

**Clinical trial results:**

**An integrated Phase I/IIa study to evaluate the safety, tolerability and pharmacokinetics of single ascending doses of inhaled GRC 17536 in healthy adult volunteers and multiple ascending doses in patients with mild asthma; and randomised, double-blind, placebo controlled, cross-over study to evaluate the effects of multiple doses of inhaled GRC 17536 on late phase asthmatic response to allergen challenge in patients with mild asthma.**

**Summary**

EudraCT number	2012-002567-99
Trial protocol	GB
Global end of trial date	15 October 2013

**Results information**

Result version number	v2 (current)
This version publication date	12 March 2016
First version publication date	05 August 2015
Version creation reason	<ul style="list-style-type: none"><li>• New data added to full data set</li><li>Public contact name changed to Amol Pendse (Amol.Pendse@glenmarkpharma.com)</li></ul>

**Trial information****Trial identification**

Sponsor protocol code	GRC17536-202
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**Additional study identifiers**

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

Notes:

**Sponsors**

Sponsor organisation name	Glenmark Pharmaceuticals SA
Sponsor organisation address	Chemin de la Combeta 5, 2300 La Chaux-de-Fonds, Switzerland,
Public contact	Amol Pendse, Glenmark Pharmaceuticals SA, +91 22 6772 0000, Amol.Pendse@glenmarkpharma.com
Scientific contact	Dr. Monika Tandon, Glenmark Pharmaceuticals SA, +91 22 6772 0000, Monika.Tandon@glenmarkpharma.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	No

1901/2006 apply to this trial?	
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Notes:

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### Results analysis stage

Analysis stage	Final
Date of interim/final analysis	04 November 2014
Is this the analysis of the primary completion data?	Yes
Primary completion date	15 October 2013
Global end of trial reached?	Yes
Global end of trial date	15 October 2013
Was the trial ended prematurely?	No

Notes:

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### General information about the trial

Main objective of the trial:

Part 1 (single ascending dose [SAD]) - To evaluate the safety and tolerability of single ascending inhaled doses (SAD) of GRC 17536 in healthy male subjects.

Part 2 (multiple ascending dose [MAD]) - To evaluate the safety and tolerability of twice daily multiple ascending inhaled doses (MAD) of GRC 17536 at three dose levels (highest safe once daily doses identified in SAD) in subjects with mild asthma.

Part 3 (Allergen Challenge) - To evaluate the allergen-induced early and late phase asthmatic response (LAR) as measured by maximal percent decrease in the forced expiratory volume in 1 second (FEV1) and area under the effect curve (AUEC) from the baseline (pre-allergen challenge) to the period beginning 3 hours and ending 8 hours after allergen challenge at the two highest identified doses of GRC 17536 and placebo.

Protection of trial subjects:

In the interests of subject safety and acceptable standards of medical care the Investigator was permitted to prescribe treatment(s) at his/her discretion. All treatments taken by the subjects during the study were recorded in the subjects' CRF (medication, dose, treatment duration and indication).

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	04 October 2012
Long term follow-up planned	No
Independent data monitoring committee (IDMC) involvement?	No

Notes:

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### Population of trial subjects

#### Subjects enrolled per country

Country: Number of subjects enrolled	United Kingdom: 83
Worldwide total number of subjects	83
EEA total number of subjects	83

Notes:

<b>Subjects enrolled per age group</b>	
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)	83
From 65 to 84 years	0
85 years and over	0

## Subject disposition

### Recruitment

Recruitment details:

Date of first patient enrollment: 04 October 2012

Date of last patient completed: 15 October 2013

Country: United Kingdom

### Pre-assignment

Screening details:

Screening Period: 28 days

Inclusion Criteria: Healthy Volunteers, Mild Asthma Patients

### Period 1

Period 1 title	Part I (SAD) Study
Is this the baseline period?	Yes
Allocation method	Randomised - controlled
Blinding used	Double blind
Roles blinded	Subject, Investigator, Monitor, Carer, Assessor

### Arms

Are arms mutually exclusive?	Yes
<b>Arm title</b>	Part I (SAD) study: GRC 17536

Arm description:

GRC 17536

A total of 36 healthy adult male subjects participated in 6 cohorts (Cohorts A to F). Four subjects were randomised to GRC 17536 or placebo (3 GRC 17536 and 1 placebo) in Cohorts A and B, 6 subjects (4 GRC 17536 and 2 placebo) in Cohorts C and D and 8 subjects (6 GRC 17536 and 2 placebo) in Cohorts E and F. The dose of GRC 17536 administered was increased sequentially; 0.1, 0.5, 1.5, 3, 6 or 10 mg.

Arm type	Experimental
Investigational medicinal product name	GRC 17536
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Capsule
Routes of administration	Inhalation use

Dosage and administration details:

Each capsule for Inhalation of GRC 17536

<b>Arm title</b>	Part I (SAD) study: Placebo
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Arm description:

Placebo:

A total of 36 healthy adult male subjects participated in 6 cohorts (Cohorts A to F). Four subjects were randomised to GRC 17536 or placebo (3 GRC 17536 and 1 placebo) in Cohorts A and B, 6 subjects (4 GRC 17536 and 2 placebo) in Cohorts C and D and 8 subjects (6 GRC 17536 and 2 placebo) in Cohorts E and F. The dose of GRC 17536 administered was increased sequentially; 0.1, 0.5, 1.5, 3, 6 or 10 mg.

Arm type	Placebo
Investigational medicinal product name	Placebo
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Capsule
Routes of administration	Inhalation use

Dosage and administration details:

Capsule for inhalation

<b>Number of subjects in period 1</b> <sup>[1]</sup>	Part I (SAD) study: GRC 17536	Part I (SAD) study: Placebo
Started	26	10
Completed	26	10

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: There are three separate parts (Part I - SAD study, Part II - MAD study, and Part III - Allergen Challenge) in this study protocol and all the three parts are independent to each other.

## Period 2

Period 2 title	Part II (MAD) study
Is this the baseline period?	No
Allocation method	Randomised - controlled
Blinding used	Double blind
Roles blinded	Subject, Investigator, Monitor, Carer, Assessor

## Arms

Are arms mutually exclusive?	Yes
<b>Arm title</b>	Part II (MAD) Study: GRC 17536

Arm description:

GRC 17536

A total of 23 subjects were enrolled in 3 cohorts received 3 highest doses 3 mg, 6 mg and 10 mg GRC 17536 twice daily. Eight subjects were randomised to GRC 17536 or placebo in each cohort (6 subjects received GRC 17536 and 2 subjects received placebo).

Arm type	Experimental
Investigational medicinal product name	GRC 17536
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Capsule
Routes of administration	Inhalation use

Dosage and administration details:

Each capsule for Inhalation of GRC 17536

<b>Arm title</b>	Part II (MAD) Study: Placebo
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Arm description:

Placebo

A total of 23 subjects were enrolled in 3 cohorts received 3 highest doses 3 mg, 6 mg and 10 mg GRC 17536 twice daily. Eight subjects were randomised to GRC 17536 or placebo in each cohort (6 subjects received GRC 17536 and 2 subjects received placebo).

Arm type	Placebo
Investigational medicinal product name	Placebo
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Capsule
Routes of administration	Inhalation use

Dosage and administration details:

placebo capsule for Inhalation use

<b>Number of subjects in period 2<sup>[2]</sup></b>	Part II (MAD) Study: GRC 17536	Part II (MAD) Study: Placebo
Started	17	6
Completed	16	6
Not completed	1	0
Adverse event, non-fatal	1	-

Notes:

[2] - The number of subjects starting the period is not consistent with the number completing the preceding period. It is expected the number of subjects starting the subsequent period will be the same as the number completing the preceding period.

Justification: There are three separate parts (Part I - SAD study, Part II - MAD study, and Part III - Allergen Challenge) in this study protocol and all the three parts are independent to each other.

### Period 3

Period 3 title	Part III (Allergen Challenge)
Is this the baseline period?	No
Allocation method	Randomised - controlled
Blinding used	Double blind
Roles blinded	Subject, Investigator, Monitor, Carer, Assessor

### Arms

Are arms mutually exclusive?	No
<b>Arm title</b>	Part III (Allergen Challenge): GRC 17536 6 mg

Arm description:

This was a randomised, placebo-controlled, double-blind, 3-period cross-over, proof of concept study. A total of 24 subjects were randomised to one of 6 treatment sequences to receive 3 treatments (10 mg, 6 mg and placebo) in 3 treatment periods.

