

TCS 2002

Chemical Properties

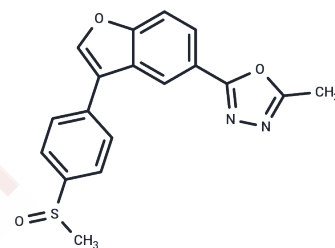
CAS No. : 1005201-24-0

Formula: C₁₈H₁₄N₂O₃S

Molecular Weight: 338.38

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	GSK-3 β inhibitor 9 (Compound 9b) is a highly selective, orally bioavailable and potent GSK-3 β inhibitor with the IC ₅₀ of 35 nM. GSK-3 β inhibitor 9 exhibits good pharmacokinetic profiles including favorable BBB penetration. GSK-3 β inhibitor 9 is able to be used for the research of Alzheimer's disease [1].
Targets(IC ₅₀)	Others,GSK-3
In vivo	GSK-3 β inhibitor 9 (Compound 9b) exhibited potent pharmacokinetic properties when administered to GS rats and C57BL/6N mice at doses ranging from 1-3 mg/kg over periods of 1-24 hours. It demonstrated favorable blood-brain barrier (BBB) permeability, indicated by an AUC (area under the curve) 0-24h value of 734 ng·h/g and a brain-to-plasma ratio (K _p value) of 1.6. In experiments utilizing 8-week-old male IGS rats, Compound 9b was administered intravenously and orally at dosages of 1 and 3 mg/kg across various time points (1, 2, 4, 8, 24 hours). This treatment resulted in a volume of distribution (V _{dss,iv}) ranging from 1134 to 1650 mL/kg, total clearance (CL _{total,iv}) between 27.4 and 28.4 mL/min/kg, and a maximum concentration (C _{max,po}) from 289.6 to 396.9 ng/mL. Additionally, oral administration led to AUC 0-24 h values between 1229.1 and 1380.6 ng·h/mL, mean residence time (MRT _{po}) from 2.19 to 3.03 hours, and fraction dosed (F _d %) from 65.5 to 72.8%.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.9553 mL	14.7763 mL	29.5526 mL
5 mM	0.5911 mL	2.9553 mL	5.9105 mL
10 mM	0.2955 mL	1.4776 mL	2.9553 mL
50 mM	0.0591 mL	0.2955 mL	0.5911 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

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