

# Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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Proteins

# **Product** Data Sheet

# Saroglitazar magnesium

Cat. No.: HY-19937A CAS No.: 1639792-20-3 Molecular Formula:  $\mathsf{C}_{50}\mathsf{H}_{56}\mathsf{MgN}_2\mathsf{O}_8\mathsf{S}_2$ 

Molecular Weight: 901.42 **PPAR** Target:

Pathway: Cell Cycle/DNA Damage; Metabolic Enzyme/Protease; Vitamin D Related/Nuclear

Receptor

Storage: 4°C, sealed storage, away from moisture

\* In solvent: -80°C, 2 years; -20°C, 1 year (sealed storage, away from moisture)

#### **SOLVENT & SOLUBILITY**

In Vitro

DMSO: 125 mg/mL (138.67 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	1.1094 mL	5.5468 mL	11.0936 mL
	5 mM	0.2219 mL	1.1094 mL	2.2187 mL
	10 mM	0.1109 mL	0.5547 mL	1.1094 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: ≥ 2.75 mg/mL (3.05 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: 2.75 mg/mL (3.05 mM); Suspended solution; Need ultrasonic
- 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.75 mg/mL (3.05 mM); Clear solution

### **BIOLOGICAL ACTIVITY**

Description	Saroglitazar magnesium is a novel peroxisome proliferator-activated receptor (PPAR) agonist with predominant PPAR $\alpha$ and moderate PPAR $\gamma$ activity with EC <sub>50</sub> values of 0.65 pM and 3 nM in HepG2 cells, respectively.		
IC <sub>50</sub> & Target	PPARα 0.65 pM (EC50, HepG2 cell)	PPARγ 3 nM (EC50, HepG2 cell)	
In Vivo	In db/db mice, 12-day treatment with Saroglitazar (0.01-3 mg/kg per day, orally) causes dose-dependent reductions in serum triglycerides (TG), free fatty acids (FFA), and glucose. The $ED_{50}$ for these effects is found to be 0.05, 0.19, and 0.19		

mg/kg, respectively with AUC-glucose following oral glucose administration (59%) at 1 mg/kg dose. A 90-day repeated dose comparative study in Wistar rats and marmosets confirms efficacy (TG lowering) potential of Saroglitazar and has indicated low risk of PPAR-associated side effects in humans. Based on efficacy and safety profile, Saroglitazar appears to have good potential as novel therapeutic agent for treatment of dyslipidemia and diabetes<sup>[1]</sup>.

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

#### **PROTOCOL**

Animal
Administration [1]

Rats: Rats randomize based on body weights and are divided into three equal groups and receives the daily administration of vehicle (50% w/v honey for marmoset and 0.1% carboxymethylcellulose for Wistar rats) or Saroglitazar (1.5 and 15 mg/kg per day) for 90 days by oral gavage<sup>[1]</sup>.

Mice: Male C57BL/6J-db/db mice are bled on day 0 to determine pretreatment serum glucose and TG. During next 12 days, each animal is dosed (by oral gavage) with vehicle (0.5% sodium carboxymethyl cellulose) or Saroglitazar (0.01, 0.03, 0.1, 0.3,1, and 3 mg/kg per day) or U 72107 (60 mg/kg per day) and on day 12 of the treatment, blood samples are collected (1 h after dosing) from orbital sinus under light ether anesthesia. The serum is isolated and analyzed for glucose, TG, and free fatty acid (FFA)<sup>[1]</sup>.

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

#### **CUSTOMER VALIDATION**

- Cell Biol Toxicol. 2020 Jul 1.
- BMC Complement Med Ther. 2021 Apr 10;21(1):118.
- Patent. US20210275504A1.
- Patent. US20190388398A1.

See more customer validations on www.MedChemExpress.com

#### **REFERENCES**

[1]. Jain MR, et al. Saroglitazar, a novel PPARa/ $\gamma$  agonist with predominant PPARa activity, shows lipid-lowering effects in preclinical models. Pharmacol Res Perspect. 2015 Jun;3(3):e00136.

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

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