

Epiberberine Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Epiberberine

Catalog No.: CFN98564

Cas No.: 6873-09-2

Purity: >=98%

M.F: C₂₀H₁₈NO₄

M.W: 336.36

Physical Description: Powder

Synonyms:8,9-Dimethoxy-11,12-dihydro[1,3]dioxolo[4,5-h]isoquino[2,1-b]isoquinolin-13-i um; Benz(a)-1,3-benzodioxolo(4,5-g)quinolizinium, 11,12-dihydro-8,9-dimethoxy-.

[Intended Use]

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

[Source]

The tubers of Corydalis decumbens (Thunb.) Pers.

[Biological Activity or Inhibitors]

Epiberberine has anti-adipogenic activity, the anti-adipogenic effect of it is mediated by

downregulation of the Raf/MEK1/ERK1/2 and AMPKα/Akt pathways during 3T3-L1

adipocyte differentiation, is not accompanied by modulation of β-catenin.[1]

Epiberberine can reduce serum cholesterol in diet-induced dyslipidemia Syrian golden

hamsters via network pathways involving cholesterol metabolism, it should be considered

as one of the promising natural drugs for the treatment of dyslipidemia.^[2]

Epiberberine, berberine, palmatine, jateorrhizine, coptisine, and groenlandicine exhibit

predominant cholinesterases (ChEs) inhibitory effects with IC(50) values ranging between

0.44-1.07 microM for acetylcholinesterase (AChE) and 3.32-6.84 microM for

butyrylcholinesterase (BChE); thus, they have beneficial uses in the development of

therapeutic and preventive agents for Alzheimer's disease (AD). [3]

[Solvent]

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

[HPLC Method]^[4]

Mobile phase: Acetonitrile-30 mM Ammonium bicarbonate solution(including 0.7%

ammonia and 0.1% triethylamine), gradient elution;

Flow rate: 1.0 ml/min;

Column temperature: 30 ℃;

The wave length of determination: 270 nm.

[Storage]

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

[References]

[1] Choi J S, Kim J H, Ali M Y, et al. Arch. Pharm. Res., 2015, 38(12):2153-62.

[2] Zou Z Y, Hu Y R, Ma H, et al. Eur. J. Pharmacol., 2015, 774:1-9.

[3] Hyunah J, Min B S, Yokozawa T, et al. Biol. Pharm. Bull., 2009, 32(8):1433-8.

[4] Geng Z, Zheng H, Zhang Y, et al. China Journal of Chinese Materia Medica, 2010, 35(19):2576-80.

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