

Monomethyl lithospermate B Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Monomethyl lithospermate B

Catalog No.: CFN90390

Cas No.: 122021-74-3

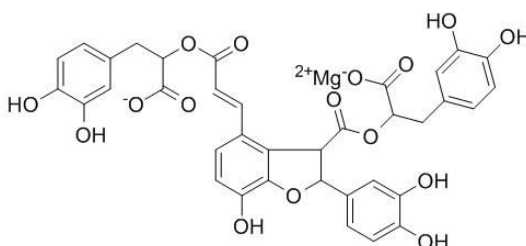
Purity: >=98%

M.F: C₃₆H₂₈MgO₁₆

M.W: 740.90

Physical Description: Powder

Synonyms: Magnesium lithospermate B.



[Intended Use]

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

[Source]

The roots of *Salvia miltiorrhiza* Bge.

[Biological Activity or Inhibitors]

Magnesium Lithospermate B as an active component of Danshen in protecting cardiomyocytes from ischemic injury through specific inhibition of TAB1-p38 apoptosis signaling, indicates that TAB1-p38 interaction as a putative drug target in treating ischemic heart diseases.^[1]

Magnesium lithospermate B is an inhibitor of lipid peroxidation and scavenge superoxide anions and hydroxyl radicals both in vitro and ex vivo.^[2]

Magnesium lithospermate B can ameliorate cisplatin-induced injury in cultured renal epithelial cells. ^[3]

Magnesium lithospermate B is a naturally occurring, new generation antioxidant that activates eNOS and ameliorates endothelial dysfunction in diabetes by enhancing vasodilation in addition to reducing oxidative stress.^[4]

Magnesium lithospermate B possesses inhibitory activity on Na⁺,K⁺-ATPase, it provides anti-ischemic neuroprotection in gerbilssubjected to focal ischemia and reperfusion.^[5]

Magnesium lithospermate B has protective effects against diabetic atherosclerosis via Nrf2-ARE-NQO1 transcriptional pathway.^[6]

Magnesium lithospermate B possesses remarkably cardioprotective effects on myocardial ischemia/reperfusion (MI/R) injury in vivo and in vitro, the protection of it may contribute to its antioxidant properties.^[7]

Magnesium lithospermate B has potent antifibrotic effect in intraperitoneal thioacetamide (TAA)-treated cirrhotic rats, and inhibits fibrogenic responses in hepatic stellate cells (HSCs), suggest thats it has potential as a novel therapy for hepatic fibrosis.^[8]

Magnesium lithospermate B has depressor action on blood pressure in spontaneously hypertensive rats.^[9]

Magnesium lithospermate B may stimulate the synthesis of kallikrein and/or conversion to active kallikrein, thus improving renal function.^[10]

Magnesium lithospermate B may exert therapeutic actions on depression-like behavior and the HPA axis hyperactivity in chronic unpredictable stress (CUS) rats, and the mechanisms underlying the antidepressant-like effects of magnesium lithospermate B may be mediated by regulation of the expression of NF-κB and IκB-α in rats.^[11]

Magnesium Lithospermate B has anti-wrinkle and anti-aging effects on skin.^[12]

[Solvent]

Pyridine, Methanol, Ethanol, etc.

[HPLC Method]^[13]

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]

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