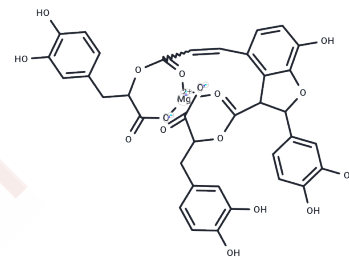


Magnesium Lithospermate B

Chemical Properties

| | |
|-------------------|--|
| CAS No. : | 122021-74-3 |
| Formula: | C ₃₆ H ₂₈ MgO ₁₆ |
| Molecular Weight: | 740.9 |
| Storage: | Store at low temperature Powder: -20°C for 3 years In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i> |



Biological Description

| | |
|-----------------|--|
| Description | Magnesium Lithospermate B is a natural product activates eNOS and ameliorates endothelial dysfunction in diabetes by enhancing vasodilation in addition to reducing oxidative stress, it can protecte cardiomyocytes from ischemic injury through specific inhibition of TAB1-p38 apoptosis signaling.improves renal failure. |
| Targets(IC50) | ATPase,Others |
| In vitro | magnesium lithospermate B (MLB) dose-dependently inhibited the activation of microglia and reduced neuronal apoptosis.?Western blot analysis showed that MLB decreased the expression of inflammatory cytokine TNF- and pro-apoptotic protein cleaved caspase-3.?More importantly, MLB increased the expression of SIRT1, while inhibited the acetylation of NF-B.?Furthermore, pretreatment with sirtinol (a selective inhibitor of SIRT1) reversed all the aforementioned effects of MLB after SAH[1]. |
| In vivo | magnesium lithospermate B (MLB), a bioactive ingredient extracted from Salvia miltiorrhiza, exerts neuroprotective effects in several central nervous system insults. administration of MLB significantly attenuated brain edema and neurological deficits after SAH[1]. |
| Animal Research | Adult male Sprague-Dawley rats were subjected to an endovascular perforation process to produce an SAH model.?MLB was administrated intraperitoneally at 30min after SAH with a dose of 25mg/kg or 50mg/kg[1]. |

Solubility Information

| | |
|---------------------|---|
| Solubility | DMSO: 100 mg/mL (134.97 mM),Sonication is recommended. H2O: 19.23 mg/mL (25.95 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble) |
| In vivo Formulation | 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 4 mg/mL (5.4 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i> |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|-------|-----------|-----------|------------|
| 1 mM | 1.3497 mL | 6.7485 mL | 13.4971 mL |
| 5 mM | 0.2699 mL | 1.3497 mL | 2.6994 mL |
| 10 mM | 0.135 mL | 0.6749 mL | 1.3497 mL |
| 50 mM | 0.027 mL | 0.135 mL | 0.2699 mL |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Yucong P , Pingyou H , Linfeng F , et al. Neuroprotective Effects of Magnesium Lithospermate B against Subarachnoid Hemorrhage in Rats[J]. The American Journal of Chinese Medicine, 2018, 46:1-17.

Zhang Z , Zichen W , Wei R , et al. Magnesium lithospermate B promotes proliferation and differentiation of neural stem cells in vitro and enhances neurogenesis in vivo[J]. Tissue & Cell, 2018, 53:8-14.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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