Natural Products

ChemFaces

Nigranoic acid Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Nigranoic acid

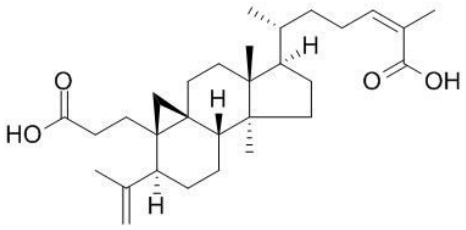
Catalog No.: CFN90253

Cas No.: 39111-07-4

Purity: > 95%

M.F: $C_{30}H_{46}O_4$

M.W: 470.69



Physical Description: Powder

Synonyms:(3S,3aR,4aS,6aR,7R,9aS,9bS)-7-[(1R,4Z)-5-Carboxy-1-methyl-4-hexen-1-yl] decahydro-6a,9a-dimethyl-3-(1-methylethenyl)-1H-cyclopenta[a]cyclopropa[e]naphthalene-3a(4H)-propanoic acid.

[Intended Use]

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

[Source]

The fruits of *Schisandra chinensis.*

[Biological Activity or Inhibitors]

Nigranoic acid, a triterpenoid from Schisandra sphaerandra, it can inhibits HIV-1 reverse transcriptase. [1]

Nigranoic acid has a strong protective effect on rat cerebral ischemia-reperfusion injury, and acts by downregulating nerve cell apoptosis by preventing the overactivation of poly ADP-ribose polymerase (PARP) and apoptosis-inducing factor (AIF) nuclear translocation.[2]

Nigranoic acid is able to promote NO production and stimulate phosphorylation of ERK1/2 through Ca2+ influx, further impact expression of BDNF and c-fos, which provides evidence for the effects of nigranoic acid that may be benefit to enhance mental and intellectual functions.[3]

Nigranoic acid possesses cytotoxic activity on Leukemia and Hela cells. [4]

[Solvent]

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

[HPLC Method][5]

HPLC-ELSD:

Mobile phase: Methanol -H2O=82:18 ;

Flow rate: 2.0 ml/min;

Column temperature: 25 ℃;

Drift tube temperature: 120 ℃;

Flow rate of gas : 2.0L/min;

Carrier gas: N2.

[Storage]

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

[References]

[1] Sun HD, Qiu SX, Lin L Z, *et al. J. Nat. Prod., 1996, 59(5):525-7.*

[2] Feng T, Liu Y, Li C, *et al. Cell Biochem. Biophys., 2015, 71(1):345-51.*

[3] Yuan X X, Yang L P, Yang Z L, *et al. J.Ethnopharmacol., 2014, 153(3):725-31.*

[4] Chen Y G, Wu Z C, Lv Y P, *et al. Arch.Pharm. Res., 2003, 26(11):912-6.*

[5] Feng W B, Yang G Y, Lei C, *et al. Physical Testing & Chemical Analysis, 2009, 45(4): 451-3.*

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