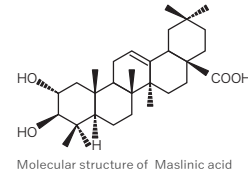


Olive Fruit Maslinic acid



Powder Ingredient including Maslinic acid

This product is extracted and purified from olive fruit.
This ingredient contains Maslinic acid.



Specifications

Product Name	Olive Fruit Maslinic acid P10	Olive Fruit Maslinic acid P30
Maslinic acid Content	10 % or more	30 % or more
Packing	1kg, 100g	
Appearance	Pale yellow to light green powder	
Total Plate Count	≦ 1×10 ³ cfu/g	
Coliforms	Negative	
Heavy Metals (as Pb)	≦ 20 ppm	
Arsenic (as As ₂ O ₃)	≦ 2 ppm	

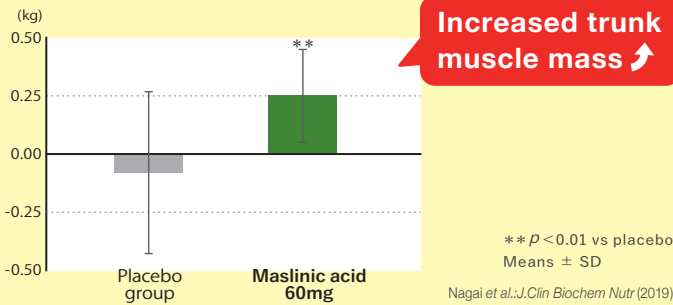


Research and Evidences

Changes in Muscle

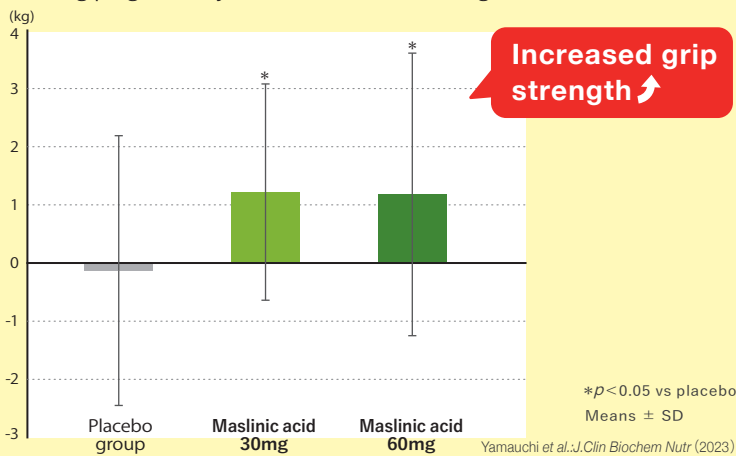


Participants: 71-79 years, 39 subjects, RCT
Period of administration: 12 weeks
Dosage: Maslinic acid 60 mg/day
Training program: Physical exercise



Changes in Grip Strength

Participants: 48-86 years, 69 subjects, RCT
Period of administration: 12 weeks
Dosage: Maslinic acid 30 mg/day, 60 mg/day
Training program: Physical exercise and walking

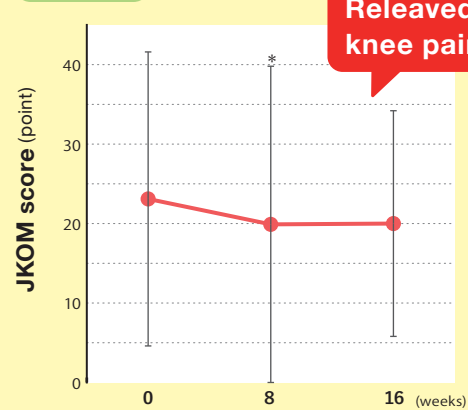


Efficacy in Relief of Knee Joint Pain

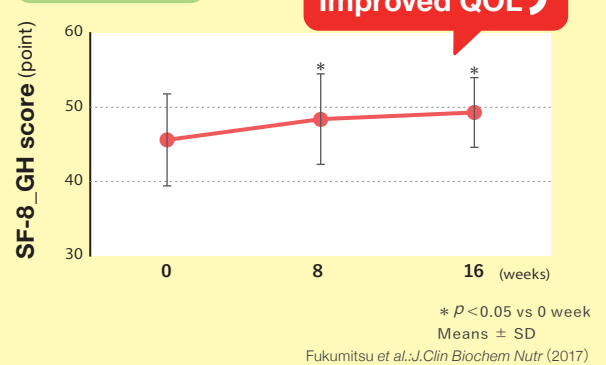
Participants: 29 subjects (avg. 70.7 years) / an open-label study
Period of administration: 16 weeks
Dosage: Maslinic acid 30 mg/day



