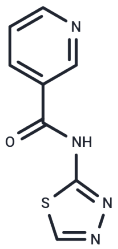
Data Sheet (Cat.No.T5102)

TargetMol

TGN-020

Chemical Properties



CAS No. : 51987-99-6

Formula: C8H6N4OS

Molecular Weight: 206.22

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	TGN-020 is an inhibitor of Aquaporin 4 (AQP4, IC50: 3.1 μM), the most abundant water channel in the brain.
Targets(IC50)	Aquaporin,E3 Ligase Ligand-Linker Conjugates,PROTAC Linker

Solubility Information

Solubility	DMSO: 12 mg/mL (58.19 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 1 mg/mL (4.85 mM),Sonication is recommended. *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	4.8492 mL	24.246 mL	48.4919 mL
5 mM	0.9698 mL	4.8492 mL	9.6984 mL
10 mM	0.4849 mL	2.4246 mL	4.8492 mL
50 mM	0.097 mL	0.4849 mL	0.9698 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

Huber VJ, et al. Identification of aquaporin 4 inhibitors using in vitro and in silico methods. Bioorg Med Chem. 2009 Jan 1;17(1):411-7.

Guo S, Song Z, He J, et al. Akt/aquaporin-4 signaling aggravates neuropathic pain by activating astrocytes after spinal nerve ligation in rats. Neuroscience. 2021

Igarashi H, et al. Inhibition of aquaporin-4 significantly increases regional cerebral blood flow. Neuroreport. 2013 Apr 17;24(6):324-8.

Murdock M H, Yang C Y, Sun N, et al.Multisensory gamma stimulation promotes glymphatic clearance of amyloid. Nature.2024: 1-8.

Wu W, Zhao Y, Cheng X, et al.Modulation of glymphatic system by visual circuit activation alleviates memory impairment and apathy in a mouse model of Alzheimer's disease.Nature Communications.2025, 16(1): 63.

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