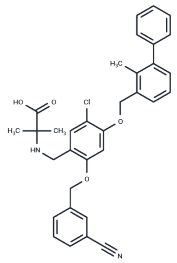
Data Sheet (Cat.No.T36900)

TargetMol
YOUR TARGET MOLECULES

PD-1/PD-L1-IN-NP19

Chemical Properties



CAS No. : 2377916-66-8

Formula: C33H31ClN2O4

Molecular Weight: 555.06

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	PD-1/PD-L1-IN-NP19, a PD-1/PD-L1 inhibitor, exhibits an IC50 of 12.5 nM against the human PD-1/PD-L1 interaction, potentially activating the tumor immune microenvironment and contributing to its antitumor effects[1].
Targets(IC50)	PD-1/PD-L1
In vitro	PD-1/PD-L1-IN-NP19 (compound NP19) (0.37-10 μM; 72 h) significantly elevates the production of IFN-γ in a dose dependent manner from T cells co-cultured with tumor cells[1].PD-1/PD-L1-IN-NP19 exhibits much lower activity for inhibiting mouse PD-1/PD-L1 interaction with an IC50 in the micromolar range (>1μM), as compared to the inhibition of human PD1/PD-L1 interaction (IC50=12.5 nM)[1].PD-1/PD-L1-IN-NP19 (10 μM; 48 h) displays no apparent cytotoxic effects on A549, MCF-7, and B16-F10 cells at a concentration of 10 μM[1].
In vivo	PD-1/PD-L1-IN-NP19 (compound NP19) (25-100 mg/kg; intragastric gavage once daily for 15 d) inhibits the growth of melanoma tumors dramatically in mice[1].PD-1/PD-L1-IN-NP19 (25 mg/kg; i.p. daily for 14 d) demonstrates significant antitumor efficacy with a tumor growth inhibition (TGI) of 76.5% and is well tolerated in an H22 hepatoma mouse model[1].PD-1/PD-L1-IN-NP19 (1 mg/kg; i.v.) shows the half time (t1/2=1.5±0.5 h), clearance rate (CL=0.9±0.2 L/h/kg) and apparent distribution volume (Vss=2.1±0.5 L/kg) in rats[1].PD-1/PD-L1-IN-NP19 (10 mg/kg; p.o.) shows the oral absorption (Tmax=0.6±0.2 h), long half-life (t1/2=10.9±7.7 h) and oral bioavailability (F=5%) in rats[1].

Solubility Information

Solubility	DMSO: 1.8 mg/mL (3.2 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.8016 mL	9.008 mL	18.0161 mL
5 mM	0.3603 mL	1.8016 mL	3.6032 mL
10 mM	0.1802 mL	0.9008 mL	1.8016 mL
50 mM	0.036 mL	0.1802 mL	0.3603 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.

Reference

Cheng B, et, al. Discovery of Novel Resorcinol Dibenzyl Ethers Targeting the Programmed Cell Death-1/Programmed Cell Death-Ligand 1 Interaction As Potential Anticancer Agents. J Med Chem. 2020 Jul 15.