

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

13 Jun 2026

**A randomized, open label, two treatments, two periods, two sequence, single dose, crossover, bioequivalence study of Rosuvastatin 20 mg tablet of Aburaihan Pharm Co., IRAN and Crestor 20 mg tablet of Astra-Zeneca in 24 healthy adult subjects under fasting condition**

### Protocol summary

#### Study aim

To characterize the rate and extent of bioavailability of test in comparison of reference product after single dose administration in healthy subjects under fasting condition. - To assess the bioequivalence of test formulation (Atorvastatin 20mg tablet of Aburaihan Pharm Co., IRAN) with reference product (Crestor 20mg tablet of Astra-Zeneca ) by means of AUC<sub>0-t</sub> and C<sub>max</sub> . - Safety and tolerability evaluation of test product in comparison with reference in subjects

#### Design

A randomized, open label, two treatments, two periods, single dose, crossover, bioequivalence study of Rosuvastatin 20 mg tablet of Aburaihan Pharm Co., IRAN in comparison of Crestor 20 mg tablet of Astra-Zeneca in 24 healthy subjects under fasting condition

#### Settings and conduct

1- 24 healthy subjects enroll in this project. Volunteers provide written informed consent. 2- A single dose of 2\*20 mg rosuvastatin will administer, in each study period. 3-The Blood samples collect before and at 1.0, 2.0, 3.0, 4.0, 4.5, 5.0, 6.0, 8.0, 10.0, 24.0 & 48.0 hr. post-dose. 4- The treatment phases separate by a washout period of at least 7 days. 5- Plasma samples will transfer to analytical Lab. to measure rosuvastatin in the plasma by means of HPLC.

#### Participants/Inclusion and exclusion criteria

Main Inclusion criteria: Healthy subjects aged between 18 -50 years old and weighted between 50 - 100 kg\\ Main exclusion criteria: Clinically relevant deviations from normal; Donation a unit of blood or participated in another clinical trial within the last three months; History of drug or alcohol abuse ; Used any medication within 7- 14 days before the first treatment; History of allergic to statins

#### Intervention groups

Intervention: single dose of Rosuvastatin 20mg tablet of Aburaihan Pharm Co., IRAN Control: single dose of Crestor 20mg tablet of Astra-Zeneca

#### Main outcome variables

Plasma concentration of rosuvastatin

### General information

#### Reason for update

#### Acronym

#### IRCT registration information

IRCT registration number: **IRCT20190706044111N9**

Registration date: **2019-09-13, 1398/06/22**

Registration timing: **retrospective**

Last update: **2019-09-13, 1398/06/22**

Update count: **0**

#### Registration date

2019-09-13, 1398/06/22

#### Registrant information

##### Name

Ladan Tayebi

##### Name of organization / entity

Pars Biopharmacy Research Co.

##### Country

Iran (Islamic Republic of)

##### Phone

+98 21 8895 6061

##### Email address

l.tayebi@parsbiopharmacy.com

#### Recruitment status

**Recruitment complete**

#### Funding source

#### Expected recruitment start date

2018-10-23, 1397/08/01  
**Expected recruitment end date**  
2019-05-21, 1398/02/31  
**Actual recruitment start date**  
2019-01-10, 1397/10/20  
**Actual recruitment end date**  
2019-03-08, 1397/12/17  
**Trial completion date**  
2019-03-08, 1397/12/17

#### Scientific title

A randomized, open label, two treatments, two periods, two sequence, single dose, crossover, bioequivalence study of Rosuvastatin 20 mg tablet of Aburaihan Pharm Co., IRAN and Crestor 20 mg tablet of Astra-Zeneca in 24 healthy adult subjects under fasting condition

#### Public title

Bioequivalence study of Rosuvastatin 20 mg tablet of Aburaihan Pharm Co., IRAN

#### Purpose

Other

#### Inclusion/Exclusion criteria

##### Inclusion criteria:

- Aged between 18 - 50 years - Body weight between 50 - 100 kg - Having good health on the basis of medical history and physical & clinical examination - Understand the procedures and give written informed consent

##### Exclusion criteria:

Subject showed clinically relevant deviations from normal in physical examination. Subject had undergone surgery of the gastro-intestinal tract Subject had donated a unit of blood or participated in another clinical trial, within the last three months before the first treatment Subject had a history of drug or alcohol abuse. Subject who smokes more than 10 cigarettes per day. Subject had used any prescription medication within 14 days, or any non-prescription medication within 7 days, before the first treatment. Subject had a history of allergic to statins

#### Age

From **18 years** old to **50 years** old

#### Gender

Both

#### Phase

Bioequivalence

#### Groups that have been masked

*No information*

#### Sample size

Target sample size: **24**

More than 1 sample in each individual

Number of samples in each individual: **2**

Each volunteer, 2 times take medicine in the study. One time test product and the other time reference product with at least one week wash-out period.

Actual sample size reached: **24**

More than 1 sample in each individual

Actual sample size in each individual: **2**

Each volunteer took 2 times medicine in the study. One time test product and the other time reference product with at least one week wash-out period.

