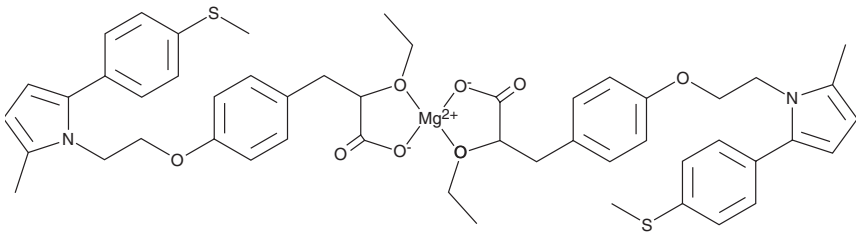
PRODUCT INFORMATION

Saroglitazar Magnesium

Item No. 41694

CAS Registry No.: 1639792-20-3
Formal Name: (T-4)-*bis*[(αS)-α-(ethoxy-κO)-4-[2-[2-methyl-5-[4-(methylthio)phenyl]-1H-pyrrol-1-yl]ethoxy]benzenepropanoato-κO]-magnesium
MF: $C_{50}H_{56}MgN_2O_8S_2$
FW: 901.4
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Saroglitazar magnesium is supplied as a solid. A stock solution may be made by dissolving the saroglitazar magnesium in the solvent of choice, which should be purged with an inert gas. Saroglitazar magnesium is sparingly soluble (1-10 mg/ml) in DMSO.

Description

Saroglitazar magnesium is a dual agonist of PPARα and PPARγ (EC_{50}s = 0.65 and 3,000 pM, respectively, in a transactivation assay in HepG2 cells).[1] It decreases serum triglyceride, free fatty acid, and glucose levels in a *db/db* mouse model of diabetes when administered at doses ranging from 0.01 to 3 mg/kg per day for 12 days. It increases insulin sensitivity in an oral glucose challenge when administered at a dose of 1 mg/kg in *db/db* mice, as well as decreases LDL levels in hApoB100/hCETP mice and in hamsters fed a high-fat high-cholesterol diet. Saroglitazar magnesium (10 µM) reverses palmitic acid-induced decreases in the expression of mRNA encoding superoxide dismutase 1 (SOD1), SOD2, glutathione peroxidase (GPX), and catalase and increases in the expression of mRNA encoding TNF-α, IL-1β, and IL-6 in HepG2 cells.[2] It decreases hepatic inflammation and steatosis in a mouse model of non-alcoholic steatohepatitis (NASH) induced by a choline-deficient high-fat diet when administered at a dose of 3 mg/kg and inhibits hepatic fibrosis in a mouse model of fibrosis induced by carbon tetrachloride.

References

1. Jain, M.R., Giri, S.R., Trivedi, C., *et al*. Saroglitazar, a novel PPARα/γ agonist with predominant PPARα activity, shows lipid-lowering and insulin-sensitizing effects in preclinical models. *Pharmacol. Res. Perspect*. **3(3)**, e00136 (2015).
2. Jain, M.R., Giri, S.R., Bhoi, B., *et al*. Dual PPARα/γ agonist saroglitazar improves liver histopathology and biochemistry in experimental NASH models. *Liver Int*. **38(6)**, 1084-1094 (2018).

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