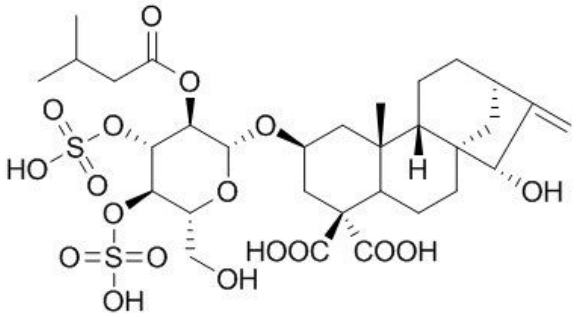
Natural Products

ChemFaces

Carboxyatractyloside Datasheet

4th Edition (Revised in July, 2016)

[Product Information]



Name: Carboxyatractyloside

Catalog No.: CFN90756

Cas No.: 77228-71-8

Purity: > 98%

M.F: $C_{31}H_{46}O_{18}S_2$

M.W: 770.8

Physical Description: Powder

Synonyms:

(2beta,15alpha)-15-Hydroxy-2-[[2-O-(3-methyl-1-oxobutyl)-3,4-di-O-sulfo-beta-D-glucopyranosyl]oxy]kaur-16-ene-18,19-dioic acid.

[Intended Use]

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

[Source]

The fruits of *Xanthium strumarium.*

[Biological Activity or Inhibitors]

Carboxyatractyloside is a compound from *xanthium strumarium and atractylis gummifera* , it has plant growth inhibiting properties.[1]

Carboxyatractyloside can inhibit rapid exchange of matrix and external adenine nucleotides via the adenine nucleotide translocase; carboxyatractyloside effects on brown-fat mitochondria imply that the adenine nucleotide translocator isoforms ANT1 and ANT2 may be responsible for basal and fatty-acid-induced uncoupling respectively.[2,3]

Carboxyatractyloside increases the effect of oleate on mitochondrial permeability transition.[4]

Carboxyatractyloside, an inhibitor of mitochondrial ADP/ATP translocation, has renal toxicity.[5]

[Solvent]

Pyridine, Methanol, Ethanol, DMSO, etc

[HPLC Method][6]

Mobile phase: Acetonitrile-0.01 M NaH_2PO_4 (pH 6), gradient eiution;

Flow rate: 1.0 ml/min;

Column temperature: 35 ℃;

The wave length of determination: 203 nm.

[Storage]

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

[References]

[1] Cutler H G, Cole R J. *J. Nat. Prod., 2004, 46(5):609-13.*

[2] Shabalina I G, Kramarova T V, Nedergaard J, *et al. Biochem. J., 2006, 399(3):405-14.*

[3] Austin J, Aprille J R. *J. Biol. Chem., 1984, 259(1):154-60.*

[4] Chávez E, Zazueta C. *Febs Lett., 1999, 445(1):189–91*.

[5] Krejci M E, Koechel D A. *Toxicology, 1992, 72(3):299-313.*

[6] Duo R, Chen Y, Liu Y, *et al. China Journal of Chinese Materia Medica, 2012, 37(15):2313-6.*

[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