Arm type	Experimental
Investigational medicinal product name	GRC 17536 6 mg
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Capsule
Routes of administration	Inhalation use

Dosage and administration details:

GRC 17536 6 mg capsules for oral Inhalation use twice daily

<b>Arm title</b>	Part III (Allergen Challenge): GRC 17536 10 mg
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Arm description:

This was a randomised, placebo-controlled, double-blind, 3-period cross-over, proof of concept study. A total of 24 subjects were randomised to one of 6 treatment sequences to receive 3 treatments (10 mg, 6 mg and placebo) in 3 treatment periods.

Arm type	Experimental
Investigational medicinal product name	GRC 17536 10 mg
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Capsule
Routes of administration	Inhalation use

Dosage and administration details:

GRC 17536 10 mg capsules for oral Inhalation twice daily

<b>Arm title</b>	Part III (Allergen Challenge): Placebo
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Arm description:

This was a randomised, placebo-controlled, double-blind, 3-period cross-over, proof of concept study. A total of 24 subjects were randomised to one of 6 treatment sequences to receive 3 treatments (10 mg, 6 mg and placebo) in 3 treatment periods.

Arm type	Experimental
Investigational medicinal product name	Placebo
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Capsule
Routes of administration	Inhalation use

Dosage and administration details:

Placebo capsules for oral inhalation use

<b>Number of subjects in period 3</b>	Part III (Allergen Challenge): GRC 17536 6 mg	Part III (Allergen Challenge): GRC 17536 10 mg	Part III (Allergen Challenge): Placebo
Started	21	23	21
Completed	21	20	20
Not completed	0	3	1
Consent withdrawn by subject	-	1	-
Exclusion criteria not met	-	1	-
Adverse event, non-fatal	-	1	-
Protocol deviation	-	-	1

## Baseline characteristics

### Reporting groups

Reporting group title	Part I (SAD) study: GRC 17536
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Reporting group description:

GRC 17536

A total of 36 healthy adult male subjects participated in 6 cohorts (Cohorts A to F). Four subjects were randomised to GRC 17536 or placebo (3 GRC 17536 and 1 placebo) in Cohorts A and B, 6 subjects (4 GRC 17536 and 2 placebo) in Cohorts C and D and 8 subjects (6 GRC 17536 and 2 placebo) in Cohorts E and F. The dose of GRC 17536 administered was increased sequentially; 0.1, 0.5, 1.5, 3, 6 or 10 mg.

Reporting group title	Part I (SAD) study: Placebo
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Reporting group description:

Placebo:

A total of 36 healthy adult male subjects participated in 6 cohorts (Cohorts A to F). Four subjects were randomised to GRC 17536 or placebo (3 GRC 17536 and 1 placebo) in Cohorts A and B, 6 subjects (4 GRC 17536 and 2 placebo) in Cohorts C and D and 8 subjects (6 GRC 17536 and 2 placebo) in Cohorts E and F. The dose of GRC 17536 administered was increased sequentially; 0.1, 0.5, 1.5, 3, 6 or 10 mg.

Reporting group values	Part I (SAD) study: GRC 17536	Part I (SAD) study: Placebo	Total
Number of subjects	26	10	36
Age categorical			
Part 1 (SAD): Healthy Male subjects aged 18 to 50 years			
Units: Subjects			
In utero	0	0	0
Preterm newborn infants (gestational age < 37 wks)	0	0	0
Newborns (0-27 days)	0	0	0
Infants and toddlers (28 days-23 months)	0	0	0
Children (2-11 years)	0	0	0
Adolescents (12-17 years)	0	0	0
Adults (18-64 years)	0	0	0
From 65-84 years	0	0	0
85 years and over	0	0	0
Age 18 to 65 years	0	0	0
Age 18 to 50 years	26	10	36
Age continuous			
Units: years			
arithmetic mean	31	32	
standard deviation	± 7	± 9	-
Gender categorical			
Units: Subjects			
Male	26	10	36
Female	0	0	0

### Subject analysis sets

Subject analysis set title	GRC 17536 (SAD, Part I)
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Subject analysis set type	Safety analysis
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Subject analysis set description:

Healthy male subjects who were randomised to receive a single inhaled dose of GRC 17536

Subject analysis set title	Placebo (SAD, Part I)
Subject analysis set type	Safety analysis

Subject analysis set description:

Healthy male subjects were randomised to receive a single inhaled dose of placebo

Subject analysis set title	GRC 17536 (MAD, Part II)
Subject analysis set type	Safety analysis

Subject analysis set description:

Male subjects with mild asthma were enrolled to receive GRC 17536

Subject analysis set title	Placebo (MAD, Part II)
Subject analysis set type	Safety analysis

Subject analysis set description:

Male subjects with mild asthma were enrolled to receive Placebo

Subject analysis set title	GRC 17536 6mg (Allergen Challenge, Part III)
Subject analysis set type	Full analysis

Subject analysis set description:

Male subjects with mild asthma were enrolled to receive 6 mg

Subject analysis set title	GRC 17536 10 mg (Allergen Challenge, Part III)
Subject analysis set type	Full analysis

Subject analysis set description:

Male subjects with mild asthma were enrolled to receive 10 mg

Subject analysis set title	Placebo (Allergen Challenge, Part III)
Subject analysis set type	Full analysis

Subject analysis set description:

Male subjects with mild asthma were enrolled and were randomised to receive placebo

Reporting group values	GRC 17536 (SAD, Part I)	Placebo (SAD, Part I)	GRC 17536 (MAD, Part II)
Number of subjects	26	10	17
Age categorical			
Part 1 (SAD): Healthy Male subjects aged 18 to 50 years			
Units: Subjects			
In utero	0	0	0
Preterm newborn infants (gestational age < 37 wks)	0	0	0
Newborns (0-27 days)	0	0	0
Infants and toddlers (28 days-23 months)	0	0	0
Children (2-11 years)	0	0	0
Adolescents (12-17 years)	0	0	0
Adults (18-64 years)	0	0	0
From 65-84 years	0	0	0
85 years and over	0	0	0
Age 18 to 65 years	0	0	17
Age 18 to 50 years	26	10	0
Age continuous			
Units: years			
arithmetic mean	31	32	33
standard deviation	± 7	± 9	± 13
Gender categorical			
Units: Subjects			
Male	26	10	17

Female	0	0	0
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Reporting group values	Placebo (MAD, Part II)	GRC 17536 6mg (Allergen Challenge, Part III)	GRC 17536 10 mg (Allergen Challenge, Part III)
Number of subjects	6	21	23
Age categorical			
Part 1 (SAD): Healthy Male subjects aged 18 to 50 years			
Units: Subjects			
In utero	0	0	0
Preterm newborn infants (gestational age < 37 wks)	0	0	0
Newborns (0-27 days)	0	0	0
Infants and toddlers (28 days-23 months)	0	0	0
Children (2-11 years)	0	0	0
Adolescents (12-17 years)	0	0	0
Adults (18-64 years)	0	0	0
From 65-84 years	0	0	0
85 years and over	0	0	0
Age 18 to 65 years	6	21	23
Age 18 to 50 years	0	0	0
Age continuous			
Units: years			
arithmetic mean	37	34.23	33.56
standard deviation	± 13	± 7.95	± 8.07
Gender categorical			
Units: Subjects			
Male	6	21	23
Female	0	0	0

Reporting group values	Placebo (Allergen Challenge, Part III)		
Number of subjects	21		
Age categorical			
Part 1 (SAD): Healthy Male subjects aged 18 to 50 years			
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 18 to 65 years	21		
Age 18 to 50 years	0		

Age continuous			
Units: years			
arithmetic mean	34.38		
standard deviation	± 8.01		
Gender categorical			
Units: Subjects			
Male	21		
Female	0		

