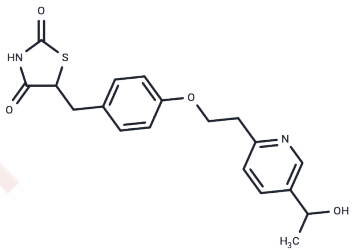
Data Sheet (Cat.No.T15736)

TargetMol

Leriglitazone

Chemical Properties



CAS No. : 146062-44-4

Formula: C19H20N2O4S

Molecular Weight: 372.44

Storage: Keep away from moisture,Store at low temperature
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Leriglitazone is a brain barrier-permeable, orally active PPARγ agonist (EC50=9 μM) and mitochondrial function modulator with neuroprotective, anti-inflammatory, and antioxidant properties for neurodegenerative disease research.
Targets(IC50)	PPAR
In vitro	Leriglitazone (100 nM; 45 days) enhanced astrocyte viability and respiratory activity in PKAN, while reducing iron accumulation [1]. Leriglitazone (50-500 nM; 5 days) increased frataxin levels, promoted cell survival, and improved neuronal degeneration and mitochondrial function in frataxin-knockdown DRG neurons[2]. Leriglitazone (0.5-2 μM; 7 days) prevented lipid droplet accumulation in frataxin-knockdown cardiomyocytes[2]. Leriglitazone (100–500 nM; 48 h) modulated PPARγ signaling pathway-related gene expression in Rett fibroblasts, enhancing mitochondrial function and reducing oxidative damage[3].
In vivo	Leriglitazone (50 mg/kg; feed administration; 8 months) improved motor deficits in Friedreich's ataxia mouse models [2]. Leriglitazone (75 mg/kg; feed administration; 7 months) demonstrated ameliorative effects in Rett syndrome mouse models [3].

Solubility Information

Solubility	DMSO: 160 mg/mL (429.6 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.685 mL	13.425 mL	26.850 mL
5 mM	0.537 mL	2.685 mL	5.370 mL
10 mM	0.2685 mL	1.3425 mL	2.685 mL
50 mM	0.0537 mL	0.2685 mL	0.537 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Santambrogio P, et al PPAR Gamma Agonist Leriglitazone Recovers Alterations Due to Pank2-Deficiency in hiPS-Derived Astrocytes. Pharmaceutics. 2023 Jan 6;15(1):202.
Rodríguez-Pascau L, et al. PPAR gamma agonist leriglitazone improves frataxin-loss impairments in cellular and animal models of Friedreich Ataxia. Neurobiol Dis. 2021 Jan;148:105162.
Musokhranova U, et al. Mitochondrial modulation with leriglitazone as a potential treatment for Rett syndrome. J Transl Med. 2023 Oct 26;21(1):756.
Pizcueta P, et al. Development of PPARγ Agonists for the Treatment of Neuroinflammatory and Neurodegenerative Diseases: Leriglitazone as a Promising Candidate. Int J Mol Sci. 2023 Feb 6;24(4):3201.