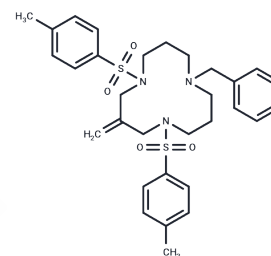


Cyclotriazadisulfonamide

Chemical Properties

CAS No. :	182316-44-5
Formula:	C ₃₁ H ₃₉ N ₃ O ₄ S ₂
Molecular Weight:	581.79
Storage:	Store at low temperature Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	Cyclotriazadisulfonamide (CADA) is a selective, CD4-targeted HIV inhibitor and Sec61 inhibitor that downregulates CD4 T-cell receptors and restricts CD4 translocation, thereby limiting HIV binding and entry. It exhibits activity against multiple HIV strains.
Targets(IC50)	HIV Protease, Immunology/Inflammation related
In vitro	<p>Cyclotriazadisulfonamide is a selective inhibitor of the Sec61 translocon. A proteomics study targeting T cells revealed that this compound has only five substrate targets: huCD4, SORT, CD137, DNAJC3, PTK7, and ERLEC1, with IC50 values ranging from 0.2 to 2 μM [3].</p> <p>Cyclotriazadisulfonamide (CADA) significantly reduces the expression level of cell surface CD4 protein while showing no effect on the expression of any other tested cellular receptors [1].</p> <p>In MO-DC cells, the EC50 of CADA for downregulating CD4 protein is 0.4 μg/mL. Treatment of MO-DC cells with 10 μg/mL CADA resulted in an 83% downregulation of cell surface CD4 protein expression, an effect similar to that observed in CADA-treated CD4+ T cells [1].</p> <p>CADA protects MT-4 cells from infection by HIV-1 and SIV, with corresponding EC50 values of 0.7 μg/mL and 1.2 μg/mL, respectively [1].</p>

Solubility Information

Solubility	DMSO: 25 mg/mL (42.97 mM), Sonication and heating are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.7188 mL	8.5942 mL	17.1883 mL
5 mM	0.3438 mL	1.7188 mL	3.4377 mL
10 mM	0.1719 mL	0.8594 mL	1.7188 mL
50 mM	0.0344 mL	0.1719 mL	0.3438 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

Kurt Vermeire, et al. CADA, a potential anti-HIV microbicide that specifically targets the cellular CD4 receptor. *Curr HIV Res.* 2008 May;6(3):246-56.

Victor Van Puyenbroeck, et al. Preprotein signature for full susceptibility to the co-translational translocation inhibitor cyclotriazadisulfonamide. *Traffic.* 2020 Feb;21(2):250-264.

Pauwels E, et al. Inhibitors of the Sec61 Complex and Novel High Throughput Screening Strategies to Target the Protein Translocation Pathway. *Int J Mol Sci.* 2021 Nov 5;22(21):12007.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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