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## End points

### End points reporting groups

Reporting group title	Part I (SAD) study: GRC 17536
Reporting group description: GRC 17536	
A total of 36 healthy adult male subjects participated in 6 cohorts (Cohorts A to F). Four subjects were randomised to GRC 17536 or placebo (3 GRC 17536 and 1 placebo) in Cohorts A and B, 6 subjects (4 GRC 17536 and 2 placebo) in Cohorts C and D and 8 subjects (6 GRC 17536 and 2 placebo) in Cohorts E and F. The dose of GRC 17536 administered was increased sequentially; 0.1, 0.5, 1.5, 3, 6 or 10 mg.	
Reporting group title	Part I (SAD) study: Placebo
Reporting group description: Placebo:	
A total of 36 healthy adult male subjects participated in 6 cohorts (Cohorts A to F). Four subjects were randomised to GRC 17536 or placebo (3 GRC 17536 and 1 placebo) in Cohorts A and B, 6 subjects (4 GRC 17536 and 2 placebo) in Cohorts C and D and 8 subjects (6 GRC 17536 and 2 placebo) in Cohorts E and F. The dose of GRC 17536 administered was increased sequentially; 0.1, 0.5, 1.5, 3, 6 or 10 mg.	
Reporting group title	Part II (MAD) Study: GRC 17536
Reporting group description: GRC 17536	
A total of 23 subjects were enrolled in 3 cohorts received 3 highest doses 3 mg, 6 mg and 10 mg GRC 17536 twice daily. Eight subjects were randomised to GRC 17536 or placebo in each cohort (6 subjects received GRC 17536 and 2 subjects received placebo).	
Reporting group title	Part II (MAD) Study: Placebo
Reporting group description: Placebo	
A total of 23 subjects were enrolled in 3 cohorts received 3 highest doses 3 mg, 6 mg and 10 mg GRC 17536 twice daily. Eight subjects were randomised to GRC 17536 or placebo in each cohort (6 subjects received GRC 17536 and 2 subjects received placebo).	
Reporting group title	Part III (Allergen Challenge): GRC 17536 6 mg
Reporting group description: This was a randomised, placebo-controlled, double-blind, 3-period cross-over, proof of concept study. A total of 24 subjects were randomised to one of 6 treatment sequences to receive 3 treatments (10 mg, 6 mg and placebo) in 3 treatment periods.	
Reporting group title	Part III (Allergen Challenge): GRC 17536 10 mg
Reporting group description: This was a randomised, placebo-controlled, double-blind, 3-period cross-over, proof of concept study. A total of 24 subjects were randomised to one of 6 treatment sequences to receive 3 treatments (10 mg, 6 mg and placebo) in 3 treatment periods.	
Reporting group title	Part III (Allergen Challenge): Placebo
Reporting group description: This was a randomised, placebo-controlled, double-blind, 3-period cross-over, proof of concept study. A total of 24 subjects were randomised to one of 6 treatment sequences to receive 3 treatments (10 mg, 6 mg and placebo) in 3 treatment periods.	
Subject analysis set title	GRC 17536 (SAD, Part I)
Subject analysis set type	Safety analysis
Subject analysis set description: Healthy male subjects who were randomised to receive a single inhaled dose of GRC 17536	
Subject analysis set title	Placebo (SAD, Part I)
Subject analysis set type	Safety analysis
Subject analysis set description: Healthy male subjects were randomised to receive a single inhaled dose of placebo	
Subject analysis set title	GRC 17536 (MAD, Part II)

Subject analysis set type	Safety analysis
Subject analysis set description:	
Male subjects with mild asthma were enrolled to receive GRC 17536	
Subject analysis set title	Placebo (MAD, Part II)
Subject analysis set type	Safety analysis
Subject analysis set description:	
Male subjects with mild asthma were enrolled to receive Placebo	
Subject analysis set title	GRC 17536 6mg (Allergen Challenge, Part III)
Subject analysis set type	Full analysis
Subject analysis set description:	
Male subjects with mild asthma were enrolled to receive 6 mg	
Subject analysis set title	GRC 17536 10 mg (Allergen Challenge, Part III)
Subject analysis set type	Full analysis
Subject analysis set description:	
Male subjects with mild asthma were enrolled to receive 10 mg	
Subject analysis set title	Placebo (Allergen Challenge, Part III)
Subject analysis set type	Full analysis
Subject analysis set description:	
Male subjects with mild asthma were enrolled and were randomised to receive placebo	

### Primary: Safety (SAD, Part I)

End point title	Safety (SAD, Part I)
End point description:	
End point type	Primary
End point timeframe:	
1 week	

End point values	GRC 17536 (SAD, Part I)	Placebo (SAD, Part I)		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	26	10		
Units: Number	26	10		

### Statistical analyses

Statistical analysis title	Summary of TEAE
Comparison groups	Placebo (SAD, Part I) v GRC 17536 (SAD, Part I)
Number of subjects included in analysis	36
Analysis specification	Pre-specified
Analysis type	other <sup>[1]</sup>
P-value	= 0 <sup>[2]</sup>
Method	not applicable
Parameter estimate	parameter estimate is not applicable

Notes:

[1] - The overall incidence of TEAEs was 40 % in subjects receiving placebo and 26.9% in the subjects receiving GRC 17536.

[2] - p value is not applicable as it safety analysis

### Primary: Safety (MAD, Part II)

End point title	Safety (MAD, Part II)
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End point description:

End point type	Primary
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End point timeframe:

2 Weeks

End point values	GRC 17536 (MAD, Part II)	Placebo (MAD, Part II)		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	17	6		
Units: Numbers	17	6		

### Statistical analyses

Statistical analysis title	Summary of TEAE
Comparison groups	GRC 17536 (MAD, Part II) v Placebo (MAD, Part II)
Number of subjects included in analysis	23
Analysis specification	Pre-specified
Analysis type	other <sup>[3]</sup>
P-value	= 0 <sup>[4]</sup>
Method	not applicable
Parameter estimate	Parameter estimate is not applicable

Notes:

[3] - The overall incidence of TEAEs was 88.2% in GRC 17536 BID and 66.7% in placebo reported.

[4] - p value is not applicable as it safety analysis.

### Primary: Max % decrease in FEV1 (Allergen Challenge, Part III)

End point title	Max % decrease in FEV1 (Allergen Challenge, Part III)
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End point description:

End point type	Primary
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End point timeframe:

8 hours

<b>End point values</b>	GRC 17536 6mg (Allergen Challenge, Part III)	GRC 17536 10 mg (Allergen Challenge, Part III)	Placebo (Allergen Challenge, Part III)	
Subject group type	Subject analysis set	Subject analysis set	Subject analysis set	
Number of subjects analysed	20	22	19	
Units: ml				
least squares mean (confidence interval 95%)	-31 (-39.15 to -22.85)	-34.94 (-42.99 to -26.89)	-31.62 (-39.77 to -23.48)	

## Statistical analyses

<b>Statistical analysis title</b>	Statistics of FEV1 (GRC 17536 10 mg Vs Placebo)
Comparison groups	GRC 17536 10 mg (Allergen Challenge, Part III) v Placebo (Allergen Challenge, Part III)
Number of subjects included in analysis	41
Analysis specification	Pre-specified
Analysis type	other
P-value	= 0.1337 <sup>[5]</sup>
Method	ANCOVA
Parameter estimate	parameter estimate is not applicable

Notes:

[5] - GRC 17536 10 mg vs Placebo

<b>Statistical analysis title</b>	Statistics of FEV1 (GRC 17536 6 mg Vs Placebo)
Comparison groups	GRC 17536 6mg (Allergen Challenge, Part III) v Placebo (Allergen Challenge, Part III)
Number of subjects included in analysis	39
Analysis specification	Pre-specified
Analysis type	other
P-value	= 0.7803 <sup>[6]</sup>
Method	ANCOVA

Notes:

[6] - GRC 17536 6 mg Vs placebo

## Adverse events

### Adverse events information

Timeframe for reporting adverse events:

1 week, 2 week & 3 weeks

Adverse event reporting additional description:

There were no deaths or SAEs reported in the study.

Assessment type	Systematic
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### Dictionary used

Dictionary name	MedDRA
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Dictionary version	15.1
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### Reporting groups

Reporting group title	GRC 17536 0.1 mg (SAD, Part I)
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Reporting group description: -

Reporting group title	GRC 17536 0.5 mg (SAD, Part I)
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Reporting group description: -

Reporting group title	GRC 17536 1.5 mg (SAD, Part I)
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Reporting group description: -

Reporting group title	GRC 17536 3 mg (SAD, Part I)
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Reporting group description: -

Reporting group title	GRC 17536 6 mg (SAD, Part I)
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Reporting group description: -

Reporting group title	GRC 17536 10 mg (SAD, Part I)
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Reporting group description: -

Reporting group title	Placebo (SAD, Part I)
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Reporting group description: -

Reporting group title	GRC 17536 3 mg (MAD, Part II)
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Reporting group description: -

Reporting group title	GRC 17536 6 mg (MAD, Part II)
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Reporting group description: -

Reporting group title	GRC 17536 10 mg (MAD, Part II)
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Reporting group description: -

Reporting group title	Placebo (MAD, Part II)
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Reporting group description: -

Reporting group title	GRC 17536 6 mg (Allergen Challenge, Part III)
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Reporting group description: -

Reporting group title	GRC 17536 10 mg (Allergen Challenge, Part III)
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Reporting group description: -

Reporting group title	Placebo (Allergen Challenge, Part III)
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Reporting group description: -

