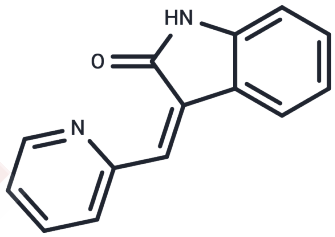
Data Sheet (Cat.No.T11467)

TargetMol

GSK-3β inhibitor 1

Chemical Properties



CAS No. : 187325-53-7

Formula: C14H10N2O

Molecular Weight: 222.24

Storage: 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	GSK-3β inhibitor 1 is an inhibitor of GSK-3β(IC50 of 4.9 nM) and demonstrates high antidiabetic efficacy.
Targets(IC50)	GSK-3
In vivo	GSK-3β inhibitor 1(compound 3a) inhibits GSK-3β with IC50 4.19 nM. In a cell-based assay 3a shows no significant leucocyte toxicity at 10 M and is moderately cytotoxic against A549 cells. Compound 3a demonstrated high antidiabetic efficacy in obese streptozotocin-treated rats improving glucose tolerance at a dose of 50 mg/kg body weight thus representing an interesting lead for further optimization.

Solubility Information

Solubility	DMSO: 30 mg/mL (134.99 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: 2 mg/mL (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	4.4996 mL	22.4982 mL	44.9964 mL
5 mM	0.8999 mL	4.4996 mL	8.9993 mL
10 mM	0.450 mL	2.2498 mL	4.4996 mL
50 mM	0.090 mL	0.450 mL	0.8999 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

Lozinskaya NA, et al. Synthesis and biological evaluation of 3-substituted 2-oxindole derivatives as new glycogen synthase kinase 3β inhibitors. Bioorg Med Chem. 2019 May 1;27(9):1804-1817.