

AKN-028

Chemical Properties

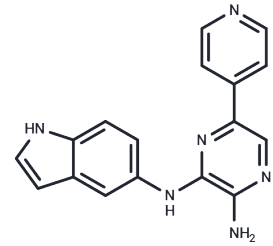
CAS No. : 1175017-90-9

Formula: C₁₇H₁₄N₆

Molecular Weight: 302.33

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	AKN-028 is an orally active and potent FLT3 tyrosine kinase inhibitor (IC ₅₀ = 6 nM). AKN-028 causes dose-dependent inhibition of FLT3 autophosphorylation.
Targets(IC ₅₀)	Apoptosis,FLT,Caspase
In vitro	AKN-028 triggers apoptosis in MV4-11 by activation of caspase 3 [1]. AKN-028 (10 μM) is cytotoxic to AML cell lines and induces apoptosis in the AML cell line MV4-11 [1]. Cell Cytotoxicity Assay [1] Cell Line: AML cell line MV4-11. Concentration: 10 μM. Incubation Time: 24 h. Result: Was cytotoxic to primary AML cells, irrespective of FLT3 mutation status and quantitative FLT3 expression.
In vivo	AKN-028 (15 mg/kg, Subcutaneously injection twice daily) exhibits anti-tumor activities for acute myeloid leukemia (AML) models [1]. Animal Model: Mice based AML and MV4-11 cells [1]. Dosage: 15 mg/kg. Administration: Subcutaneously injection twice daily. Result: Inhibited net growth of one of the primary AML samples (UPN26) in vivo and furthermore reduced the tumor mass of MV4-11 cell line.

Solubility Information

Solubility	DMSO: 20 mg/mL (66.15 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.3076 mL	16.5382 mL	33.0764 mL
5 mM	0.6615 mL	3.3076 mL	6.6153 mL
10 mM	0.3308 mL	1.6538 mL	3.3076 mL
50 mM	0.0662 mL	0.3308 mL	0.6615 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

A Eriksson, et al. The Novel Tyrosine Kinase Inhibitor AKN-028 Has Significant Antileukemic Activity in Cell Lines and Primary Cultures of Acute Myeloid Leukemia. Blood Cancer J. 2012 Aug 3;2(8):e81.

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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