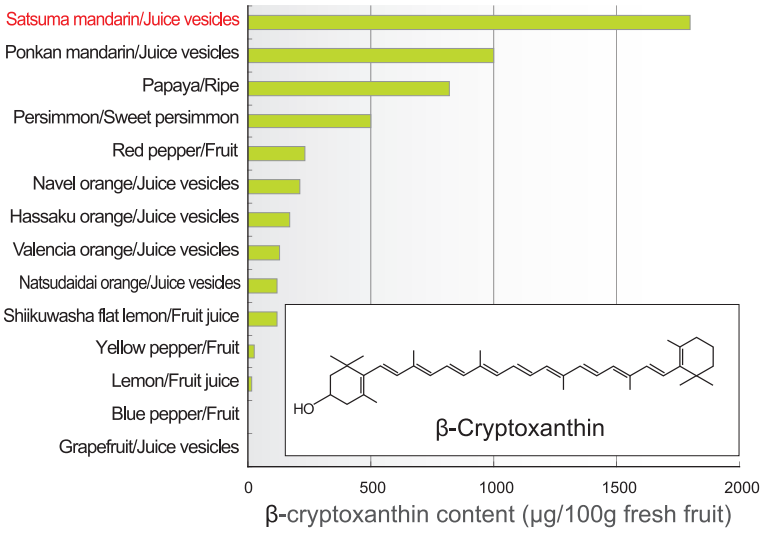
Powdered Satsuma mandarin pulp

Cryptobeta D

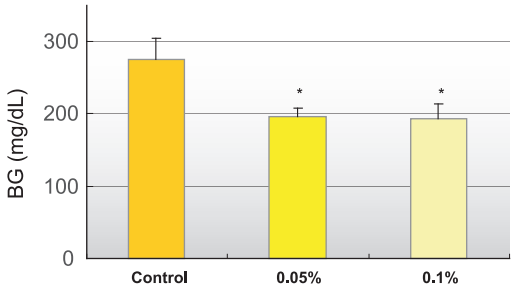
High concentration β-cryptoxanthin ingredient

β-Cryptoxanthin amount found in fruits and vegetables



(Standard Tables of Food Composition 2015)

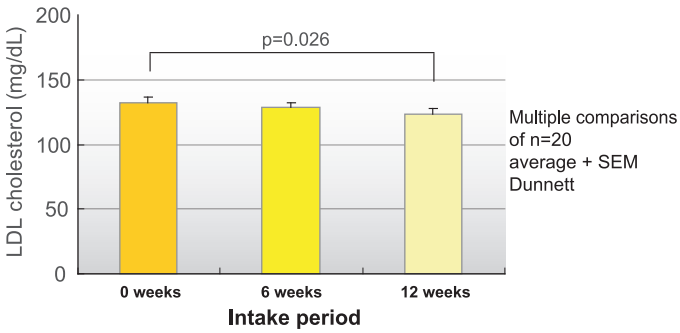
Efficacy test (mice)



The concentration of β-cryptoxanthin in the test food

Animal: KKAy mice
Group: control group, 0.05% and 0.1% β-cryptoxanthin intake group
Method: the 3 groups were kept under pair-feeding for 4 weeks.
(Oyama, Kana *et al.* β-Cryptoxanthin improves glucose and lipid metabolism in obese and diabetic model mice. *Japan Society for the Study of Obesity*(2008).)

Efficacy test (human)



Subject: 40-74 year old adults with pre-metabolic syndrome.
Group: group that takes 1 ,2, 3 mg/day of β-Cryptoxanthin
Method: 3 groups intook various test foods for 12 consecutive weeks.
(Kawai, Hiroshige *et al.* Effects of *Citrus unshiu* extract beverages containing β-cryptoxanthin on humans suspected of having metabolic syndrome. Presented at the 63th Annual Scientific Meeting of the Japan Society of Nutrition and Food Science Society(2009).)

Product specifications

◇Product standards

Properties: this product is a powder with a distinct orange color.
Water content: 5.0% or less
β-Cryptoxanthin: 1.0 mg/g or more
Arsenic: 2 ppm or less
Heavy metals: 20 ppm or less
Total viable count: 3,000/g or less
Fungi count: 100/g or less
Coliform bacteria: Negative

◇Storage method

Avoid high temperatures and humidity, and keep sealed in a dark place at room temperature.

◇Packaging

1 kg (aluminum bag with an oxygen absorber)

◇Ingredients

Concentrate of the fruit juice extraction residue of satsuma mandarin (*Citrus unshiu* Marc.).
(100% made in Japan)

◇Use for

Preventing metabolic syndrome
Improving lipid metabolism
Improving liver function

◇Examples of application

Supplements, etc.

◇Recommended daily intake

0.5-3 g/day (0.5-3 mg/day of β-cryptoxanthin)

Appearance

Safety tests

Each of the tests use Satsuma mandarin paste from which this product is made.

◇Genotoxicity test

Bacterial reverse mutation test (Ames test)

◇Acute toxicity test (single dose toxicity test)

1,000 μg/kg of β-cryptoxanthin (single dose)
on 5 male and 5 female rats

◇Overdose test on humans

Test food containing 15 mg/day of β-cryptoxanthin on 6 adult males and females, taken for 4 weeks

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