

A First-in-Human study in healthy male volunteers to investigate the safety, tolerability and pharmacokinetics of recombinant human soluble Fc gamma receptor IIb, sFcγRIIb (SM101) administered intravenously as single ascending doses

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Registration date 28/09/2009	Overall study status Completed	<input type="checkbox"/> Protocol
Last Edited 28/09/2009	Condition category Haematological Disorders	<input type="checkbox"/> Statistical analysis plan
		<input type="checkbox"/> Results
		<input type="checkbox"/> Individual participant data
		<input type="checkbox"/> Record updated in last year

Plain English summary of protocol
Not provided at time of registration

Contact information

Type(s)
Scientific

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Additional identifiers

EudraCT/CTIS number

IRAS number

ClinicalTrials.gov number

Secondary identifying numbers

SM101-101-hv-08

Study information

Scientific Title

A First-in-Human Phase I, double-blind, randomised, placebo-controlled study in healthy male volunteers to investigate the safety, tolerability and pharmacokinetics of recombinant human soluble Fc gamma receptor IIb, sFcγRIIb (SM101) administered intravenously as single ascending doses

Study objectives

The primary objective of this first-in-human study is to evaluate the safety and tolerability of escalating single doses of intravenously administered sFcγRIIb (SM101).

The secondary objective of this study is to assess the pharmacokinetic profile of sFcγRIIb (SM101) in healthy male subjects.

Ethics approval required

Old ethics approval format

Ethics approval(s)

Ethics Committee approval was obtained from the Aerztekammer Nordrhein on 08/04/2009 (ref 2008402)

Study design

Single-centre double-blind randomised placebo controlled trial

Primary study design

Interventional

Secondary study design

Randomised controlled trial

Study setting(s)

Not specified

Study type(s)

Treatment

Participant information sheet

Not available in web format, please use the contact details below to request a patient information sheet

Health condition(s) or problem(s) studied

Chronic Adult Idiopathic Thrombocytopenic Purpura

Interventions

sFcγRIIb (SM101) is a recombinant, soluble, non-glycosylated version of the human Fcγ receptor FcγRIIb.

Seven consecutive regular dose groups (0.004, 0.04, 0.4, 1, 2.5, 5 and 10 mg/ kg) will receive one single intravenous administration of sFcγRIIb (SM101) or placebo over 60 minutes under fasted conditions. Further 4 intermediate dose groups may be included, if deemed necessary for safety reasons. Each dose group consists of 6 subjects (4 verum, 2 placebo). Decision on dose escalation will be subject to an independent DSMB.

After a 14-day screening period the subjects will either be enrolled in the verum or placebo arm and will be hospitalised one day before treatment start (day -1). They will be discharged 72 hours after dosing (day 4) and return to the site on day 6, 8 and 12 for ambulatory visits. The active part of the study will be completed on day 15 (conclusion visit). Subjects will attend a follow-up visit 6 months and 1 year after dosing to collect further safety data.

Intervention Type

Drug

Phase

Phase I

Drug/device/biological/vaccine name(s)

Recombinant human soluble Fc gamma receptor IIb, sFcγRIIb (SM101)

Primary outcome measure

Safety assessments:

1. Haematology, clinical chemistry, coagulation parameters, urinalysis (screening, day -1, pre-dose and 6, 24, 48 and 72 hours after drug administration and on days 6, 8, 12, and 15, follow-up (FU) at 6 months and FU 1 year)
2. IL-6 and CRP (pre-dose, 0.5, 1, 2, 4, 6, 8, 12, 24, 36, 48, 72 hours after start of infusion and on days 6, 8, 12 and day 15, FU 6 months and FU 1 year)
3. Vital signs, 12-lead ECG (screening, day -1, and 8, 10, 12, 16, 24, 36, 48 and 72 hours after drug administration and on day 15, FU 6 months and FU 1 year)
4. Physical examination (screening, day -1, 24 and 48 hours after drug administration and on day 4 before discharge, day 15, FU 6 months and FU 1 year)
5. Local tolerability (day 1 at 0.25, 0.5, 1, 2, 4 and 12 hours after start of infusion, days 2 and 3 and before discharge on day 4)
6. Adverse events (The National Cancer Institute [NCI] Common Terminology Criteria for Adverse Events [CTCAE] v 3.0)

Secondary outcome measures

Pharmacokinetic analysis:

