

ZINC12409120

Chemical Properties

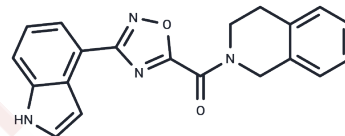
CAS No. : 1010888-06-8

Formula: C₂₀H₁₆N₄O₂

Molecular Weight: 344.37

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	ZINC12409120 (R-4584) is a selective ERK inhibitor. ZINC12409120 inhibits ERK with an IC ₅₀ of 5.0 μM. ZINC12409120 inhibits ERK activity by interfering with FGF23:α-Klotho interaction.
Targets(IC ₅₀)	ERK
In vitro	ZINC12409120 (1 nM-0.1 mM; 5 h) inhibits ERK reporter activities mediated by FGF23 (1 μM), with an IC ₅₀ of 5 μM.[1] ZINC12409120 (10 μM; 5 h) specifically inhibits ERK activity mediated by FGF23:α-Klotho instead of EGF-mediated ERK activation and exhibits no inhibitory effect on EGFR tyrosine kinase or EGF/EGFR interaction.[1]

Solubility Information

Solubility	DMSO: 50 mg/mL (145.19 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.9039 mL	14.5193 mL	29.0385 mL
5 mM	0.5808 mL	2.9039 mL	5.8077 mL
10 mM	0.2904 mL	1.4519 mL	2.9039 mL
50 mM	0.0581 mL	0.2904 mL	0.5808 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

Liu SH, et al. Identification of Small-Molecule Inhibitors of Fibroblast Growth Factor 23 Signaling via In Silico Hot Spot Prediction and Molecular Docking to α -Klotho. J Chem Inf Model. 2022;62(15):3627-3637.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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