

YX-2-107

Chemical Properties

CAS No. : 2417408-46-7

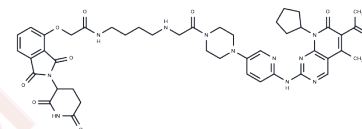
Formula: C45H51N11O9

Molecular Weight: 889.95

Keep away from direct sunlight

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	YX-2-107 is a selective and potent CDK6-degrading PROTAC with an IC50 value of 4.4 nM. YX-2-107 inhibits RB phosphorylation and FOXM1 expression in vitro, and inhibits the development of Ph+ ALL in rats. YX-2-107 can be used for the prophylaxis and treatment of Ph chromosome-positive (Ph+) acute lymphoblastic leukemia (ALL). YX-2-107 can be used for the prevention and treatment of Ph chromosome-positive (Ph+) acute lymphoblastic leukemia (ALL).
Targets(IC50)	CDK, PROTACs
In vitro	In Ph+ BV173 and SUP-B15 cells, YX-2-107, when applied at a concentration of 2000 nM for 48 hours, demonstrates inhibition of the S phase[1]. Furthermore, at various concentrations (0, 1.6, 8, 40, 200, 1000 nM) for 4 hours, YX-2-107 selectively degrades CDK6 in BV173 cells[1]. Additionally, when used at a concentration of 2000 nM for 72 hours, YX-2-107 inhibits RB phosphorylation and FOXM1 expression in Ph+ BV173 and SUP-B15 cells[1].
In vivo	Following a single intraperitoneal administration at a dose of 10 mg/kg, YX-2-107 achieves a maximum concentration of 741 nM in plasma after 4 hours. This concentration is 150-fold greater than the CDK6 degradation IC50. Clearance from the plasma is observed within the mentioned timeframe[1]. Moreover, when administered at a dose of 150 mg/kg intraperitoneally, once daily for 3 days, YX-2-107 is pharmacologically active in suppressing the proliferation of Ph+ ALL in mice[1].

Solubility Information

Solubility	DMSO: 2.4 mg/mL (2.7 mM), Sonication and heating are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.1237 mL	5.6183 mL	11.2366 mL
5 mM	0.2247 mL	1.1237 mL	2.2473 mL
10 mM	0.1124 mL	0.5618 mL	1.1237 mL
50 mM	0.0225 mL	0.1124 mL	0.2247 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

De Dominici M, et al. Selective inhibition of Ph-positive ALL cell growth through kinase-dependent and -independent effects by CDK6-specific PROTACs. *Blood*. 2020 Apr 30;135(18):1560-1573.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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