Natural Products

ChemFaces

Arjunolic acid Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Arjunolic acid

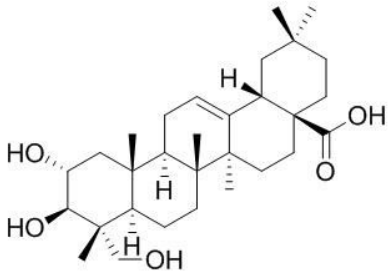
Catalog No.: CFN98690

Cas No.: 465-00-9

Purity: 98%

M.F: $C_{30}H_{48}O_5$

M.W: 488.7



Physical Description: Powder

Synonyms:(4aS,6aR,6aS,6bR,8aR,9R,10R,11R,12aR,14bS)-10,11-dihydroxy-9-(hydroxymethyl)-2,2,6a,6b,9,12a-hexamethyl-1,3,4,5,6,6a,7,8,8a,10,11,12,13,14b-tetradecahydropicene-4a-carboxylic acid;2,3,23-Trihydroxyolean-12-en-28-oic acid.

[Intended Use]

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

[Source]

The fruits of *Terminalia chebula Retz.*

[Biological Activity or Inhibitors]

Arjunolic acid has anti-inflammatory, antinociceptive and anticholinesterasic (AChE and BuChE) activities, it may as promising targets for the development of innovative multi-functional medicines for Alzheimer desease treatment.[1]

Arjunolic acid has significant cardiac protection in isoproterenol induced myocardial necrosis in rats.[2]

Arjunolic acid treatment can enhance the cellular antioxidant capability and protect hepatocytes against NaF-induced cytotoxicity and necrotic death, the cytoprotective activity of arjunolic acid is comparable to that of a known antioxidant, vitamin C; suggests that arjunolic acid plays a protective role against sodium fluoride (NaF)-induced cellular damage and prevents hepatocytes from necrotic death. [3]

Arjunolic acid has protective effects against Acetaminophen (APAP)-induced renal damage via inhibition of NO overproduction and maintenance of intracellular antioxidant status.[4]

Arjunolic acid can effectively ameliorate diabetic renal dysfunctions by reducing oxidative as well as nitrosative stress and deactivating the polyol pathways.[5]

Arjunulic acid produces antitumor activity against Ehrlich Ascites carcinoma (EAC) by increasing cytotoxicity and apoptosis and partially blocking the TGF-βR1 and affecting inflammatory cytokine levels.[6]

Arjunolic acid exhibits better protection against histamine release than against acetylcholine release, anti-asthmatic and anaphylactic activity of it may be possibly due to membrane stabilizing potential and inhibition of antigen induced histamine and acetylcholine release.[7]

[Solvent]

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

[HPLC Method][8]

Mobile phase: Methanol-H2O(pH is 4.7 adjust with acetic acid)= 60:40 ;

Flow rate: 1.0 ml/min;

Column temperature: 35 ℃;

The wave length of determination: 205 nm.

[Storage]

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

[References]

[1] Facundo, Rios V A, Medeiros K A*, et al. J. Brazil. Chem. Soc., 2005, 16(6B):1309-12.*

[2] Sumitra M, Manikandan P, Kumar D A, *et al. Mol.Cell.Biochem., 2001, 224(1):135-42.*

[3] Ghosh J, Das J, Manna P, *et al. Toxicol. in Vitro, 2008, 22(8):1918-26.*

[4] Ghosh J, Das J, Manna P, *et al. Toxicology, 2010, 268(1-2):8-18.*

[5] Manna P, Sinha M, Sil P C. *Chem. Biol. Interact., 2009, 181(3):297-308.*

[6] Elsherbiny N M, Al-Gayyar M M H. *Biomed. Pharmacother., 2016, 82:28-34.*

[7] Prasad M V V, Anbalagan N, Patra A, *et al. Nat. Prod. Sci., 2004, 10(5):240-3.*

[8] Devaraj R, Sadashiva M P, Mahesh M, *et al. Int. J. Res. Phytochem.Pharmacol., 2012, 2(4):188-93.*

[Contact]

Address:
S5-3 Building, No. 111, Dongfeng Rd.,
Wuhan Economic and Technological Development Zone,
Wuhan, Hubei 430056,
China

Email: info@chemfaces.com
Tel: +86-27-84237783
Fax: +86-27-84254680
Web: www.chemfaces.com
Tech Support: service@chemfaces.com