

SP4e

Chemical Properties

CAS No. :

Formula: C₂₂H₁₇ClN₂O₂S₂

Molecular Weight: 440.97

Store at low temperature

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	SP4e is a PPAR- γ activator with EC ₅₀ =826.7 nM in HK-2 cells. In a Swiss albino mouse model, SP4e is effective in decreasing blood glucose, total cholesterol, triglycerides and LDL levels and increasing HDL levels.
Targets(IC50)	PPAR
In vitro	In HEK-2 cells, SP4e activated PPAR- γ with an EC ₅₀ of 826.7[1].
In vivo	In STZ-induced diabetic mice, SP4e was administered orally at a dose of 10 mg/kg once daily for 15 days. SP4e significantly reduced blood glucose levels, with efficacy comparable to the reference drug pioglitazone (36 mg/kg). SP4e also improved lipid profiles by lowering total cholesterol, triglycerides, and LDL levels while increasing HDL levels[1]. In STZ-induced diabetic zebrafish, SP4e was administered at 10 mg/kg for 10 days. SP4e significantly reduced blood glucose and lipid peroxidation levels, while enhancing antioxidant parameters such as glutathione (GSH) content and catalase (CAT) activity[1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2677 mL	11.3386 mL	22.6773 mL
5 mM	0.4535 mL	2.2677 mL	4.5355 mL
10 mM	0.2268 mL	1.1339 mL	2.2677 mL
50 mM	0.0454 mL	0.2268 mL	0.4535 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

Gupta S, Baweja GS, Singh S, Irani M, Singh R, Asati V. Integrated fragment-based drug design and virtual screening techniques for exploring the antidiabetic potential of thiazolidine-2,4-diones: Design, synthesis and in vivo studies. Eur J Med Chem. 2023 Dec 5;261:115826.

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