Serious adverse events	GRC 17536 0.1 mg (SAD, Part I)	GRC 17536 0.5 mg (SAD, Part I)	GRC 17536 1.5 mg (SAD, Part I)
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 3 (0.00%)	0 / 3 (0.00%)	0 / 4 (0.00%)
number of deaths (all causes)	0	0	0
number of deaths resulting from adverse events	0	0	0



<b>Serious adverse events</b>	GRC 17536 3 mg (SAD, Part I)	GRC 17536 6 mg (SAD, Part I)	GRC 17536 10 mg (SAD, Part I)
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 4 (0.00%)	0 / 6 (0.00%)	0 / 6 (0.00%)
number of deaths (all causes)	0	0	0
number of deaths resulting from adverse events	0	0	0

<b>Serious adverse events</b>	Placebo (SAD, Part I)	GRC 17536 3 mg (MAD, Part II)	GRC 17536 6 mg (MAD, Part II)
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 10 (0.00%)	0 / 6 (0.00%)	0 / 5 (0.00%)
number of deaths (all causes)	0	0	0
number of deaths resulting from adverse events	0	0	0

<b>Serious adverse events</b>	GRC 17536 10 mg (MAD, Part II)	Placebo (MAD, Part II)	GRC 17536 6 mg (Allergen Challenge, Part III)
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 6 (0.00%)	0 / 6 (0.00%)	0 / 21 (0.00%)
number of deaths (all causes)	0	0	0
number of deaths resulting from adverse events	0	0	0

<b>Serious adverse events</b>	GRC 17536 10 mg (Allergen Challenge, Part III)	Placebo (Allergen Challenge, Part III)	
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 23 (0.00%)	0 / 21 (0.00%)	
number of deaths (all causes)	0	0	
number of deaths resulting from adverse events	0	0	

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

<b>Non-serious adverse events</b>	GRC 17536 0.1 mg (SAD, Part I)	GRC 17536 0.5 mg (SAD, Part I)	GRC 17536 1.5 mg (SAD, Part I)
Total subjects affected by non-serious adverse events			
subjects affected / exposed	0 / 3 (0.00%)	1 / 3 (33.33%)	2 / 4 (50.00%)
General disorders and administration site conditions			

Chest discomfort subjects affected / exposed occurrences (all)	0 / 3 (0.00%) 0	0 / 3 (0.00%) 0	0 / 4 (0.00%) 0
Application Site reaction subjects affected / exposed occurrences (all)	0 / 3 (0.00%) 0	0 / 3 (0.00%) 0	0 / 4 (0.00%) 0
Catheter site hematoma subjects affected / exposed occurrences (all)	0 / 3 (0.00%) 0	0 / 3 (0.00%) 0	0 / 4 (0.00%) 0
Irritability subjects affected / exposed occurrences (all)	0 / 3 (0.00%) 0	0 / 3 (0.00%) 0	0 / 4 (0.00%) 0
Immune system disorders Seasonal allergy subjects affected / exposed occurrences (all)	0 / 3 (0.00%) 0	0 / 3 (0.00%) 0	0 / 4 (0.00%) 0
Respiratory, thoracic and mediastinal disorders Cough subjects affected / exposed occurrences (all)	0 / 3 (0.00%) 0	0 / 3 (0.00%) 0	0 / 4 (0.00%) 0
Nasal congestion subjects affected / exposed occurrences (all)	0 / 3 (0.00%) 0	0 / 3 (0.00%) 0	0 / 4 (0.00%) 0
Dyspnoea subjects affected / exposed occurrences (all)	0 / 3 (0.00%) 0	0 / 3 (0.00%) 0	0 / 4 (0.00%) 0
Dyspnoea exertional subjects affected / exposed occurrences (all)	0 / 3 (0.00%) 0	0 / 3 (0.00%) 0	0 / 4 (0.00%) 0
Oropharyngeal pain subjects affected / exposed occurrences (all)	0 / 3 (0.00%) 0	0 / 3 (0.00%) 0	0 / 4 (0.00%) 0
Wheezing subjects affected / exposed occurrences (all)	0 / 3 (0.00%) 0	0 / 3 (0.00%) 0	0 / 4 (0.00%) 0
Bronchospasm			

subjects affected / exposed occurrences (all)	0 / 3 (0.00%) 0	0 / 3 (0.00%) 0	0 / 4 (0.00%) 0
Asthma subjects affected / exposed occurrences (all)	0 / 3 (0.00%) 0	0 / 3 (0.00%) 0	0 / 4 (0.00%) 0
Rhinorrhoea subjects affected / exposed occurrences (all)	0 / 3 (0.00%) 0	0 / 3 (0.00%) 0	0 / 4 (0.00%) 0
Psychiatric disorders Insomnia subjects affected / exposed occurrences (all)	0 / 3 (0.00%) 0	0 / 3 (0.00%) 0	0 / 4 (0.00%) 0
Investigations Allergy test positive subjects affected / exposed occurrences (all)	0 / 3 (0.00%) 0	0 / 3 (0.00%) 0	0 / 4 (0.00%) 0
Injury, poisoning and procedural complications Contusion subjects affected / exposed occurrences (all)	0 / 3 (0.00%) 0	0 / 3 (0.00%) 0	0 / 4 (0.00%) 0
Muscle strain subjects affected / exposed occurrences (all)	0 / 3 (0.00%) 0	0 / 3 (0.00%) 0	0 / 4 (0.00%) 0
Nervous system disorders Headache subjects affected / exposed occurrences (all)	0 / 3 (0.00%) 0	0 / 3 (0.00%) 0	1 / 4 (25.00%) 1
Presyncope subjects affected / exposed occurrences (all)	0 / 3 (0.00%) 0	1 / 3 (33.33%) 1	0 / 4 (0.00%) 0
Dizziness subjects affected / exposed occurrences (all)	0 / 3 (0.00%) 0	0 / 3 (0.00%) 0	0 / 4 (0.00%) 0
Dizziness postural subjects affected / exposed occurrences (all)	0 / 3 (0.00%) 0	0 / 3 (0.00%) 0	0 / 4 (0.00%) 0

Eye disorders			
Eye pruritus			
subjects affected / exposed	0 / 3 (0.00%)	0 / 3 (0.00%)	0 / 4 (0.00%)
occurrences (all)	0	0	0
Gastrointestinal disorders			
Nausea			
subjects affected / exposed	0 / 3 (0.00%)	0 / 3 (0.00%)	0 / 4 (0.00%)
occurrences (all)	0	0	0
Flatulence			
subjects affected / exposed	0 / 3 (0.00%)	0 / 3 (0.00%)	0 / 4 (0.00%)
occurrences (all)	0	0	0
Constipation			
subjects affected / exposed	0 / 3 (0.00%)	0 / 3 (0.00%)	0 / 4 (0.00%)
occurrences (all)	0	0	0
Vomiting			
subjects affected / exposed	0 / 3 (0.00%)	0 / 3 (0.00%)	0 / 4 (0.00%)
occurrences (all)	0	0	0
Abdominal pain			
subjects affected / exposed	0 / 3 (0.00%)	0 / 3 (0.00%)	0 / 4 (0.00%)
occurrences (all)	0	0	0
Diarrhea			
subjects affected / exposed	0 / 3 (0.00%)	0 / 3 (0.00%)	0 / 4 (0.00%)
occurrences (all)	0	0	0
Skin and subcutaneous tissue disorders			
Dermatitis contact			
subjects affected / exposed	0 / 3 (0.00%)	0 / 3 (0.00%)	0 / 4 (0.00%)
occurrences (all)	0	0	0
Rash			
subjects affected / exposed	0 / 3 (0.00%)	0 / 3 (0.00%)	0 / 4 (0.00%)
occurrences (all)	0	0	0
Blister			
subjects affected / exposed	0 / 3 (0.00%)	0 / 3 (0.00%)	0 / 4 (0.00%)
occurrences (all)	0	0	0
Heat rash			
subjects affected / exposed	0 / 3 (0.00%)	0 / 3 (0.00%)	0 / 4 (0.00%)
occurrences (all)	0	0	0
Sunburn			

