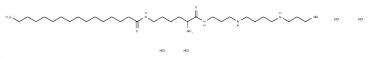
Data Sheet (Cat.No.T10313)

TargetMol

(Rac)-AMXT-1501 4HCl

Chemical Properties



CAS No. : 2771343-93-0

Formula: C32H72Cl4N6O2

Molecular Weight: 714.77

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	(Rac)-AMXT-1501 4HCl is a polyamine transport inhibitor that inhibits polyamine transport and acts synergistically with cisplatin in HNSCC. (Rac)-AMXT-1501 4HCl has potential antimicrobial activity and inhibits neuroblastoma cell proliferation and pneumococcal pod biosynthesis by targeting ornithine decarboxylase and polyamine transport.
Targets(IC50)	Apoptosis,Antibacterial,Dopamine Receptor
In vitro	In BE(2)-C, SMS-KCNR, and SH-SY5Y cells, AMXT-1501 tetrahydrochloride (0.39 μM, 1 μM, 3.1 μM, 10 μM, 31 μM, 50 μM; 48 hours) exhibited cytotoxicity against this panel of NB cell lines[2].
In vivo	In C57BL/6 (WT) and experimental autoimmune encephalomyelitis (EAE) model-bearing ODC knockout strain (ODC cKO) mice, AMXT-1501 tetrahydrochloride (3 mg/kg; subcutaneous injection; once daily; 28 days) initially displayed a delayed disease onset but eventually proceeded with pathological development and reached the endpoint[3].

Solubility Information

Solubility	H2O: 72.5 mg/mL (101.43 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.3991 mL	6.9953 mL	13.9905 mL
5 mM	0.2798 mL	1.3991 mL	2.7981 mL
10 mM	0.1399 mL	0.6995 mL	1.3991 mL
50 mM	0.028 mL	0.1399 mL	0.2798 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

Hayes CS, et al. Polyamine-blocking therapy reverses immunosuppression in the tumor microenvironment. Cancer Immunol Res. 2014 Mar;2(3):274-85.
Katherine Samal, et al. AMXT-1501, a novel polyamine transport inhibitor, synergizes with DFMO in inhibiting neuroblastoma cell proliferation by targeting both ornithine decarboxylase and polyamine transport. Int J Cancer. 2013 Sep 15;133(6):1323-33.
Ruohan Wu, et al. De novo synthesis and salvage pathway coordinately regulate polyamine homeostasis and determine T cell proliferation and function. Sci Adv. 2020 Dec 16;6(51):eabc4275.

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