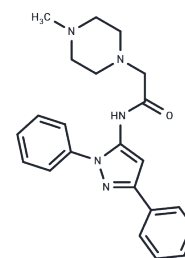


EGFR/COX₂-IN₃

Chemical Properties

CAS No. : 3121638-16-9
 Formula: C₂₂H₂₅N₅O
 Molecular Weight: 375.47
 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	EGFR/COX-2-IN-3 is a highly selective dual-target inhibitor of EGFR and COX-2, with IC ₅₀ values of 0.098 μM and 0.05 μM for the two targets respectively. Pharmacological prediction Results: show that it possesses good oral bioavailability and blood-brain barrier penetration ability. Meanwhile, it exhibits significant analgesic effects and anti-glioblastoma pharmacological activity, and can be applied to mechanism and efficacy research of glioblastoma and other tumors.
Targets(IC ₅₀)	EGFR
In vitro	<p>Methods:</p> <p>An in vitro cell proliferation inhibition assay was used to detect the proliferative inhibitory effect of EGFR/COX-2-IN-3 on human glioma U-251 and SNB-75 cells, and the half-maximal inhibitory concentration (IC₅₀) was determined.</p> <p>Results:</p> <p>EGFR/COX-2-IN-3 exhibited significant cytotoxicity and proliferation inhibitory activity against both U-251 and SNB-75 glioma cells, with IC₅₀ values of 8.8 μM and 2.6 μM, respectively [1].</p>
In vivo	<p>Methods:</p> <p>The analgesic activity of EGFR/COX-2-IN-3 was evaluated using the mouse hot plate test, with celecoxib set as the control for comparison.</p> <p>Results:</p> <p>EGFR/COX-2-IN-3 exhibited evident analgesic activity in the mouse hot plate test, with an AUC value of 37.83, which was superior to celecoxib [1].</p>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6633 mL	13.3166 mL	26.6333 mL
5 mM	0.5327 mL	2.6633 mL	5.3267 mL
10 mM	0.2663 mL	1.3317 mL	2.6633 mL
50 mM	0.0533 mL	0.2663 mL	0.5327 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

Farag KO, et al. Pyrazole derivatives as dual COX-2/EGFR inhibitors with anticancer potential: Optimization of difenamizole Analogs. *Bioorg Chem.* 2026;170:109444.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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