subjects affected / exposed occurrences (all)	0 / 3 (0.00%) 0	0 / 3 (0.00%) 0	0 / 4 (0.00%) 0
Renal and urinary disorders Urine odour abnormal subjects affected / exposed occurrences (all)	0 / 3 (0.00%) 0	0 / 3 (0.00%) 0	0 / 4 (0.00%) 0
Musculoskeletal and connective tissue disorders Back pain subjects affected / exposed occurrences (all)	0 / 3 (0.00%) 0	0 / 3 (0.00%) 0	1 / 4 (25.00%) 1
Pain in extremity subjects affected / exposed occurrences (all)	0 / 3 (0.00%) 0	0 / 3 (0.00%) 0	1 / 4 (25.00%) 1
Neck pain subjects affected / exposed occurrences (all)	0 / 3 (0.00%) 0	0 / 3 (0.00%) 0	0 / 4 (0.00%) 0
Limb discomfort subjects affected / exposed occurrences (all)	0 / 3 (0.00%) 0	0 / 3 (0.00%) 0	0 / 4 (0.00%) 0
Muscle twitching subjects affected / exposed occurrences (all)	0 / 3 (0.00%) 0	0 / 3 (0.00%) 0	0 / 4 (0.00%) 0
Musculoskeletal pain subjects affected / exposed occurrences (all)	0 / 3 (0.00%) 0	0 / 3 (0.00%) 0	0 / 4 (0.00%) 0
Myalgia subjects affected / exposed occurrences (all)	0 / 3 (0.00%) 0	0 / 3 (0.00%) 0	0 / 4 (0.00%) 0
Infections and infestations Upper respiratory tract infection subjects affected / exposed occurrences (all)	0 / 3 (0.00%) 0	0 / 3 (0.00%) 0	0 / 4 (0.00%) 0
Otitis externa subjects affected / exposed occurrences (all)	0 / 3 (0.00%) 0	0 / 3 (0.00%) 0	0 / 4 (0.00%) 0
Nasopharyngitis			

subjects affected / exposed occurrences (all)	0 / 3 (0.00%) 0	0 / 3 (0.00%) 0	0 / 4 (0.00%) 0
Oral Herpes subjects affected / exposed occurrences (all)	0 / 3 (0.00%) 0	0 / 3 (0.00%) 0	0 / 4 (0.00%) 0
Rhinitis subjects affected / exposed occurrences (all)	0 / 3 (0.00%) 0	0 / 3 (0.00%) 0	0 / 4 (0.00%) 0
Metabolism and nutrition disorders Decreased appetite subjects affected / exposed occurrences (all)	0 / 3 (0.00%) 0	0 / 3 (0.00%) 0	0 / 4 (0.00%) 0

<b>Non-serious adverse events</b>	GRC 17536 3 mg (SAD, Part I)	GRC 17536 6 mg (SAD, Part I)	GRC 17536 10 mg (SAD, Part I)
Total subjects affected by non-serious adverse events subjects affected / exposed	2 / 4 (50.00%)	1 / 6 (16.67%)	1 / 6 (16.67%)
General disorders and administration site conditions Chest discomfort subjects affected / exposed occurrences (all)	0 / 4 (0.00%) 0	0 / 6 (0.00%) 0	0 / 6 (0.00%) 0
Application Site reaction subjects affected / exposed occurrences (all)	0 / 4 (0.00%) 0	0 / 6 (0.00%) 0	0 / 6 (0.00%) 0
Catheter site hematoma subjects affected / exposed occurrences (all)	0 / 4 (0.00%) 0	0 / 6 (0.00%) 0	0 / 6 (0.00%) 0
Irritability subjects affected / exposed occurrences (all)	0 / 4 (0.00%) 0	0 / 6 (0.00%) 0	0 / 6 (0.00%) 0
Immune system disorders Seasonal allergy subjects affected / exposed occurrences (all)	0 / 4 (0.00%) 0	0 / 6 (0.00%) 0	0 / 6 (0.00%) 0
Respiratory, thoracic and mediastinal disorders Cough			

subjects affected / exposed	0 / 4 (0.00%)	0 / 6 (0.00%)	0 / 6 (0.00%)
occurrences (all)	0	0	0
Nasal congestion			
subjects affected / exposed	0 / 4 (0.00%)	0 / 6 (0.00%)	0 / 6 (0.00%)
occurrences (all)	0	0	0
Dyspnoea			
subjects affected / exposed	0 / 4 (0.00%)	0 / 6 (0.00%)	0 / 6 (0.00%)
occurrences (all)	0	0	0
Dyspnoea exertional			
subjects affected / exposed	0 / 4 (0.00%)	0 / 6 (0.00%)	0 / 6 (0.00%)
occurrences (all)	0	0	0
Oropharyngeal pain			
subjects affected / exposed	0 / 4 (0.00%)	0 / 6 (0.00%)	0 / 6 (0.00%)
occurrences (all)	0	0	0
Wheezing			
subjects affected / exposed	0 / 4 (0.00%)	0 / 6 (0.00%)	0 / 6 (0.00%)
occurrences (all)	0	0	0
Bronchospasm			
subjects affected / exposed	0 / 4 (0.00%)	0 / 6 (0.00%)	0 / 6 (0.00%)
occurrences (all)	0	0	0
Asthma			
subjects affected / exposed	0 / 4 (0.00%)	0 / 6 (0.00%)	0 / 6 (0.00%)
occurrences (all)	0	0	0
Rhinorrhoea			
subjects affected / exposed	0 / 4 (0.00%)	0 / 6 (0.00%)	0 / 6 (0.00%)
occurrences (all)	0	0	0
Psychiatric disorders			
Insomnia			
subjects affected / exposed	0 / 4 (0.00%)	0 / 6 (0.00%)	0 / 6 (0.00%)
occurrences (all)	0	0	0
Investigations			
Allergy test positive			
subjects affected / exposed	0 / 4 (0.00%)	0 / 6 (0.00%)	0 / 6 (0.00%)
occurrences (all)	0	0	0
Injury, poisoning and procedural complications			

Contusion subjects affected / exposed occurrences (all)	0 / 4 (0.00%) 0	0 / 6 (0.00%) 0	0 / 6 (0.00%) 0
Muscle strain subjects affected / exposed occurrences (all)	0 / 4 (0.00%) 0	0 / 6 (0.00%) 0	0 / 6 (0.00%) 0
Nervous system disorders			
Headache subjects affected / exposed occurrences (all)	2 / 4 (50.00%) 3	1 / 6 (16.67%) 1	0 / 6 (0.00%) 0
Presyncope subjects affected / exposed occurrences (all)	0 / 4 (0.00%) 0	0 / 6 (0.00%) 0	0 / 6 (0.00%) 0
Dizziness subjects affected / exposed occurrences (all)	0 / 4 (0.00%) 0	0 / 6 (0.00%) 0	0 / 6 (0.00%) 0
Dizziness postural subjects affected / exposed occurrences (all)	0 / 4 (0.00%) 0	0 / 6 (0.00%) 0	0 / 6 (0.00%) 0
Eye disorders			
Eye pruritus subjects affected / exposed occurrences (all)	0 / 4 (0.00%) 0	0 / 6 (0.00%) 0	0 / 6 (0.00%) 0
Gastrointestinal disorders			
Nausea subjects affected / exposed occurrences (all)	0 / 4 (0.00%) 0	0 / 6 (0.00%) 0	0 / 6 (0.00%) 0
Flatulence subjects affected / exposed occurrences (all)	0 / 4 (0.00%) 0	0 / 6 (0.00%) 0	0 / 6 (0.00%) 0
Constipation subjects affected / exposed occurrences (all)	0 / 4 (0.00%) 0	0 / 6 (0.00%) 0	1 / 6 (16.67%) 1
Vomiting subjects affected / exposed occurrences (all)	0 / 4 (0.00%) 0	0 / 6 (0.00%) 0	0 / 6 (0.00%) 0
Abdominal pain			



subjects affected / exposed occurrences (all)	0 / 4 (0.00%) 0	0 / 6 (0.00%) 0	0 / 6 (0.00%) 0
Diarrhea subjects affected / exposed occurrences (all)	0 / 4 (0.00%) 0	0 / 6 (0.00%) 0	0 / 6 (0.00%) 0
Skin and subcutaneous tissue disorders			
Dermatitis contact subjects affected / exposed occurrences (all)	0 / 4 (0.00%) 0	0 / 6 (0.00%) 0	0 / 6 (0.00%) 0
Rash subjects affected / exposed occurrences (all)	0 / 4 (0.00%) 0	0 / 6 (0.00%) 0	0 / 6 (0.00%) 0
Blister subjects affected / exposed occurrences (all)	0 / 4 (0.00%) 0	0 / 6 (0.00%) 0	0 / 6 (0.00%) 0
Heat rash subjects affected / exposed occurrences (all)	0 / 4 (0.00%) 0	0 / 6 (0.00%) 0	0 / 6 (0.00%) 0
Sunburn subjects affected / exposed occurrences (all)	0 / 4 (0.00%) 0	0 / 6 (0.00%) 0	0 / 6 (0.00%) 0
Renal and urinary disorders			
Urine odour abnormal subjects affected / exposed occurrences (all)	0 / 4 (0.00%) 0	0 / 6 (0.00%) 0	0 / 6 (0.00%) 0
Musculoskeletal and connective tissue disorders			
Back pain subjects affected / exposed occurrences (all)	0 / 4 (0.00%) 0	0 / 6 (0.00%) 0	0 / 6 (0.00%) 0
Pain in extremity subjects affected / exposed occurrences (all)	0 / 4 (0.00%) 0	0 / 6 (0.00%) 0	0 / 6 (0.00%) 0
Neck pain subjects affected / exposed occurrences (all)	0 / 4 (0.00%) 0	0 / 6 (0.00%) 0	0 / 6 (0.00%) 0
Limb discomfort			

