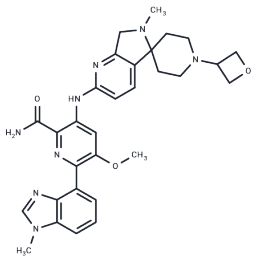
Data Sheet (Cat.No.T204520)

TargetMol

HPK1-IN-55

Chemical Properties



CAS No. : 3048537-58-9

Formula: C30H34N8O3

Molecular Weight: 554.643

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	HPK1-IN-55 (compound 19) is a selective and orally active inhibitor of hematopoietic progenitor kinase 1 (HPK1) with an IC50 of less than 0.51 nM. It exhibits exceptional kinase selectivity, being over 637 times more selective for HPK1 compared to GCK kinase and over 1022 times compared to LCK. HPK1-IN-55 possesses anti-cancer properties.
Targets(IC50)	MAPK
In vitro	HPK1-IN-55 (0.5-10000 nM, 5 h) demonstrates HPK1 enzyme inhibition in human PBMCs, with an IC50 of less than 0.51 nM, and suppresses cellular IL-2 secretion with an EC50 of 43.3 nM [1]. Additionally, HPK1-IN-55 (0.001-100 nM) encourages the release of IL-2 and IFN-γ in human PBMCs, with EC50 values of 38.8 and 49.2 nM, respectively [1]. Moreover, HPK1-IN-55 (0.00457-10 μM, 72 h) enhances T cell proliferation in human immune T cells at low, medium, and high concentrations [1].
In vivo	HPK1-IN-55, when administered at doses of 1.5-12 mg/kg orally twice daily for 5 weeks, demonstrates significant antitumor activity as a monotherapy and shows an additive effect when combined with anti-PD-1 in the CT26 model, while exhibiting a synergistic effect in the MC38 model [1]. In monkeys, HPK1-IN-55 at 1 mg/kg intravenously and 2 mg/kg orally shows a moderate clearance rate (Clp = 11.41 mL/min/kg), with satisfactory oral exposure (DNAUC (0–24 h) =560.5 h•ng/mL) and bioavailability (F % = 42.0) [1]. Additionally, HPK1-IN-55 demonstrates effective target engagement in the CT26 model at 1.5-12 mg/kg orally twice daily for 5 weeks.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.803 mL	9.0149 mL	18.0297 mL
5 mM	0.3606 mL	1.803 mL	3.6059 mL
10 mM	0.1803 mL	0.9015 mL	1.803 mL
50 mM	0.0361 mL	0.1803 mL	0.3606 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.