

Pan-RAS-IN-6

Chemical Properties

CAS No. :

Formula: C46H60N8O5S

Molecular Weight: 837.08

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	Pan-RAS-IN-6 (compound 24) serves as a DUSP6 inhibitor, effectively reducing MAPK activation in the NCI-H1373-Luc model (DUSP6). It concurrently exhibits notable tumor growth inhibition and regression in the NSCLC brain metastasis mouse model. The compound displays high selectivity and potent inhibitory effects, particularly on KRAS mutation-associated signaling pathways. It demonstrates varied inhibitory activities against distinct KRAS mutants and their interacting proteins. The IC ₅₀ values for KRAS G12C, G12D, and G12V are 1.3 nM, 4.7 nM, and 0.3 nM, respectively.
Targets(IC50)	Phosphatase,Ras
In vitro	Pan-RAS-IN-6 inhibits cell proliferation in NCI-H23, NCI-H358, NCI-H2444, RKN, and SW620 with IC ₅₀ values of 0.17 nM, 0.12 nM, 0.17 nM, 0.045 nM, and 0.1 nM, respectively. The compound demonstrates IC ₅₀ values against KRAS G12V, wild-type KRAS, wild-type HRAS, and wild-type NRAS-BRAF with CYPA interaction of 7 nM, 32 nM, 38 nM, and 35 nM, respectively; and in conditions of G12C, G12D, and G12V, the IC ₅₀ values for KRAS-BRAF with CYPA interaction are 9.7 nM, 49.5 nM, and 7.1 nM. Additionally, Pan-RAS-IN-6 inhibits pERK with IC ₅₀ values of less than 0.6 nM for G12C and G12V, and 0.9 nM for G12D.
In vivo	Pan-RAS-IN-6, administered orally at a dose of 30 mg/kg once daily, inhibits tumor growth and promotes tumor regression in a mouse model of non-small cell lung cancer (NSCLC) brain tumors. Additionally, this compound reduces the expression of DUSP6 in the brains of the NCI-H1373-Luc model.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.1946 mL	5.9731 mL	11.9463 mL
5 mM	0.2389 mL	1.1946 mL	2.3893 mL
10 mM	0.1195 mL	0.5973 mL	1.1946 mL
50 mM	0.0239 mL	0.1195 mL	0.2389 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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