subjects affected / exposed occurrences (all)	0 / 4 (0.00%) 0	0 / 6 (0.00%) 0	0 / 6 (0.00%) 0
Muscle twitching subjects affected / exposed occurrences (all)	0 / 4 (0.00%) 0	0 / 6 (0.00%) 0	0 / 6 (0.00%) 0
Musculoskeletal pain subjects affected / exposed occurrences (all)	0 / 4 (0.00%) 0	0 / 6 (0.00%) 0	0 / 6 (0.00%) 0
Myalgia subjects affected / exposed occurrences (all)	0 / 4 (0.00%) 0	0 / 6 (0.00%) 0	0 / 6 (0.00%) 0
Infections and infestations Upper respiratory tract infection subjects affected / exposed occurrences (all)	1 / 4 (25.00%) 1	0 / 6 (0.00%) 0	0 / 6 (0.00%) 0
Otitis externa subjects affected / exposed occurrences (all)	0 / 4 (0.00%) 0	0 / 6 (0.00%) 0	0 / 6 (0.00%) 0
Nasopharyngitis subjects affected / exposed occurrences (all)	0 / 4 (0.00%) 0	0 / 6 (0.00%) 0	0 / 6 (0.00%) 0
Oral Herpes subjects affected / exposed occurrences (all)	0 / 4 (0.00%) 0	0 / 6 (0.00%) 0	0 / 6 (0.00%) 0
Rhinitis subjects affected / exposed occurrences (all)	0 / 4 (0.00%) 0	0 / 6 (0.00%) 0	0 / 6 (0.00%) 0
Metabolism and nutrition disorders Decreased appetite subjects affected / exposed occurrences (all)	0 / 4 (0.00%) 0	0 / 6 (0.00%) 0	0 / 6 (0.00%) 0

<b>Non-serious adverse events</b>	Placebo (SAD, Part I)	GRC 17536 3 mg (MAD, Part II)	GRC 17536 6 mg (MAD, Part II)
Total subjects affected by non-serious adverse events			
subjects affected / exposed	4 / 10 (40.00%)	6 / 6 (100.00%)	5 / 5 (100.00%)
General disorders and administration site conditions			

Chest discomfort subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	1 / 6 (16.67%) 1	1 / 5 (20.00%) 1
Application Site reaction subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	0 / 6 (0.00%) 0	0 / 5 (0.00%) 0
Catheter site hematoma subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	1 / 6 (16.67%) 1	0 / 5 (0.00%) 0
Irritability subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	0 / 6 (0.00%) 0	0 / 5 (0.00%) 0
Immune system disorders Seasonal allergy subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	0 / 6 (0.00%) 0	0 / 5 (0.00%) 0
Respiratory, thoracic and mediastinal disorders Cough subjects affected / exposed occurrences (all)	1 / 10 (10.00%) 1	0 / 6 (0.00%) 0	0 / 5 (0.00%) 0
Nasal congestion subjects affected / exposed occurrences (all)	1 / 10 (10.00%) 1	0 / 6 (0.00%) 0	0 / 5 (0.00%) 0
Dyspnoea subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	0 / 6 (0.00%) 0	0 / 5 (0.00%) 0
Dyspnoea exertional subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	1 / 6 (16.67%) 1	0 / 5 (0.00%) 0
Oropharyngeal pain subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	1 / 6 (16.67%) 2	0 / 5 (0.00%) 0
Wheezing subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	0 / 6 (0.00%) 0	1 / 5 (20.00%) 1
Bronchospasm			

subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	0 / 6 (0.00%) 0	0 / 5 (0.00%) 0
Asthma subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	0 / 6 (0.00%) 0	0 / 5 (0.00%) 0
Rhinorrhoea subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	0 / 6 (0.00%) 0	0 / 5 (0.00%) 0
Psychiatric disorders Insomnia subjects affected / exposed occurrences (all)	1 / 10 (10.00%) 1	0 / 6 (0.00%) 0	0 / 5 (0.00%) 0
Investigations Allergy test positive subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	0 / 6 (0.00%) 0	0 / 5 (0.00%) 0
Injury, poisoning and procedural complications Contusion subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	0 / 6 (0.00%) 0	0 / 5 (0.00%) 0
Muscle strain subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	0 / 6 (0.00%) 0	0 / 5 (0.00%) 0
Nervous system disorders Headache subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	3 / 6 (50.00%) 5	1 / 5 (20.00%) 1
Presyncope subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	0 / 6 (0.00%) 0	0 / 5 (0.00%) 0
Dizziness subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	2 / 6 (33.33%) 2	0 / 5 (0.00%) 0
Dizziness postural subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	0 / 6 (0.00%) 0	1 / 5 (20.00%) 1

Eye disorders			
Eye pruritus			
subjects affected / exposed	0 / 10 (0.00%)	0 / 6 (0.00%)	0 / 5 (0.00%)
occurrences (all)	0	0	0
Gastrointestinal disorders			
Nausea			
subjects affected / exposed	0 / 10 (0.00%)	1 / 6 (16.67%)	0 / 5 (0.00%)
occurrences (all)	0	1	0
Flatulence			
subjects affected / exposed	0 / 10 (0.00%)	0 / 6 (0.00%)	1 / 5 (20.00%)
occurrences (all)	0	0	1
Constipation			
subjects affected / exposed	0 / 10 (0.00%)	0 / 6 (0.00%)	0 / 5 (0.00%)
occurrences (all)	0	0	0
Vomiting			
subjects affected / exposed	0 / 10 (0.00%)	0 / 6 (0.00%)	1 / 5 (20.00%)
occurrences (all)	0	0	1
Abdominal pain			
subjects affected / exposed	0 / 10 (0.00%)	0 / 6 (0.00%)	0 / 5 (0.00%)
occurrences (all)	0	0	0
Diarrhea			
subjects affected / exposed	0 / 10 (0.00%)	0 / 6 (0.00%)	0 / 5 (0.00%)
occurrences (all)	0	0	0
Skin and subcutaneous tissue disorders			
Dermatitis contact			
subjects affected / exposed	0 / 10 (0.00%)	1 / 6 (16.67%)	0 / 5 (0.00%)
occurrences (all)	0	1	0
Rash			
subjects affected / exposed	0 / 10 (0.00%)	0 / 6 (0.00%)	0 / 5 (0.00%)
occurrences (all)	0	0	0
Blister			
subjects affected / exposed	0 / 10 (0.00%)	0 / 6 (0.00%)	0 / 5 (0.00%)
occurrences (all)	0	0	0
Heat rash			
subjects affected / exposed	0 / 10 (0.00%)	0 / 6 (0.00%)	0 / 5 (0.00%)
occurrences (all)	0	0	0
Sunburn			

subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	0 / 6 (0.00%) 0	0 / 5 (0.00%) 0
Renal and urinary disorders Urine odour abnormal subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	0 / 6 (0.00%) 0	1 / 5 (20.00%) 1
Musculoskeletal and connective tissue disorders Back pain subjects affected / exposed occurrences (all)	1 / 10 (10.00%) 1	0 / 6 (0.00%) 0	0 / 5 (0.00%) 0
Pain in extremity subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	0 / 6 (0.00%) 0	0 / 5 (0.00%) 0
Neck pain subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	0 / 6 (0.00%) 0	1 / 5 (20.00%) 1
Limb discomfort subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	0 / 6 (0.00%) 0	0 / 5 (0.00%) 0
Muscle twitching subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	0 / 6 (0.00%) 0	0 / 5 (0.00%) 0
Musculoskeletal pain subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	0 / 6 (0.00%) 0	0 / 5 (0.00%) 0
Myalgia subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	0 / 6 (0.00%) 0	0 / 5 (0.00%) 0
Infections and infestations Upper respiratory tract infection subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	0 / 6 (0.00%) 0	0 / 5 (0.00%) 0
Otitis externa subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	1 / 6 (16.67%) 1	0 / 5 (0.00%) 0
Nasopharyngitis			

subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	0 / 6 (0.00%) 0	0 / 5 (0.00%) 0
Oral Herpes subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	0 / 6 (0.00%) 0	0 / 5 (0.00%) 0
Rhinitis subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	0 / 6 (0.00%) 0	0 / 5 (0.00%) 0
Metabolism and nutrition disorders Decreased appetite subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	1 / 6 (16.67%) 1	0 / 5 (0.00%) 0

