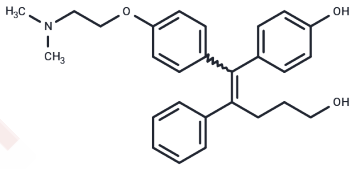
Data Sheet (Cat.No.T7709)

TargetMol

(E/Z)-GSK5182

Chemical Properties



CAS No. : 2699724-40-6

Formula: C27H31NO3

Molecular Weight: 417.54

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	(E/Z)-GSK5182 (GSK5182(Z/E)) is a racemic mixture comprising (E)-GSK5182 and (Z)-GSK5182 isomers. It acts as a highly selective and orally active inverse agonist for the estrogen-related receptor γ (ERRγ), demonstrating potency with an IC50 of 79 nM. Additionally, GSK5182 is known to induce the generation of reactive oxygen species (ROS) in hepatocellular carcinoma.
Targets(IC50)	Estrogen Receptor/ERR,Estrogen/progestogen Receptor,Reactive Oxygen Species,ROS

Solubility Information

Solubility	DMSO: 95 mg/mL (227.52 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 3.3 mg/mL (7.9 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	2.395 mL	11.9749 mL	23.9498 mL
5 mM	0.479 mL	2.395 mL	4.790 mL
10 mM	0.2395 mL	1.1975 mL	2.395 mL
50 mM	0.0479 mL	0.2395 mL	0.479 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

Misra J, et al. ERRγ: a Junior Orphan with a Senior Role in Metabolism. Trends Endocrinol Metab. 2017 Apr;28(4): 261-272.
Kim DK, et al. Inverse agonist of nuclear receptor ERRγ mediates antidiabetic effect through inhibition of hepatic gluconeogenesis. Diabetes. 2013 Sep;62(9):3093-102.
Kim JH, et al. Estrogen-related receptor γ is upregulated in liver cancer and its inhibition suppresses livercancer cell proliferation via induction of p21 and p27. Exp Mol Med. 2016 Mar 4;48:e213.