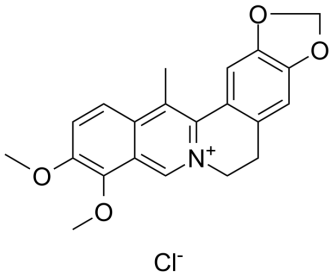
13-Methylberberine chloride

Cat. No.:	HY-125827
CAS No.:	54260-72-9
Molecular Formula:	$C_{21}H_{20}ClNO_4$
Molecular Weight:	385.84
Target:	Interleukin Related
Pathway:	Immunology/Inflammation
Storage:	-20°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 : 20 mg/mL (51.83 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.5917 mL	12.9587 mL	25.9175 mL
5 mM	0.5183 mL	2.5917 mL	5.1835 mL
10 mM	0.2592 mL	1.2959 mL	2.5917 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2 mg/mL (5.18 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 2 mg/mL (5.18 mM); Suspended solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

13-Methylberberine chloride (13-Methylberberinium chloride), a berberine analogue, has anti-adipogenic and antitumor activities. 13-Methylberberine chloride (13-Methylberberinium chloride) increases production of IL-12 and inhibits the expression of iNOS at posttranscriptional level in macrophages activated with LPS[1][2][3].

REFERENCES

[1]. Chow YL, et al. 13-Methylberberine, a berberine analogue with stronger anti-adipogenic effects on mouse 3T3-L1 cells. Sci Rep. 2016 Dec 5;6:38129.

[2]. Iwasa K, et al. In vitro cytotoxicity of the protoberberine-type alkaloids. J Nat Prod. 2001 Jul;64(7):896-8.

[3]. Lee DU, et al. Effects of 13-alkyl-substituted berberine alkaloids on the expression of COX-II, TNF-alpha, iNOS, and IL-12 production in LPS-stimulated macrophages. Life Sci. 2003 Aug 1;73(11):1401-12.

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