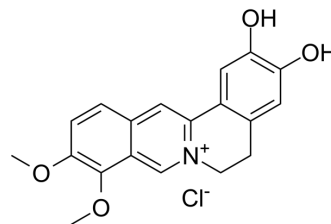


## Demethyleneberberine chloride

<b>Cat. No.:</b>	HY-N0592A
<b>CAS No.:</b>	16705-03-6
<b>Molecular Formula:</b>	C <sub>19</sub> H <sub>18</sub> ClNO <sub>4</sub>
<b>Molecular Weight:</b>	359.8
<b>Target:</b>	NF-κB; AMPK
<b>Pathway:</b>	NF-κB; Epigenetics; PI3K/Akt/mTOR
<b>Storage:</b>	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 2 mg/mL (5.56 mM; Need ultrasonic)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
1 mM		2.7793 mL	13.8966 mL	27.7932 mL
5 mM		0.5559 mL	2.7793 mL	5.5586 mL
10 mM		---	---	---

Please refer to the solubility information to select the appropriate solvent.

### BIOLOGICAL ACTIVITY

#### Description

Demethyleneberberine chloride is a natural mitochondria-targeted antioxidant. Demethyleneberberine chloride alleviates mice colitis and inhibits the inflammatory responses by inhibiting NF-κB pathway and regulating the balance of Th cells. Demethyleneberberine chloride could serve as a AMPK activator for researching non-alcoholic fatty liver disease (NAFLD)<sup>[1]</sup> [2][3].

### REFERENCES

- [1]. 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.
- [2]. Chen YY, et al. Demethyleneberberine alleviates inflammatory bowel disease in mice through regulating NF-κB signaling and T-helper cell homeostasis. *Inflamm Res.* 2017 Feb;66(2):187-196.
- [3]. 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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**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA