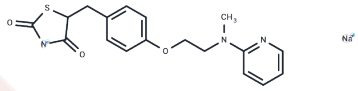
Data Sheet (Cat.No.T200945)

TargetMol

Rosiglitazone sodium

Chemical Properties



CAS No. : 316371-83-2

Formula: C18H18N3NaO3S

Molecular Weight: 379.41

Storage: 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	Rosiglitazone sodium is an effective and selective PPARγ activator, with EC50 values of 30 nM for PPARγ1, 100 nM for PPARγ2, and 60 nM for PPARγ. It also has an approximate Kd of 40 nM for PPARγ. Additionally, Rosiglitazone sodium acts as a regulator of TRP channels, inhibiting the activities of TRPM2 and TRPM3, while activating TRPC5.
Targets(IC50)	Autophagy,PPAR,TRP/TRPV Channel
In vitro	Rosiglitazone sodium serves as a potent and selective activator of PPARγ, demonstrating EC50 values of 30 nM and 100 nM for PPARγ1 and PPARγ2 respectively, along with a Kd of approximately 40 nM. Rosiglitazone (BRL49653; 0.1, 1,10 μM) induces the differentiation of C3H10T1/2 stem cells into adipocytes and shows activity in Neuro2A cells and hippocampal neurons by protecting against oxidative stress, up-regulating BCL-2 expression dependent on NF-α1. Further, it completely inhibits TRPM3 channels with IC50 values of 9.5 μM and 4.6 μM for nifedipine- and PregS-evoked activities respectively, without involvement of PPARγ activity. At higher concentrations, Rosiglitazone inhibits TRPM2 with an IC50 of approximately 22.5 μM and robustly stimulates TRPC5 channels with an EC50 of about 30 μM.
In vivo	Administered at a dosage of 5 mg/kg orally, rosiglitazone effectively lowers serum glucose levels in diabetic rats. Additionally, it reduces the levels of IL-6, TNF-α, and VCAM-1 in the same group. When used in conjunction with losartan, rosiglitazone raises glucose levels compared to those in diabetic and losartan-treated groups alone. Moreover, rosiglitazone markedly improves endothelial dysfunction, as evidenced by a significantly reduced contractile response to PE and Ang II, along with enhanced ACh-induced relaxation in aortas from diabetic rats.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6357 mL	13.1784 mL	26.3567 mL
5 mM	0.5271 mL	2.6357 mL	5.2713 mL
10 mM	0.2636 mL	1.3178 mL	2.6357 mL
50 mM	0.0527 mL	0.2636 mL	0.5271 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.

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