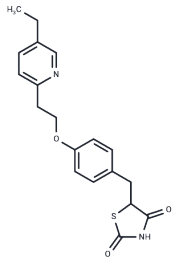
Data Sheet (Cat.No.T0214)

TargetMol

Pioglitazone

Chemical Properties



CAS No. : 111025-46-8

Formula: C19H20N2O3S

Molecular Weight: 356.44

Storage: Store under nitrogen
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	Pioglitazone (U 72107) is a PPARγ agonist with EC50 of 0.93 and 0.99 μM on human and mouse PPARγ, respectively, and has selective and oral activity. Pioglitazone can be used in diabetes research.
Targets(IC50)	Ferroptosis,PPAR
In vitro	**METHODS**: HT-1080, MDA-MB-231, and PC-3 cells were treated with Pioglitazone for 3 days, and target cell toxicity was measured using MTT assay. **RESULTS**: Pioglitazone did not affect cell growth at 100 μM. [1]
In vivo	**METHODS**: To investigate the effect of Pioglitazone on insulin resistance, Pioglitazone (10 and 30 mg/kg) was orally administered to ob/ob and adipo-/-ob/ob mice once daily for 14 days. **RESULTS**: Pioglitazone improves insulin resistance and diabetes, which may be lipocalin-dependent in the liver but not in skeletal muscle. [2] **METHODS**: To investigate the effect of Pioglitazone on cardiac remodeling, diabetic nephropathy rats were treated with oral administration of Pioglitazone (10 mg/kg) once daily for 4 weeks. **RESULTS**: Pioglitazone significantly reduced body weight (BW), cardiac hypertrophy, elevated blood glucose levels, and related dyslipidemia. [3]

Solubility Information

Solubility	DMSO: 28.8 mg/mL (80.8 mM),Heating is recommended. Ethanol: < 1 mg/mL (insoluble or slightly soluble), H2O: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 2 mg/mL (5.61 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.8055 mL	14.0276 mL	28.0552 mL
5 mM	0.5611 mL	2.8055 mL	5.611 mL
10 mM	0.2806 mL	1.4028 mL	2.8055 mL
50 mM	0.0561 mL	0.2806 mL	0.5611 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

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