

Crategolic acid Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Crategolic acid

Catalog No.: CFN98669

Cas No.: 4373-41-5

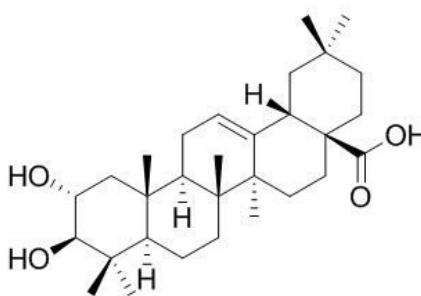
Purity: >=98%

M.F: C₃₀H₄₈O₄

M.W: 472.70

Physical Description: Powder

Synonyms: Maslinic acid;(2 α ,3 β)-2,3-Dihydroxy-olean-12-en-28-oic acid.



[Intended Use]

1. Reference standards;
2. Pharmacological research;
3. Feed additives;
4. Synthetic precursor compounds;
5. Intermediates & Fine Chemicals;
6. Others.

[Source]

The leaves of *Crataegus pinnatifida* Bge.

[Biological Activity or Inhibitors]

Crategolic acid, isolated from the methanol extracts of clove (*Syzygium aromaticum* Merrill et Perry, Myrtaceae), has differentiation-inducing activity against human acute promyelocytic leukemia cell line (HL-60).^[1]

Crategolic acid has antioxidant activity.^[2]

Maslinic acid (MA) and oleanolic acid (OA), the main triterpenic acids present in olive, have important properties for health and disease prevention, MA selectively inhibits cell proliferation of the HT29 human colon-cancer cell line by inducing selective apoptosis.^[3]

Maslinic acid as a feed additive to stimulate growth and hepatic protein-turnover rates in rainbow trout (*Onchorhynchus mykiss*).^[4]

Maslinic acid can potentiate the anti-tumor activities of TNF02± and inhibit pancreatic tumor growth and invasion by activating caspase-dependent apoptotic pathway and by suppressing NF-0202B activation and its downstream gene expression, thus, MA together with TNF02± could be new promising agents in the treatment of pancreatic cancer.^[5]

Maslinic acid is present both cytotoxic and antiviral activities.^[6]

Maslinic acid suppresses RANKL-induced osteoclastogenesis through NF-κB and MAPK/AP-1 signaling pathways and that MA is a promising agent in the treatment of osteoclast-related diseases such as osteoporosis.^[7]

Maslinic acid has beneficial effects on hypoxic neurons by suppressing iNOS activation, which may, in turn, provide neuroprotection.^[8]

Maslinic acid has anti-inflammatory effects, it can significantly suppress the expression of cyclooxygenase 2 (COX-2) and inducible nitric oxide synthase (iNOS) at protein and mRNA levels, suggests that maslinic acid can potentially reduce neuroinflammation by inhibiting NF-κB signal transducer pathway in cultured cortical astrocytes.^[9]

[Solvent]

Chloroform, Dichloromethane, Ethyl Acetate, DMSO, Acetone, etc.

[HPLC Method]^[10]

Mobile phase: Methanol- 1.0% Acetic acid H₂O=88:12 ;

Flow rate: 1.0 ml/min;

Column temperature: 30 °C;

The wave length of determination: 215 nm.

[Storage]

2-8°C, Protected from air and light, refrigerate or freeze.

[References]

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