<b>Non-serious adverse events</b>	GRC 17536 10 mg (MAD, Part II)	Placebo (MAD, Part II)	GRC 17536 6 mg (Allergen Challenge, Part III)
Total subjects affected by non-serious adverse events subjects affected / exposed	4 / 6 (66.67%)	4 / 6 (66.67%)	11 / 21 (52.38%)
General disorders and administration site conditions Chest discomfort subjects affected / exposed occurrences (all)	0 / 6 (0.00%) 0	1 / 6 (16.67%) 1	1 / 21 (4.76%) 2
Application Site reaction subjects affected / exposed occurrences (all)	1 / 6 (16.67%) 1	0 / 6 (0.00%) 0	0 / 21 (0.00%) 0
Catheter site hematoma subjects affected / exposed occurrences (all)	0 / 6 (0.00%) 0	0 / 6 (0.00%) 0	0 / 21 (0.00%) 0
Irritability subjects affected / exposed occurrences (all)	0 / 6 (0.00%) 0	0 / 6 (0.00%) 0	1 / 21 (4.76%) 1
Immune system disorders Seasonal allergy subjects affected / exposed occurrences (all)	0 / 6 (0.00%) 0	0 / 6 (0.00%) 0	2 / 21 (9.52%) 2
Respiratory, thoracic and mediastinal disorders			

Cough			
subjects affected / exposed	1 / 6 (16.67%)	1 / 6 (16.67%)	0 / 21 (0.00%)
occurrences (all)	1	1	0
Nasal congestion			
subjects affected / exposed	0 / 6 (0.00%)	0 / 6 (0.00%)	0 / 21 (0.00%)
occurrences (all)	0	0	0
Dyspnoea			
subjects affected / exposed	1 / 6 (16.67%)	0 / 6 (0.00%)	0 / 21 (0.00%)
occurrences (all)	1	0	0
Dyspnoea exertional			
subjects affected / exposed	0 / 6 (0.00%)	0 / 6 (0.00%)	0 / 21 (0.00%)
occurrences (all)	0	0	0
Oropharyngeal pain			
subjects affected / exposed	0 / 6 (0.00%)	0 / 6 (0.00%)	1 / 21 (4.76%)
occurrences (all)	0	0	1
Wheezing			
subjects affected / exposed	0 / 6 (0.00%)	0 / 6 (0.00%)	0 / 21 (0.00%)
occurrences (all)	0	0	0
Bronchospasm			
subjects affected / exposed	0 / 6 (0.00%)	0 / 6 (0.00%)	2 / 21 (9.52%)
occurrences (all)	0	0	2
Asthma			
subjects affected / exposed	0 / 6 (0.00%)	0 / 6 (0.00%)	1 / 21 (4.76%)
occurrences (all)	0	0	1
Rhinorrhoea			
subjects affected / exposed	0 / 6 (0.00%)	0 / 6 (0.00%)	0 / 21 (0.00%)
occurrences (all)	0	0	0
Psychiatric disorders			
Insomnia			
subjects affected / exposed	0 / 6 (0.00%)	0 / 6 (0.00%)	1 / 21 (4.76%)
occurrences (all)	0	0	1
Investigations			
Allergy test positive			
subjects affected / exposed	0 / 6 (0.00%)	0 / 6 (0.00%)	0 / 21 (0.00%)
occurrences (all)	0	0	0
Injury, poisoning and procedural complications			



Contusion			
subjects affected / exposed	1 / 6 (16.67%)	0 / 6 (0.00%)	0 / 21 (0.00%)
occurrences (all)	1	0	0
Muscle strain			
subjects affected / exposed	0 / 6 (0.00%)	0 / 6 (0.00%)	1 / 21 (4.76%)
occurrences (all)	0	0	1
Nervous system disorders			
Headache			
subjects affected / exposed	2 / 6 (33.33%)	3 / 6 (50.00%)	2 / 21 (9.52%)
occurrences (all)	2	3	2
Presyncope			
subjects affected / exposed	0 / 6 (0.00%)	0 / 6 (0.00%)	0 / 21 (0.00%)
occurrences (all)	0	0	0
Dizziness			
subjects affected / exposed	0 / 6 (0.00%)	0 / 6 (0.00%)	0 / 21 (0.00%)
occurrences (all)	0	0	0
Dizziness postural			
subjects affected / exposed	0 / 6 (0.00%)	0 / 6 (0.00%)	0 / 21 (0.00%)
occurrences (all)	0	0	0
Eye disorders			
Eye pruritus			
subjects affected / exposed	0 / 6 (0.00%)	0 / 6 (0.00%)	0 / 21 (0.00%)
occurrences (all)	0	0	0
Gastrointestinal disorders			
Nausea			
subjects affected / exposed	1 / 6 (16.67%)	0 / 6 (0.00%)	0 / 21 (0.00%)
occurrences (all)	1	0	0
Flatulence			
subjects affected / exposed	0 / 6 (0.00%)	0 / 6 (0.00%)	0 / 21 (0.00%)
occurrences (all)	0	0	0
Constipation			
subjects affected / exposed	0 / 6 (0.00%)	0 / 6 (0.00%)	0 / 21 (0.00%)
occurrences (all)	0	0	0
Vomiting			
subjects affected / exposed	0 / 6 (0.00%)	0 / 6 (0.00%)	0 / 21 (0.00%)
occurrences (all)	0	0	0
Abdominal pain			

subjects affected / exposed	0 / 6 (0.00%)	0 / 6 (0.00%)	0 / 21 (0.00%)
occurrences (all)	0	0	0
Diarrhea			
subjects affected / exposed	0 / 6 (0.00%)	0 / 6 (0.00%)	1 / 21 (4.76%)
occurrences (all)	0	0	1
Skin and subcutaneous tissue disorders			
Dermatitis contact			
subjects affected / exposed	0 / 6 (0.00%)	0 / 6 (0.00%)	0 / 21 (0.00%)
occurrences (all)	0	0	0
Rash			
subjects affected / exposed	1 / 6 (16.67%)	1 / 6 (16.67%)	1 / 21 (4.76%)
occurrences (all)	1	1	2
Blister			
subjects affected / exposed	0 / 6 (0.00%)	0 / 6 (0.00%)	0 / 21 (0.00%)
occurrences (all)	0	0	0
Heat rash			
subjects affected / exposed	0 / 6 (0.00%)	0 / 6 (0.00%)	1 / 21 (4.76%)
occurrences (all)	0	0	1
Sunburn			
subjects affected / exposed	0 / 6 (0.00%)	0 / 6 (0.00%)	1 / 21 (4.76%)
occurrences (all)	0	0	1
Renal and urinary disorders			
Urine odour abnormal			
subjects affected / exposed	0 / 6 (0.00%)	0 / 6 (0.00%)	0 / 21 (0.00%)
occurrences (all)	0	0	0
Musculoskeletal and connective tissue disorders			
Back pain			
subjects affected / exposed	0 / 6 (0.00%)	0 / 6 (0.00%)	0 / 21 (0.00%)
occurrences (all)	0	0	0
Pain in extremity			
subjects affected / exposed	0 / 6 (0.00%)	0 / 6 (0.00%)	0 / 21 (0.00%)
occurrences (all)	0	0	0
Neck pain			
subjects affected / exposed	0 / 6 (0.00%)	0 / 6 (0.00%)	0 / 21 (0.00%)
occurrences (all)	0	0	0
Limb discomfort			

