Natural Products

ChemFaces

Sophoridine Datasheet

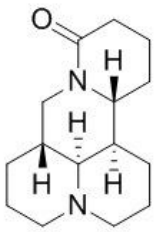
4th Edition (Revised in July, 2016)

[Product Information]

Name: Sophoridine

Catalog No.: CFN97172

Cas No.: 6882-68-4



Purity: >=98%

M.F: $C_{15}H_{24}N_2O$

M.W: 248.36

Physical Description: Powder

Synonyms: 5-Epidihydrosophocarpine;(5 β)-Matridin-15-one.

[Intended Use]

1. Reference standards;

2. Pharmacological research;

3. Synthetic precursor compounds;

4. Intermediates & Fine Chemicals;

5. Others.

[Source]

The roots of *Sophora flavescens Ait.*

[Biological Activity or Inhibitors]

Sophoridine(SRI) possesses antiviral activities against coxsackievirus B3 (CVB3), by

regulating cytokine expression, and it is likely that sophoridine itself, not its metabolites, is mainly responsible for the antiviral activities; therefore, sophoridine may represent a potential therapeutic agent for viral myocarditis.[1]

Sophoridine can significantly inhibit the growth of SW480 cells, and the administration of SRI significantly inhibited the growth of xenograft tumors without apparent toxicity, SRI's mechanism of action involved the induction of apoptosis; suggests that SRI produces obvious anti-tumor effects in vitro and in vivo. It supports the viability of developing SRI as a novel therapeutic prodrug for colorectal carcinoma (CRC) treatment, as well as providing a method for identifying new anti-tumor drugs in traditional Chinese medicine (TCM).[2]

Oxysophoridine produced the similar anti-arrhythmic effects as sophoridine did at the equivalent effective dose. [3]

Early and short-time applying sophoridine has neuroprotective effect min permanent middle cerebral artery occlusion (pMCAO) rat brain by down-regulating TRAF6 and up-regulating p-ERK1/2 expression, ameliorating brain infaction and edema.[4]

[Solvent]

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

[HPLC Method][5]

Mobile phase: 0.01 M KH_2PO_4 buffer-Methanol-Triethylamine= 94:6:0.01 ;

Flow rate: 1.0 ml/min;

Column temperature: 40 ℃;

The wave length of determination: 208 nm.

[Storage]

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

[References]

[1] Zhang Y, Zhu H, Ye G, *et al Life Sci., 2006, 78(17):1998-2005.*

[2] Liang L, Wang X Y, Zhang X H*, et al. Life Sci., 2012, 91(25-26):1295-303.*

[3] Zhang H M, Li H Q. *Acta pharmacologica Sinica, 1999, 20(6):517-20.*

[4] Liu Z, He D, Zhang X, *et al. Brain Res. Bull., 2012, 88(4):379-84.*

[5]Li K, Wang H. *Biomedical Chromatography Bmc, 2004, 18(3):178-82.*

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