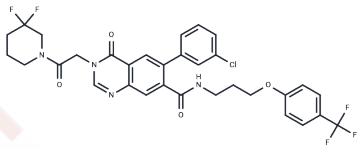
Data Sheet (Cat.No.T72473)

TargetMol

NOD1/2 antagonist-1

Chemical Properties



CAS No. : 2704623-69-6

Formula: C32H28ClF5N4O4

Molecular Weight: 663.03

Storage: Store at low temperature
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	NOD1/2 antagonist-1 is a dual inhibitor of nucleotide-binding oligomerization domain-like receptors NOD1 and NOD2, exhibiting IC50 values of 1.13 uM for NOD1 and 0.77 uM for NOD2, with an acceptable half-life of 67.6 minutes. NOD1/2 antagonist-1 enhances the antitumor efficacy of paclitaxel and serves as a potent experimental tool for investigating innate immune receptor-mediated signaling and cancer therapy modulation.
Targets(IC50)	NOD-like Receptor (NLR),NOD
In vitro	NOD1/2 antagonist-1 (0-10 μM, 3 hours) can inhibit C12-iE-DAP-induced or MDP-induced NF-κB activation [1]. NOD1/2 antagonist-1 (0-10 μM, 1 hour) suppresses inflammatory responses by activating NOD1 and NOD2 [1]. NOD1/2 antagonist-1 (0-10 μM, 1 hour) sustainably and dose-dependently reduces the transcriptional levels of IL-6, TNF-α, and IL-8 [1].
In vivo	In the B16 tumor-bearing model, NOD1/2 antagonist-1 (50 mg/kg, intravenous injection, once every other day for 16 days) significantly enhanced the anti-tumor effect of paclitaxel (PTX) [1].

Solubility Information

Solubility	DMSO: 25 mg/mL (37.71 mM),Sonication is recommended. H2O: < 1 mg/mL (insoluble),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.5082 mL	7.5411 mL	15.0823 mL
5 mM	0.3016 mL	1.5082 mL	3.0165 mL
10 mM	0.1508 mL	0.7541 mL	1.5082 mL
50 mM	0.0302 mL	0.1508 mL	0.3016 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

Ma Y, Yang J, Wei X, et al. Nonpeptidic quinazolinone derivatives as dual nucleotide-binding oligomerization domain-like receptor 1/2 antagonists for adjuvant cancer chemotherapy. Eur J Med Chem. 2020;207:112723.