Natural Products

ChemFaces

Tetrandrine Datasheet

5th Edition (Revised in January, 2017)

[Product Information]

Name: Tetrandrine

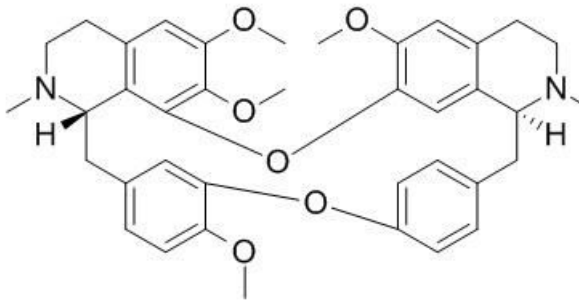
Catalog No.: CFN99166

Cas No.: 518-34-3

Purity: >=98%

M.F: $C_{38}H_{42}N_2O_6$

M.W: 622.76



Physical Description: Cryst.

Synonyms:(1β)-6,6',7,12-Tetramethoxy-2,2'-dimethylberbaman.

[Intended Use]

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

[Source]

The root of *Stephania tetrandra S. Moore*.

[Biological Activity or Inhibitors]

Tetrandrine protects hepatocytes by inhibiting calcium release-activated calcium current

(I(CRAC)), which is not related to I(K) and I(K1).[1]

Tetrandrine can inhibit inward rectifying potassium current in cultured bovine aortic endothelial cells.[2]

Tetrandrine exerts antifibrotic effects in both HSC-T6 cells and in rats with dimethylnitrosamine (DMN)-induced fibrosis. [3]

Tetrandrine is a potent multidrug resistance (MDR)-reversing agent in vitro and in vivo, its mechanism of action is via directly binding to P-gp and increasing intracellular vincristine accumulation.[4]

Tetrandrine is an antitumor alkaloid isolated from the root of Stephania tetrandra, it arrests cells in G(1) by convergent mechanisms, including down-regulation of E2F1 and up-regulation of p53/p21(Cip1).[5]

Tetrandrine inhibits activation of rat hepatic stellate cells stimulated by transforming growth factor-β in vitro via up-regulation of Smad 7.[6]

Tetrandrine shows anti-oxidant activity, anti-inflammatory and immunosuppressive activity.[7]

[Solvent]

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

[HPLC Method][8]

Mobile phase: Methanol-1.0 g/L Sodium1-octanesulfonate in water(pH 3.0,adjusted by glacial acetic acid)=65:35;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 280 nm.

[Storage]

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

[References]

[1] Zhou H Y, Wang F, Cheng L, *et al. World Journal of Gastroenterology, 2003, 9(1): 134-6.*

[2] Liu W B, Liu G Q, Xiao H, *et al. Acta Pharmacol. Sin.,2000 Dec;21(12):1115-8.*

[3] Hsu Y C, Chiu Y T, Cheng C C, *et al. J. Gastroenterol. Hepatol.,2007 Jan;22(1):99-111.*

[4] Fu L, Liang Y, Deng L, *et al.Cancer Chemother. Pharmacol.,2004 Apr;53(4):349-56.*

[5] Meng L H, Zhang H, Hayward L, *et al. Cancer Res., 2004, 64(64):9086-92.*

[6] Chen Y W, Li D G, Wu J X, *et al. J. Ethnopharmacol., 2005, 100(3):299-305.*

[7] Li S Y, Ling L H, Teh B S, *et al. Int. J. Immunopharmacol.,1989,11(4):395-401.*

[8] Lu X G, Zhang R X, Feng F, *et al. J. Chromatogr. Sci.,2015 Sep;53(8):1328-32.*

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