#### Randomization (investigator's opinion)

Not randomized

#### Randomization description

#### Blinding (investigator's opinion)

Not blinded

#### Blinding description

#### Placebo

Not used

#### Assignment

Crossover

#### Other design features

## Secondary Ids

empty

## Ethics committees

### 1

#### Ethics committee

##### Name of ethics committee

Ethicc committee of Shahid Beheshti University of Medical Sciences

##### Street address

Velenjak, 7th Floor, Bldg No.2 SBUMS, Arabi Ave

##### City

Tehran

##### Province

Tehran

##### Postal code

1985717443

#### Approval date

2018-09-02, 1397/06/11

#### Ethics committee reference number

IR.SBMU.RETECH.REC.1397.358

## Health conditions studied

### 1

#### Description of health condition studied

Hyperlipidemia

#### ICD-10 code

#### ICD-10 code description

## Primary outcomes

### 1

#### Description

Plasma concentration of rosuvastatin

#### Timepoint

At 0 (before dosing), 1.0, 2.0, 3.0, 4.0, 4.5, 5.0, 6.0, 7.0, 8.0, 10.0, 24.0 & 48.0 hr. after dosing

#### Method of measurement

HPLC

## Secondary outcomes

empty

## Intervention groups

### 1

#### Description

Intervention group: Single dose of Rosuvastatin 20mg tablet of Aburaihan Pharm Co., IRAN

#### Category

Other

### 2

#### Description

Control group: Single dose of Crestor 20mg tablet of Astra-Zeneca

#### Category

Other

## Recruitment centers

### 1

#### Recruitment center

##### Name of recruitment center

Core Research Lab. of Zahedan University of Medical SciencesS

##### Full name of responsible person

Gholamreza Komeili

##### Street address

Emam Ali Hospital, Salamat Blv., Khalij-e-Fars Highway

##### City

Zahedan

##### Province

Sistan-va-Balouchestan

##### Postal code

9816743111

##### Phone

+98 54 3329 5664

##### Fax

+98 54 3329 5665

##### Email

crl@zaums.ac.ir

##### Web page address

<http://crl.zaums.ac.ir/>

## Sponsors / Funding sources

### 1

#### Sponsor

##### Name of organization / entity

Aburaihan Pharm Co.

##### Full name of responsible person

Seifi Payam

##### Street address

Tirandaz Ave. No.1, Tehran 16

##### City

Tehran

##### Province

Tehran

##### Postal code

1654613111

##### Phone

+98 21 7770 7173

##### Fax

+98 21 7770 2066

##### Email

[info@aburaihan.com](mailto:info@aburaihan.com)

##### Web page address

##### Grant name

##### Grant code / Reference number

##### Is the source of funding the same sponsor organization/entity?

Yes

##### Title of funding source

Aburaihan Pharm Co.

##### Proportion provided by this source

100

##### Public or private sector

Private

##### Domestic or foreign origin

Domestic

##### Category of foreign source of funding

*empty*

##### Country of origin

##### Type of organization providing the funding

Industry

## Person responsible for general inquiries

#### Contact

##### Name of organization / entity

Pars Biopharmacy Research Co.

##### Full name of responsible person

Ladan Tayebi

##### Position

Managing Director

##### Latest degree

Medical doctor

##### Other areas of specialty/work

Medical Pharmacy

##### Street address

1st floor, Saeidi Dd end, Felestin Ave.

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1416673971

##### Phone

+98 21 8895 6061

##### Fax

+98 21 8896 9958

##### Email

[l.tayebi@parsbiopharmacy.com](mailto:l.tayebi@parsbiopharmacy.com)

##### Web page address

## Person responsible for scientific inquiries

#### Contact

##### Name of organization / entity

Pars Biopharmacy Research Co.

**Full name of responsible person**

Ladan Tayebi

**Position**

Managing Director

**Latest degree**

Medical doctor

**Other areas of specialty/work**

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**Email**

l.tayebi@parsbiopharmacy.com

**Web page address****Sharing plan****Deidentified Individual Participant Data Set (IPD)**

Undecided - It is not yet known if there will be a plan to make this available

**Study Protocol**

Undecided - It is not yet known if there will be a plan to make this available

**Statistical Analysis Plan**

Undecided - It is not yet known if there will be a plan to make this available

**Informed Consent Form**

Undecided - It is not yet known if there will be a plan to make this available

**Clinical Study Report**

Undecided - It is not yet known if there will be a plan to make this available

**Analytic Code**

Undecided - It is not yet known if there will be a plan to make this available

**Data Dictionary**

Undecided - It is not yet known if there will be a plan to make this available

**Person responsible for updating data****Contact****Name of organization / entity**

Pars Biopharmacy Research Co.

**Full name of responsible person**

Ladan Tayebi

**Position**

Managing Director

**Latest degree**

Medical doctor

**Other areas of specialty/work**

Medical Pharmacy

**Street address**