

FLT3/CHK1-IN-2

Chemical Properties

CAS No. :

Formula: C18H23F3N6O2S

Molecular Weight:

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	FLT3/CHK1-IN-2 (Compound 30) is a dual inhibitor targeting FLT3 and CHK1, with IC50 values of 25.63 nM for CHK1, 16.39 nM for FLT3-WT, and 22.80 nM for FLT-D835Y. It displays favorable oral pharmacokinetic properties and kinase selectivity. FLT3/CHK1-IN-2 is applicable in acute myeloid leukemia (AML) research.
Targets(IC50)	FLT,Chk
In vitro	FLT3/CHK1-IN-2 exhibits antiproliferative effects on MV4-11 cells with an IC ₅₀ of less than 4 nM. This compound also shows antiproliferative activity against BaF3 cells containing various FLT3 mutations, with IC ₅₀ values for BaF3-FLT3-F691L, BaF3-FLT3-D835F, BaF3-FLT3-D835V, BaF3-FLT3-ITD, and BaF3-FLT3-ITD/D835Y being 28.96, 29.30, 26.37, 30.24, and 75.81 nM, respectively. Additionally, FLT3/CHK1-IN-2, within the concentration range of 0-100 nM, inhibits the phosphorylation of FLT3 and its main downstream effectors STAT5 (Tyr694), AKT (Ser473), and ERK (Tyr204) in MV4-11 cells, while also reducing pS296-CHK1 levels and c-Myc protein expression.
In vivo	FLT3/CHK1-IN-2 (20 mg/kg, oral administration) demonstrates favorable pharmacokinetic (PK) properties, with a maximum concentration (C max) of 2213.07 ng/mL and an area under the curve (AUC(0-t)) of 2736.58 h·ng/mL.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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