Natural Products

ChemFaces

L-Stepholidine Datasheet

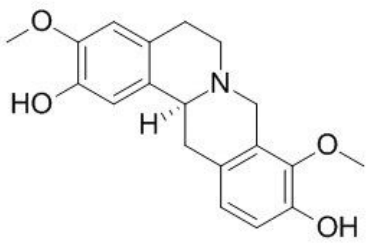
4th Edition (Revised in July, 2016)

[Product Information]

Name: L-Stepholidine

Catalog No.: CFN90457

Cas No.: 16562-13-3



Purity: >=98%

M.F: $C_{19}H_{21}NO_4$

M.W: 327.37

Physical Description: Powder

Synonyms:3,9-Dimethoxy-13a-alpha-berbine-10-diol;g)quinolizine-2,10-diol,5,8,13,13a-tetrahydro-3,9-dimethoxy-6h-dibenzo.

[Intended Use]

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

[Source]

The roots of *Stephania japonica.*

[Biological Activity or Inhibitors]

L-Stepholidine (L-SPD), a known dual dopamine receptor agent, elicits antidyskinesia effects via both dopamine (D(2) receptor antagonistic activity) and nondopamine (5-HT(1A) agonistic activity) mechanisms.[1]

L-Stepholidine can inhibit acquisition, maintenance, and re-acquisition of morphine conditioned place preference and suggest its potential for treatment of opioid addiction.[2]

L-Stepholidine can protect striatal neurons against ischemic injury and antagonize the inhibitory action on calcium/calmodulin-dependent protein kinase Ⅱ (CCDPK) activity induced by ischemia, it also can reduce the leakage of LDH from striatal neurons induced by ischemia. [3]

L-Stepholidine can antagonize arrhythmia trigged by BaCl2 in rats,and decrease ventricular fibrillation incidence and mortality trigged by CaCl2 in rats,further more,SPD shows protective effects on arrhythmia caused by cardiac glycosides in guinea pigs, thus, SPD has significant anti-arrhythmic effects.[4]

[Solvent]

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

[HPLC Method][5]

Mobile phase: Methanol-Acetonitrile-Triethylamine buffer solution(0.05mol/L,pH adjusted to 3.0 with H3PO4)=60: 20: 20 ;

Flow rate: 1.0 ml/min;

Column temperature: 30 ℃;

The wave length of determination: 284 nm.

[Storage]

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

[References]

[1] Mo J, Zhang H, Yu L P, *et al. Neurobiol. Aging, 2010, 31(6):926-36.*

[2] Wang W, Zhou Y, Sun J, *et al. Neuropharmacology, 2007, 52(2):355-61.*

[3] Tang F M, Ding Y M, Chen Y T, *et al. Acta Pharm. Sin., 1999, 20(12):1073-8.*

[4] Su Y H , Li H L. *Journal of Kunming Medical University, 2009, 30(10):23-5.*

[5] Li X Y. *China Pharmacy, 2003, 14(1):43-4.*

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