

GSK-3 β inhibitor 6

Chemical Properties

CAS No. :

Formula: C₂₀H₁₇BrN₄

Molecular Weight: 393.28

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 6 is a highly potent inhibitor of GSK-3 β with an IC ₅₀ value of 24.4 μ M, significantly enhancing hepatocyte glucose uptake (38%). This compound holds great potential for studying diseases such as diabetes, inflammation, cancer, Alzheimer's disease, and bipolar disorder [1].
Targets(IC ₅₀)	Others,GSK-3
In vitro	GSK-3 β inhibitor 6 (Compound B30, 0-30 μ M, 30 min) effectively inhibits GSK-3 β kinase (IC ₅₀ : 24.4 μ M) and significantly enhances hepatocyte glucose uptake by 38% (5 μ M, 3 h) without notable toxicity to HepG2 cells [1].
In vivo	GSK-3 β inhibitor 6 (Compound 5k), administered orally at 20 mg/kg, exhibits favorable pharmacokinetics with a half-life (t _{1/2}) of 1.41 hours and a peak concentration (C _{max}) of 288 ng/mL in Sprague-Dawley rats. Pharmacokinetic assessment comparing intravenous injection at 2 mg/kg and oral delivery at 20 mg/kg shows that oral administration results in a t _{1/2} of 1.41 hours, time to peak concentration (T _{max}) of 1.33 hours, and oral bioavailability (F) of 11.4%. In contrast, intravenous injection demonstrates a longer t _{1/2} of 2.13 hours and a quicker T _{max} of 0.08 hours, highlighting the effect of administration routes on the pharmacokinetic profile.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.5427 mL	12.7136 mL	25.4272 mL
5 mM	0.5085 mL	2.5427 mL	5.0854 mL
10 mM	0.2543 mL	1.2714 mL	2.5427 mL
50 mM	0.0509 mL	0.2543 mL	0.5085 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

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