Knee pain



General health



Protein powders



Powdered beverages



Jellies



Gummy, candies



granules



Supplements

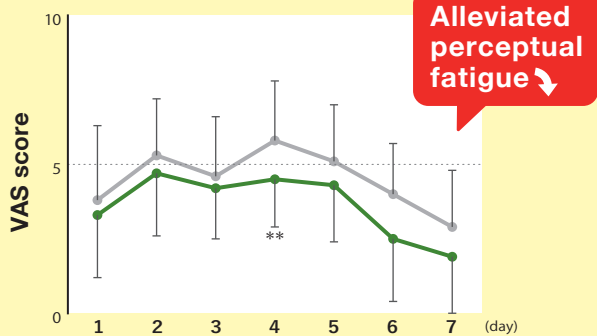
Research and Evidences

Alleviation of Fatigue and Muscle Soreness



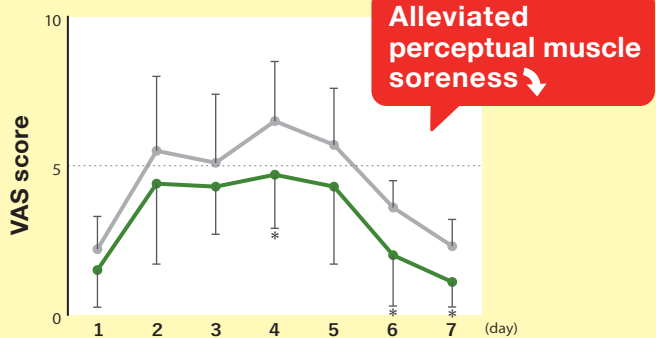
Participants: 19-21 years, 12 subjects, RCT crossover design
 Period of administration: 1 weeks
 Dosage: Maslinic acid 60 mg/day
 Training program: Physical training

Fatigue



Alleviated perceptual fatigue

Muscle Soreness



Alleviated perceptual muscle soreness

● Placebo ● Maslinic acid 60 mg/day * $p < 0.05$, ** $p < 0.01$ vs placebo
 Means \pm SD

Shirai et al.: J Int Soc Sports Nutr (2023)

Stability Test

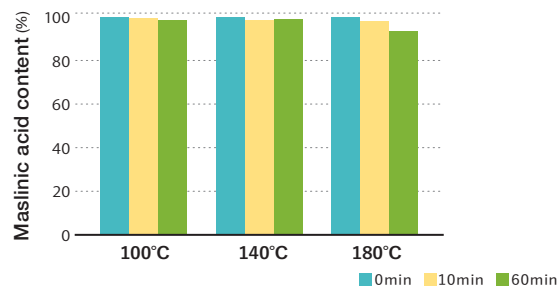
Olive Fruit Maslinic acid is well stable against heat and pH.

Heat Stability Test

Dissolved Olive Fruit Maslinic acid by methanol and glycerin, heated at each degree in 10min and/or 60min, and analyzed by HPLC.

Remain over 90% at 180°C in 60min = Stable heat

It is suitable products involving sterilization and other heat treatments in processing.

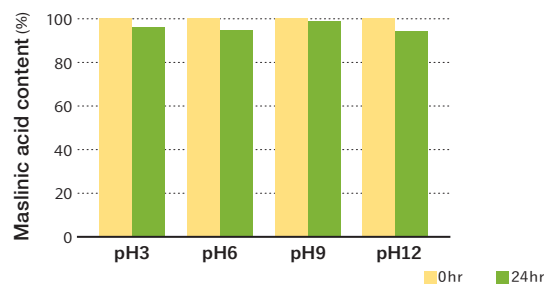


pH Stability Test

Dissolved Olive Fruit Maslinic acid by water-containing ethanol, adjusted pH, and analyzed by HPLC.

Remain over 90% from pH3 to pH12 = Stable wide range of pH

It can be equally used in processed foods with an acidic or alkaline tendency.

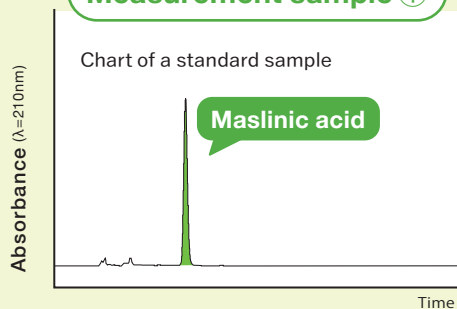


The analysis of Maslinic acid content using HPLC

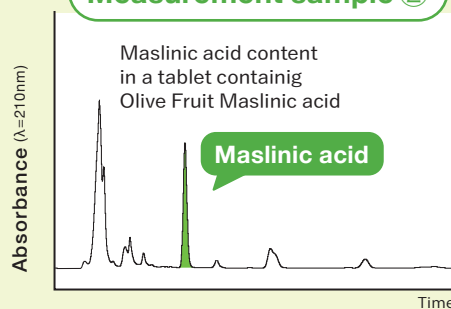
We could quantitate the content of Maslinic acid in raw materials and processed foods.

If you have any questions in relation to quantitative determination of Maslinic acid in products, please feel free to contact us.

Measurement sample ①



Measurement sample ②



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