Product Data Sheet

Gemcabene

Cat. No.: HY-109567 CAS No.: 183293-82-5 Molecular Formula: $C_{16}H_{30}O_{5}$ Molecular Weight: 302.41 Target: Others

Pathway: Others

Storage: Powder -20°C 3 years

2 years

In solvent -80°C 6 months

-20°C 1 month

SOLVENT & SOLUBILITY

In Vitro

DMSO: 100 mg/mL (330.68 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	3.3068 mL	16.5338 mL	33.0677 mL
	5 mM	0.6614 mL	3.3068 mL	6.6135 mL
	10 mM	0.3307 mL	1.6534 mL	3.3068 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: ≥ 2.5 mg/mL (8.27 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (8.27 mM); Clear solution
- 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (8.27 mM); Clear solution

BIOLOGICAL ACTIVITY

Description Gemcabene (PD-72953), a first-in-class lipid-lowering agent, lowers low-density lipoprotein cholesterol (LDL-C), decreases triglycerides, and raises high-density lipoprotein cholesterol (HDL-C) and lowers pro-inflammatory acute-phase protein, Creactive protein (CRP), exerting anti-inflammatory activity^{[1][2][3]}.

In Vitro Gemcabene calcium (PD-72953 calcium) significantly downregulates hepatic mRNA markers of inflammation (TNF-α, MCP-1, MIP-1β, CCR5, CCR2, NF-κB), lipogenesis and lipid modulation (ApoC-III, ACC1, ADH-4, Sulf-2), and fibrosis (TIMP-1 and MMP-

 $2)^{[3]}$.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Mandema JW, et al. Model-based development of gemcabene, a new lipid-altering agent. AAPS J. 2005 Oct 7;7(3):E513-22.
- [2]. Srivastava RAK, et al. Gemcabene, a First-in-Class Hypolipidemic Small Molecule in Clinical Development, Attenuates Osteoarthritis and Pain in Animal Models of Arthritis and Pain. Front Pharmacol. 2018 May 11;9:471.
- [3]. Oniciu DC, et al. Gemcabene downregulates inflammatory, lipid-altering and cell-signaling genes in the STAM™ model of NASH. PLoS One. 2018 May 30;13(5):e0194568.

Caution: Product has not been fully validated for medical applications. For research use only.

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