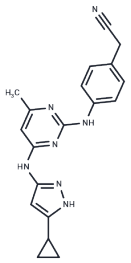
Data Sheet (Cat.No.T82960)

TargetMol

ASC-69

Chemical Properties



CAS No. : 1216665-50-7

Formula: C19H19N7

Molecular Weight: 345.4

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	ASC-69 (APY69) is a potent small-molecule PD-1/PD-L1 signaling pathway inhibitor that restores T-cell immune function by blocking the interaction between PD-1 and PD-L1. ASC-69 is widely used in both in vitro and in vivo experimental models related to tumor immunology, immune checkpoint regulatory mechanism research, and anti-tumor drug development to evaluate its immune-enhancing and anti-cancer potential.
Targets(IC50)	PD-1/PD-L1
In vitro	In HTRF assays, ASC-69 inhibited the PD-1/PD-L1 interaction with an IC50 of 1.86 nM by inducing PD-L1 dimerization [1].
In vivo	In syngeneic mouse models, including CT26 and MC38, oral or intraperitoneal (i.p.) administration of ASC-69 results in dose-dependent tumor growth inhibition. The antitumor efficacy observed is comparable to that of anti-PD-L1 monoclonal antibodies. The presence of the difluoromethyleneoxy linker contributes to the compound's metabolic stability and oral bioavailability in rodent models

Solubility Information

Solubility	DMSO: 80 mg/mL (231.62 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.8952 mL	14.476 mL	28.9519 mL
5 mM	0.579 mL	2.8952 mL	5.7904 mL
10 mM	0.2895 mL	1.4476 mL	2.8952 mL
50 mM	0.0579 mL	0.2895 mL	0.579 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

Song Z, et al. Design, Synthesis, and Pharmacological Evaluation of Biaryl-Containing PD-1/PD-L1 Interaction Inhibitors Bearing a Unique Difluoromethyleneoxy Linkage. J Med Chem. 2021;64(22):16687-16702.