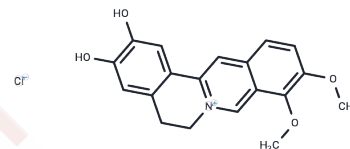


Demethyleneberberine chloride

Chemical Properties

| | |
|-------------------|--|
| CAS No. : | 16705-03-6 |
| Formula: | C ₁₉ H ₁₈ ClNO ₄ |
| Molecular Weight: | 359.80 |
| Storage: | Keep away from moisture Keep away from direct sunlight Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small> |



Biological Description

| | |
|---------------|---|
| Description | Demethyleneberberine chloride is a metabolite of berberine and belongs to the class of isoquinoline alkaloid derivatives. Demethyleneberberine chloride is a naturally occurring antioxidant with mitochondrial targeting properties that alleviates colitis in mice and suppresses inflammation by inhibiting the NF-κB pathway and modulating Th cell balance. Demethyleneberberine chloride exerts metabolic regulatory effects by activating lipid metabolism and related signaling pathways (AMPK) and can be used in research on non-alcoholic fatty liver disease (NAFLD). |
| Targets(IC50) | NF-κB,AMPK |

Solubility Information

| | |
|------------|---|
| Solubility | DMSO: 1.54 mg/mL (4.28 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble) |
|------------|---|

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|-------|-----------|------------|------------|
| 1 mM | 2.7793 mL | 13.8966 mL | 27.7932 mL |
| 5 mM | 0.5559 mL | 2.7793 mL | 5.5586 mL |
| 10 mM | 0.2779 mL | 1.3897 mL | 2.7793 mL |
| 50 mM | 0.0556 mL | 0.2779 mL | 0.5559 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

Zhang P, et al. Demethyleneberberine, a natural mitochondria-targeted antioxidant, inhibits mitochondrial dysfunction, oxidative stress, and steatosis in alcoholic liver disease mouse model. *J Pharmacol Exp Ther.* 2015 Jan; 352(1):139-47.

Chen YY, et al. Demethyleneberberine alleviates inflammatory bowel disease in mice through regulating NF- κ B signaling and T-helper cell homeostasis. *Inflamm Res.* 2017 Feb;66(2):187-196.

Qiang X, et al. Demethyleneberberine attenuates non-alcoholic fatty liver disease with activation of AMPK and inhibition of oxidative stress. *Biochem Biophys Res Commun.* 2016 Apr 15;472(4):603-9.

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