

EGFR-IN-167

Chemical Properties

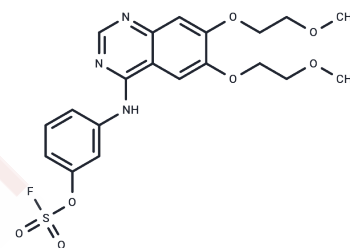
CAS No. : 3052761-67-5

Formula: C₂₀H₂₂FN₃O₇S

Molecular Weight: 467.47

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-IN-1671 is a selective EGFR inhibitor with an IC ₅₀ value of 0.19 nM. It effectively inhibits various EGFR mutants, showing IC ₅₀ values of 0.109 nM for EGFR(L858R), 0.75 nM for EGFR(C797S), and less than 0.05 nM for EGFR(del19). EGFR-IN-1671 covalently binds to the catalytically conserved lysine of EGFR in live mammalian cells. By inhibiting EGFR autophosphorylation, this compound demonstrates excellent antiproliferative activity. EGFR-IN-1671 is applicable in research on non-small cell lung cancer (NSCLC), glioblastoma, and various solid tumors.
Targets(IC ₅₀)	EGFR
In vitro	EGFR-IN-167 (Compound 26) exhibits superior in vitro activity with an IC ₅₀ of 35/1.8 nM. When tested on A431 and HCC827 cells at concentrations ranging from 1 to 100000 nM over 72 hours, it shows significant cytotoxic effects with GI ₅₀ values of 260 nM and 64 nM, respectively. It effectively inhibits malignant cell proliferation in H3255 (L858R) and Ba/F3 (C797S) cells with GI ₅₀ values of 458 nM and 112.7 nM, respectively. Additionally, EGFR-IN-167 at 0.01-10 μM over 4 hours continuously suppresses EGFR phosphorylation in A431 and HCC827 cells, retaining its inhibitory effect even after washout. In mouse liver microsomes, it has a half-life of 29.6 minutes and demonstrates favorable lipolytic stability. At a concentration of 10 μM, EGFR-IN-167 has low metabolic inhibition on five major CYP isoenzymes (CYP1A2, 2C9, 2C19, 2D6, and 3A4), all below 50%.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1392 mL	10.6959 mL	21.3917 mL
5 mM	0.4278 mL	2.1392 mL	4.2783 mL
10 mM	0.2139 mL	1.0696 mL	2.1392 mL
50 mM	0.0428 mL	0.2139 mL	0.4278 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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