

Dimethyl lithospermate B Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Dimethyl lithospermate B

Catalog No.: CFN90690

Cas No.: 875313-64-7

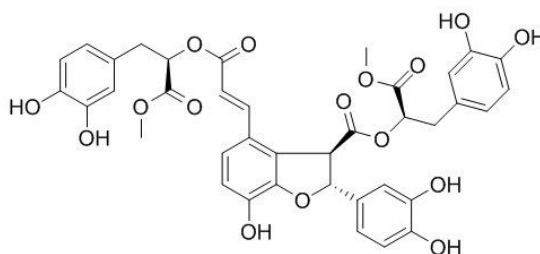
Purity: >=90%

M.F: C₃₈H₃₄O₁₆

M.W: 746.67

Physical Description: Powder

Synonyms: Lithospermic acid B dimethyl ester.



[Intended Use]

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

[Source]

The roots of *Salvia miltiorrhiza* Bge.

[Biological Activity or Inhibitors]

Dimethyl lithospermate B (dmLSB) is an extract of Danshen, which slows inactivation of

INa, leading to increased inward current during the early phases of the action potential (AP); dmLSB is effective in eliminating the arrhythmogenic substrate responsible for the Brugada syndrome and that it deserves further study as a pharmacological adjunct to implanted cardioverter/defibrillator usage.^[1]

Since the Action potential duration (APD) prolongation by dimethyl lithospermate B did not provoke early after-depolarization (EAD), which is thought as a possible mechanism for the proarrhythmia seen in other Na(+) channel agonists, dmLSB might be an excellent candidate for a Na(+) channel agonist.^[2]

Dimethyl lithospermate has anti-oxidant activity, it can significantly inhibit nitration of bovine serum albumin by peroxynitrite (ONOO(-)) in a dose-dependent manner, also can manifest cytoprotection from cell damage induced by ONOO(-); suggests that D dimethyl lithospermate is an effective ONOO(-) scavenger and promotes cellular defense activity in the protection against ONOO(-)-involved diseases. ^[3]

[Solvent]

Pyridine, Methanol, Ethanol, etc.

[HPLC Method]^[4]

Mobile phase: Methanol-Acetonitrile-Formic acid-H₂O=30:10:1:59 ;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 286 nm.

[Storage]

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

[References]

[1] Fish J M, Welchons D R, Kim Y S, *et al. Circulation*, 2006, 113(11):1393-400.

[2] Yoon J Y, Ahn S H, Oh H, *et al. Brit. J.Pharmacol.*, 2004, 143(6):765–73.

[3] Kim J Y, Kim H S, Kang H S, *et al. J. Med.Food*, 2008, 11(1):21-8.

[4] Yuan X A. *China Pharmaceuticals*, 2010, 19(3):21-2.

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