subjects affected / exposed	0 / 6 (0.00%)	1 / 6 (16.67%)	0 / 21 (0.00%)
occurrences (all)	0	1	0
Muscle twitching			
subjects affected / exposed	0 / 6 (0.00%)	1 / 6 (16.67%)	0 / 21 (0.00%)
occurrences (all)	0	1	0
Musculoskeletal pain			
subjects affected / exposed	0 / 6 (0.00%)	1 / 6 (16.67%)	0 / 21 (0.00%)
occurrences (all)	0	1	0
Myalgia			
subjects affected / exposed	0 / 6 (0.00%)	0 / 6 (0.00%)	1 / 21 (4.76%)
occurrences (all)	0	0	1
Infections and infestations			
Upper respiratory tract infection			
subjects affected / exposed	0 / 6 (0.00%)	0 / 6 (0.00%)	0 / 21 (0.00%)
occurrences (all)	0	0	0
Otitis externa			
subjects affected / exposed	0 / 6 (0.00%)	0 / 6 (0.00%)	0 / 21 (0.00%)
occurrences (all)	0	0	0
Nasopharyngitis			
subjects affected / exposed	0 / 6 (0.00%)	0 / 6 (0.00%)	1 / 21 (4.76%)
occurrences (all)	0	0	1
Oral Herpes			
subjects affected / exposed	0 / 6 (0.00%)	0 / 6 (0.00%)	0 / 21 (0.00%)
occurrences (all)	0	0	0
Rhinitis			
subjects affected / exposed	0 / 6 (0.00%)	0 / 6 (0.00%)	0 / 21 (0.00%)
occurrences (all)	0	0	0
Metabolism and nutrition disorders			
Decreased appetite			
subjects affected / exposed	0 / 6 (0.00%)	0 / 6 (0.00%)	0 / 21 (0.00%)
occurrences (all)	0	0	0
<b>Non-serious adverse events</b>	GRC 17536 10 mg (Allergen Challenge, Part III)	Placebo (Allergen Challenge, Part III)	
Total subjects affected by non-serious adverse events			
subjects affected / exposed	11 / 23 (47.83%)	10 / 21 (47.62%)	

General disorders and administration site conditions			
Chest discomfort			
subjects affected / exposed	1 / 23 (4.35%)	0 / 21 (0.00%)	
occurrences (all)	1	0	
Application Site reaction			
subjects affected / exposed	0 / 23 (0.00%)	0 / 21 (0.00%)	
occurrences (all)	0	0	
Catheter site hematoma			
subjects affected / exposed	0 / 23 (0.00%)	0 / 21 (0.00%)	
occurrences (all)	0	0	
Irritability			
subjects affected / exposed	0 / 23 (0.00%)	0 / 21 (0.00%)	
occurrences (all)	0	0	
Immune system disorders			
Seasonal allergy			
subjects affected / exposed	1 / 23 (4.35%)	2 / 21 (9.52%)	
occurrences (all)	2	2	
Respiratory, thoracic and mediastinal disorders			
Cough			
subjects affected / exposed	0 / 23 (0.00%)	1 / 21 (4.76%)	
occurrences (all)	0	1	
Nasal congestion			
subjects affected / exposed	0 / 23 (0.00%)	1 / 21 (4.76%)	
occurrences (all)	0	1	
Dyspnoea			
subjects affected / exposed	0 / 23 (0.00%)	0 / 21 (0.00%)	
occurrences (all)	0	0	
Dyspnoea exertional			
subjects affected / exposed	0 / 23 (0.00%)	0 / 21 (0.00%)	
occurrences (all)	0	0	
Oropharyngeal pain			
subjects affected / exposed	0 / 23 (0.00%)	2 / 21 (9.52%)	
occurrences (all)	0	2	
Wheezing			
subjects affected / exposed	1 / 23 (4.35%)	1 / 21 (4.76%)	
occurrences (all)	1	1	

Bronchospasm subjects affected / exposed occurrences (all)	1 / 23 (4.35%) 1	0 / 21 (0.00%) 0	
Asthma subjects affected / exposed occurrences (all)	1 / 23 (4.35%) 1	1 / 21 (4.76%) 1	
Rhinorrhoea subjects affected / exposed occurrences (all)	1 / 23 (4.35%) 1	0 / 21 (0.00%) 0	
Psychiatric disorders Insomnia subjects affected / exposed occurrences (all)	0 / 23 (0.00%) 0	1 / 21 (4.76%) 1	
Investigations Allergy test positive subjects affected / exposed occurrences (all)	1 / 23 (4.35%) 1	0 / 21 (0.00%) 0	
Injury, poisoning and procedural complications Contusion subjects affected / exposed occurrences (all)	0 / 23 (0.00%) 0	0 / 21 (0.00%) 0	
Muscle strain subjects affected / exposed occurrences (all)	0 / 23 (0.00%) 0	0 / 21 (0.00%) 0	
Nervous system disorders Headache subjects affected / exposed occurrences (all)	4 / 23 (17.39%) 5	5 / 21 (23.81%) 6	
Presyncope subjects affected / exposed occurrences (all)	0 / 23 (0.00%) 0	0 / 21 (0.00%) 0	
Dizziness subjects affected / exposed occurrences (all)	0 / 23 (0.00%) 0	1 / 21 (4.76%) 1	
Dizziness postural			

subjects affected / exposed occurrences (all)	0 / 23 (0.00%) 0	0 / 21 (0.00%) 0	
Eye disorders Eye pruritus subjects affected / exposed occurrences (all)	1 / 23 (4.35%) 1	0 / 21 (0.00%) 0	
Gastrointestinal disorders Nausea subjects affected / exposed occurrences (all)  Flatulence subjects affected / exposed occurrences (all)  Constipation subjects affected / exposed occurrences (all)  Vomiting subjects affected / exposed occurrences (all)  Abdominal pain subjects affected / exposed occurrences (all)  Diarrhea subjects affected / exposed occurrences (all)	1 / 23 (4.35%) 1  1 / 23 (4.35%) 1  0 / 23 (0.00%) 0  0 / 23 (0.00%) 0  1 / 23 (4.35%) 1  1 / 23 (4.35%) 1	1 / 21 (4.76%) 1  0 / 21 (0.00%) 0  0 / 21 (0.00%) 0  0 / 21 (0.00%) 0  0 / 21 (0.00%) 0	
Skin and subcutaneous tissue disorders Dermatitis contact subjects affected / exposed occurrences (all)  Rash subjects affected / exposed occurrences (all)  Blister subjects affected / exposed occurrences (all)  Heat rash	0 / 23 (0.00%) 0  0 / 23 (0.00%) 0  1 / 23 (4.35%) 1	0 / 21 (0.00%) 0  0 / 21 (0.00%) 0  0 / 21 (0.00%) 0	

subjects affected / exposed occurrences (all)	0 / 23 (0.00%) 0	0 / 21 (0.00%) 0	
Sunburn subjects affected / exposed occurrences (all)	0 / 23 (0.00%) 0	0 / 21 (0.00%) 0	
Renal and urinary disorders Urine odour abnormal subjects affected / exposed occurrences (all)	0 / 23 (0.00%) 0	0 / 21 (0.00%) 0	
Musculoskeletal and connective tissue disorders Back pain subjects affected / exposed occurrences (all)	1 / 23 (4.35%) 1	0 / 21 (0.00%) 0	
Pain in extremity subjects affected / exposed occurrences (all)	0 / 23 (0.00%) 0	0 / 21 (0.00%) 0	
Neck pain subjects affected / exposed occurrences (all)	0 / 23 (0.00%) 0	0 / 21 (0.00%) 0	
Limb discomfort subjects affected / exposed occurrences (all)	0 / 23 (0.00%) 0	0 / 21 (0.00%) 0	
Muscle twitching subjects affected / exposed occurrences (all)	0 / 23 (0.00%) 0	0 / 21 (0.00%) 0	
Musculoskeletal pain subjects affected / exposed occurrences (all)	0 / 23 (0.00%) 0	0 / 21 (0.00%) 0	
Myalgia subjects affected / exposed occurrences (all)	0 / 23 (0.00%) 0	0 / 21 (0.00%) 0	
Infections and infestations Upper respiratory tract infection subjects affected / exposed occurrences (all)	2 / 23 (8.70%) 2	2 / 21 (9.52%) 2	
Otitis externa			

subjects affected / exposed occurrences (all)	0 / 23 (0.00%) 0	0 / 21 (0.00%) 0	
Nasopharyngitis subjects affected / exposed occurrences (all)	0 / 23 (0.00%) 0	0 / 21 (0.00%) 0	
Oral Herpes subjects affected / exposed occurrences (all)	1 / 23 (4.35%) 1	0 / 21 (0.00%) 0	
Rhinitis subjects affected / exposed occurrences (all)	1 / 23 (4.35%) 1	0 / 21 (0.00%) 0	
Metabolism and nutrition disorders Decreased appetite subjects affected / exposed occurrences (all)	0 / 23 (0.00%) 0	0 / 21 (0.00%) 0	



## More information

### Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
25 February 2013	The following changes were made in Protocol Version 3.0:  There was a change in the study design of Part 3 of the study with removal of Day 7 and incorporation of Day 5 and Day 9 and due to this an additional safety assessment were performed.

Notes:

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### Interruptions (globally)

Were there any global interruptions to the trial? No

### Limitations and caveats

None reported