

Clinical Trial Protocol

Iranian Registry of Clinical Trials

28 Jun 2026

Evaluation of physical, chemical and rheological properties of chocolate prepared with D-tagatose, galactooligosaccharide and stevia and sensory evaluation of the very chocolate in healthy subjects, and comparing the results to those of conventional chocolate available in the market

Protocol summary

Summary

The aim of the present study is to come up with an appropriate chocolate formulation, using tagatose, galactooligosaccharide and stevia and evaluation of its physico-chemical, rheological and sensory properties. Sensory evaluation of the present study is a single-blinded trial from which, subjects with a cold will be excluded. 10 panelists will be recruited. The subjects will consume 20 grams of conventional chocolate prepared with 50% sucrose, 30% cocoa butter and 20% cocoa mass. After 10 minutes of interval and rinsing their mouth with a glass of water, panelists will be provided with 20 grams of a chocolate so similar to the conventional type regarding the chemical structure, except that 5% of the total weight is replaced by a mixture of tagatose, galactooligosaccharide and stevia. Special questionnaires evaluating sensorial characteristics of the chocolates including flavor, taste, after taste, mouth feeling and general acceptance of the sample will be filled in instantly by the participants, after consuming each chocolate. Sensory evaluation will be performed just once for each subject.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201112205554N4**
Registration date: **2012-03-24, 1391/01/05**
Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2012-03-24, 1391/01/05

Registrant information

Name

Aziz Homayouni

Name of organization / entity

Tabriz University of Medical Sciences

Country

Iran (Islamic Republic of)

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+98 41 1231 3431

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Recruitment status

Recruitment complete

Funding source

Vice Chancellor for Research, Tabriz University of Medical Sciences

Expected recruitment start date

2012-02-14, 1390/11/25

Expected recruitment end date

2012-03-15, 1390/12/25

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Evaluation of physical, chemical and rheological properties of chocolate prepared with D-tagatose, galactooligosaccharide and stevia and sensory evaluation of the very chocolate in healthy subjects, and comparing the results to those of conventional chocolate available in the market

Public title

Effect of D-tagatose, galactooligosaccharide and stevia

on properties of chocolate

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criteria : not having a cold Exclusion criteria :
having a cold

Age

From **10 years** old to **70 years** old

Gender

Both

Phase

2-3

Groups that have been masked

No information

Sample size

Target sample size: **10**

Randomization (investigator's opinion)

N/A

Randomization description

Blinding (investigator's opinion)

Single blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of Tabriz University of Medical
Sciences

Street address

Golbad Ave

City

Tabriz

Postal code

Approval date

2012-02-20, 1390/12/01

Ethics committee reference number

90102

Health conditions studied

1

Description of health condition studied

Healthy subjects

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Acceptance of the sample

Timepoint

Right after consumption

Method of measurement

Questionnaire

Secondary outcomes

empty

Intervention groups

1

Description

20 grams of conventional chocolate available in the
market

Category

Prevention

2

Description

20 grams of chocolate containing 5% tagatose,
galactooligosachharide and stevia added to achieve
better texture

Category

Prevention

Recruitment centers

1

Recruitment center

Name of recruitment center

Tabriz University of Medical Sciences

Full name of responsible person

Aziz Homayouni Rad

Street address

Attar Neyshapoori Avenue, Golgasht Street

City

Tabriz

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice chancellor for Research, Tabriz University of
Medical Sciences

Full name of responsible person

Mohammadreza Rashidi

Street address

Golbad Street

City

Tabriz

Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Vice chancellor for Research, Tabriz University of Medical Sciences
Proportion provided by this source
100
Public or private sector
empty
Domestic or foreign origin
empty
Category of foreign source of funding
empty
Country of origin
Type of organization providing the funding
empty

Person responsible for general inquiries

Contact
Name of organization / entity
Tabriz University of Medical Sciences
Full name of responsible person
Aziz Homayouni Rad
Position
Assistant professor/PhD in food science and nutrition
Other areas of specialty/work
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Web page address

Person responsible for updating data

Contact

Sharing plan

Deidentified Individual Participant Data Set (IPD)
empty
Study Protocol
empty
Statistical Analysis Plan
empty
Informed Consent Form
empty
Clinical Study Report
empty
Analytic Code
empty
Data Dictionary
empty