 / 0			
Pneumonia viral				
subjects affected / exposed	0 / 180 (0.00%)			
occurrences causally related to treatment / all	0 / 0			
deaths causally related to treatment / all	0 / 0			
Respiratory syncytial virus infection				
subjects affected / exposed	0 / 180 (0.00%)			
occurrences causally related to treatment / all	0 / 0			
deaths causally related to treatment / all	0 / 0			
Sepsis				
subjects affected / exposed	0 / 180 (0.00%)			
occurrences causally related to treatment / all	0 / 0			
deaths causally related to treatment / all	0 / 0			
Skin bacterial infection				
subjects affected / exposed	1 / 180 (0.56%)			
occurrences causally related to treatment / all	0 / 1			
deaths causally related to treatment / all	0 / 0			
Viral upper respiratory tract infection				
subjects affected / exposed	1 / 180 (0.56%)			
occurrences causally related to treatment / all	0 / 1			
deaths causally related to treatment / all	0 / 0			
Metabolism and nutrition disorders				
Hypoglycaemia				
subjects affected / exposed	1 / 180 (0.56%)			
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	ARQ-151-311/312:RC/RC	ARQ-151-311/312:VC/RC	ARQ-151-315: RC/RC0.05% or 0.15% Group
Total subjects affected by non-serious adverse events			
subjects affected / exposed	18 / 439 (4.10%)	12 / 218 (5.50%)	82 / 382 (21.47%)
General disorders and administration site conditions			
Pyrexia			
subjects affected / exposed	4 / 439 (0.91%)	1 / 218 (0.46%)	18 / 382 (4.71%)
occurrences (all)	4	1	18
Infections and infestations			
COVID-19			
subjects affected / exposed	18 / 439 (4.10%)	12 / 218 (5.50%)	13 / 382 (3.40%)
occurrences (all)	18	12	13
Influenza			
subjects affected / exposed	7 / 439 (1.59%)	3 / 218 (1.38%)	10 / 382 (2.62%)
occurrences (all)	7	3	10
Nasopharyngitis			
subjects affected / exposed	12 / 439 (2.73%)	8 / 218 (3.67%)	23 / 382 (6.02%)
occurrences (all)	12	8	23
Upper respiratory tract infection			
subjects affected / exposed	9 / 439 (2.05%)	12 / 218 (5.50%)	33 / 382 (8.64%)
occurrences (all)	9	12	33

Non-serious adverse events	ARQ-151-315: VC/RC 0.05% or 0.15% Group		
Total subjects affected by non-serious adverse events			
subjects affected / exposed	40 / 180 (22.22%)		
General disorders and administration site conditions			
Pyrexia			
subjects affected / exposed	10 / 180 (5.56%)		
occurrences (all)	10		
Infections and infestations			
COVID-19			
subjects affected / exposed	5 / 180 (2.78%)		
occurrences (all)	5		
Influenza			

subjects affected / exposed	11 / 180 (6.11%)		
occurrences (all)	11		
Nasopharyngitis			
subjects affected / exposed	5 / 180 (2.78%)		
occurrences (all)	5		
Upper respiratory tract infection			
subjects affected / exposed	16 / 180 (8.89%)		
occurrences (all)	16		

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? No

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

None reported