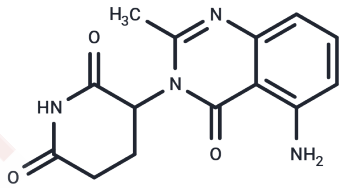
Data Sheet (Cat.No.T3549)

TargetMol

Avadomide

Chemical Properties



CAS No. : 1015474-32-4

Formula: C14H14N4O3

Molecular Weight: 286.29

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	Avadomide (CC 122) is an orally available pleiotropic pathway modulator with potential antineoplastic activity.
Targets(IC50)	Apoptosis,E1/E2/E3 Enzyme,NF-κB,Ligands for E3 Ligase,Molecular Glues
In vitro	Avadomide is a novel agent for DLBCL with antitumor and immunomodulatory activity. In DLBCL cell lines, It binds CRBN and induces degradation or short hairpin RNA-mediated knockdown of Aiolos and Ikaros which correlates with increased transcription of interferon (IFN)-stimulated genes independent of IFN-α, -β, and -γ production and/or secretion and results in apoptosis in both activated B-cell (ABC) and germinal center B-cell DLBCL cell lines. CRBN is the molecular target of Avadomide, Avadomide binding to CRBN recruits Aiolos/Ikaros to CRL4CRBN, and E3 ligase enzymatic activity is necessary for ubiquitination of Aiolos and Ikaros and thus their proteasomal degradation induced by Avadomide. Avadomide induces IFN-regulated proteins and its mediated effects on the IFN pathway is independent of autocrine type I and II IFN secretion and signaling[1].
In vivo	Avadomide reduces tumor growth in xenograft models established from ABC- and GCB-DLBCL cell lines, and stimulates IL-2 production in primary T cells. Also, in a single-arm Avadomide Clinicalal trial, exposure to Avadomide reduced expression levels of Aiolos and Ikaros in each patient by 25% to 50% demonstrating the utility of these 2 proteins as pharmacodynamic markers of Avadomide[1].
Cell Research	Diffuse Large B-Cell Lymphoma are cultured in RPMI-1640 containing 10-20% fetal bovine serum, 1% Penicillin/Streptomycin and 1 mM sodium pyruvate. 2×104 cells are plated per well in media containing either DMSO or various concentrations of CC-122. Cells are cultured for 5 days at 37 degrees Celsius after which tritiated thymidine is added to the cell culture for the final 6 hours. Cells are subsequently harvested onto filter plates. After the plates have dried, scintillation fluid is added to the plates and read on a Top-count reader(Only for Reference)

Solubility Information

Solubility	Ethanol: 1 mg/mL (3.49 mM),Sonication is recommended. DMSO: 250 mg/mL (873.24 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 10 mg/mL (34.93 mM),Solution. 10% DMSO+90% Saline: < 10 mg/mL (34.93 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.493 mL	17.4648 mL	34.9296 mL
5 mM	0.6986 mL	3.493 mL	6.9859 mL
10 mM	0.3493 mL	1.7465 mL	3.493 mL
50 mM	0.0699 mL	0.3493 mL	0.6986 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

Hagner PR, et al. Blood. 2015, 126(6):779-89.
Li P, Hu X, Fan Z, et al.Novel potent molecular glue degraders against broad range of hematological cancer cell lines via multiple neosubstrates degradation.Journal of Hematology & Oncology.2024, 17(1): 77.