

TRK II-IN-1

Chemical Properties

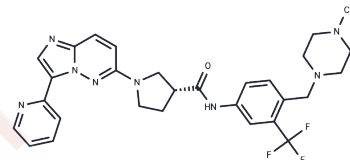
CAS No. : 2904690-41-9

Formula: C₂₉H₃₁F₃N₈O

Molecular Weight: 564.6

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	TRK II-IN-1 is a potent type II inhibitor of tropomyosin receptor kinases (TRK), with IC ₅₀ values of 3.3, 6.4, 4.3, and 9.4 nM against TRKA, TRKB, TRKC, and the mutant TRKA G667C, respectively. It also exhibits IC ₅₀ values of 1.3 nM against FLT3, 9.9 nM against RET, and 71.1 nM against VEGFR2. TRK II-IN-1 primarily serves as a research tool for studying TRK-driven cancers [1].
Targets(IC ₅₀)	FLT,c-RET,Trk receptor,VEGFR
In vitro	TRK II-IN-1 (compound 12d) demonstrated significant kinase inhibition, achieving over 90% inhibition of VEGFR2, RET, and FLT3, and approximately 70% inhibition of Kit, CSF1R, DDR1, and DDR2 at 1 μM [1]. The compound effectively inhibited growth in Ba/F3 cell lines Ba/F3-CD74-TRKA, Ba/F3-ETV6-TRKB, and Ba/F3-ETV6-TRKC at 72 hours, with IC ₅₀ values of 26.1, 44.7, and 15.7 nM respectively [1]. It also suppressed proliferation in Ba/F3 cells with various TRK fusion proteins (wild type and mutant), showing IC ₅₀ values of 2.6-143.3 nM [1]. TRK II-IN-1 induced apoptosis in Ba/F3-CD74-TRKA and Ba/F3-CD74-TRKA G667C cells within 48 hours at concentrations of 0.4-500 nM [1], caused G ₀ /G ₁ cell cycle arrest in the same cells over 24 hours [1], and dose-dependently suppressed phosphorylation of TRKA, TRKA G667C, AKT, ERK, and PLCγ1 after 6 hours of treatment at 0.8-500 nM [1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.7712 mL	8.8558 mL	17.7117 mL
5 mM	0.3542 mL	1.7712 mL	3.5423 mL
10 mM	0.1771 mL	0.8856 mL	1.7712 mL
50 mM	0.0354 mL	0.1771 mL	0.3542 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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