Pidotimod

Cat. No.: HY-B0944

CAS No.: 121808-62-6

Molecular Formula: $C_9H_{12}N_2O_4S$

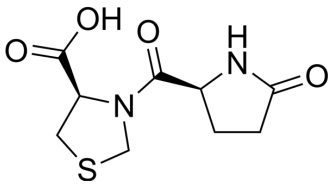
Molecular Weight: 244.27

Target: Bacterial

Pathway: Anti-infection

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	2 years
	-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (409.38 mM; Need ultrasonic)

H_2O : 25 mg/mL (102.35 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	4.0938 mL	20.4692 mL	40.9383 mL
5 mM	0.8188 mL	4.0938 mL	8.1877 mL
10 mM	0.4094 mL	2.0469 mL	4.0938 mL

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

In Vivo

1. Add each solvent one by one: PBS
   Solubility: 14.29 mg/mL (58.50 mM); Clear solution; Need ultrasonic and warming and heat to 60°C
2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (10.23 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (10.23 mM); Clear solution
4. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (10.23 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Pidotimod is an orally active dipeptide immunostimulant with immunomodulatory properties on the adaptive and the innate immune responses. Pidotimod increases macrophage activity and humoral immune functions. Pidotimod can be used for the research of chronic bronchitis, chronic obstructive pulmonary disease (COPD), bronchiectasis, and chronic idiopathic urticaria,et al[1][2].

In Vivo	In toxicology study in animals, Pidotimod (oral gavage; 800 mg/kg;12 months) is non-toxic in rats and is non-toxic dogs at 600 mg/kg. Pidotimod is non-teratogenic in rats (600 mg/kg orally or 1000 mg/kg IV) and has no effects on subsequent embryofoetal development in rats (up to 1000 mg/kg/day),it has no perinatal or postnatal toxic effects in rats (600 mg/kg orally)[1]. In ex vivo experiments in mice, Pidotimod (intraperitoneal administration; 200 mg/kg; 5 days) potentiats natural killer (NK) cell activity and produces an increase in the proliferative response to mitogens such as concanavalin A (ConA) and interleukin-2 (IL-2)[2]. Pidotimod (intraperitoneal administration; 10-100 mg/kg) normalizes depletion of peritoneal macrophage numbers, and significantly increases macrophage superoxide anion (O2–) production in methylprednisolone-induced immunosuppressed mice[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Ashok Mahashur, et al. Pidotimod: In-depth review of current evidence. Lung India

[2]. Ning Zhao, et al. Pidotimod: a review of its pharmacological features and clinical effectiveness in respiratory tract infections. Expert Rev Anti Infect Ther. 2019 Oct;17(10):803-818.

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