Pre-dose, 0.25, 0.5, 1, 1.25, 1.5, 2, 4, 6, 8, 10, 12, 16, 24, 36, 48 and 72 hours after start of infusion

Overall study start date

30/04/2009

Completion date

02/10/2009

Eligibility

Key inclusion criteria

1. Male, Caucasian subjects aged between 18-40 years (inclusive)
2. Healthy subjects as determined by medical history, physical examination including vital signs, electrocardiography (ECG) and clinical laboratory testing
3. Body weight between 70-90 kg and body mass index (BMI) between 19 and 28 kg/m², extremes included
4. ECG recording based on a 12-lead ECG which is normal (PR <210 ms, QRS <110 ms, QTC 380-430 ms) or contains only slight deviations deemed to be of no clinical relevance by the investigator
5. Normal vital signs (after 5 minutes resting), blood pressure values (systolic \geq 100 and \leq 140 mmHg, diastolic \geq 50 and \leq 90 mmHg), heart rate between 40 and 90 beats per minute (bpm), body temperature <37.5°C
6. Subjects who are able and willing to give written informed consent
7. Normal white blood cell count, C-reactive protein (CRP) and interleukin-6 (IL-6) at screening and on the day before treatment start
8. Subjects must be using two acceptable methods for contraception (e.g. spermicide and condom) during the study and refrain from fathering a child in the 3 months following dosing

Participant type(s)

Patient

Age group

Adult

Lower age limit

18 Years

Upper age limit

40 Years

Sex

Male

Target number of participants

42

Key exclusion criteria

1. In the opinion of the investigator subjects with clinically significant history or presence of cardiovascular, respiratory, renal, hepatic, metabolic, endocrinological, gastrointestinal, hematological, neurological, dermatological, psychiatric diseases, cancer or other major diseases
2. Infection or known inflammatory process
3. Subjects with known autoimmune diseases or immunodeficiency or known family history of autoimmune diseases or immunodeficiency
4. Clinically significant allergic disease
5. Subjects with known serum hepatitis or who are carriers of the hepatitis B surface antigen or hepatitis C antibodies or with a positive result to the test for HIV 1/2 antibodies
6. Subjects who have received an investigational drug and/or a vaccination within 3 months prior to start of the treatment in study and those who anticipate receipt of a vaccine within 2 months after the last dose of study drug
7. Subjects, who have received prior treatment within 1 year with monoclonal antibodies or

other biologic agents

8. The use of any concomitant prescription or non-prescription medication within 14 days prior to the first administration of study medication until follow-up; or treatment with medication that may affect immune function (e.g. immunoglobulins, corticosteroids) within 6 months before dosing

9. Donation of blood (>400 ml) or blood products within the last 3 months prior to admission to the clinical unit or plasmapheresis within 4 weeks prior to study start

10. Definite or suspected personal history of adverse reactions or hypersensitivity to drugs especially to the trial compounds (E. coli-derived proteins, Tween, mannitol) or to compounds with a similar structure

11. Subjects who drink more than 5 cups or glasses of coffee, tea and/or cola per day

12. Subjects with a presence or history of drug and/or alcohol abuse or an average daily intake of more than 20 g alcohol per day

13. Subjects with a positive test for alcohol or drugs at screening and on the day before treatment start

14. Smokers of >5 cigarettes/day or equivalent

15. Subjects who are unlikely to be compliant and attend scheduled clinic visits as required

16. Participation in this study on a previous dose level

Date of first enrolment

30/04/2009

Date of final enrolment

02/10/2009

Locations

Countries of recruitment

Germany

Study participating centre

FOCUS Clinical Drug Development GmbH

Neuss

Germany

41460

Sponsor information

Organisation

SuppreMol GmbH (Germany)

Sponsor details

Am Klopferspitz 19

Martinsried

Germany

82152

Sponsor type

Industry

Website

<http://www.supremol.com>

ROR

<https://ror.org/05jgtkc28>

Funder(s)**Funder type**

Government

Funder Name

German Federal Ministry of Education and Research (Bundesministerium Fur Bildung und Forschung [BMBF]) (Germany) , Grant number: 01GU0623

Results and Publications**Publication and dissemination plan**

Not provided at time of registration

Intention to publish date**Individual participant data (IPD) sharing plan****IPD sharing plan summary**

Not provided at time of registration