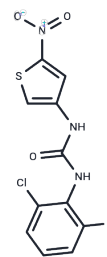


DFP00173

Chemical Properties

CAS No. : 672286-03-2
Formula: C₁₁H₇Cl₂N₃O₃S
Molecular Weight: 332.16
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	DFP00173 is a potent and selective aquaporin 3 (AQP3) inhibitor, with an IC ₅₀ of approximately 0.1-0.4 μM for both mouse and human AQP3. It demonstrates selectivity for AQP3 compared to homologous AQP subtypes AQP7 and AQP9.
Targets(IC ₅₀)	Aquaporin
In vitro	DFP00173 inhibits the glycerol permeability of human red blood cells with an IC ₅₀ of approximately 0.2 μM.

Solubility Information

Solubility	H ₂ O: < 1 mg/mL (insoluble or slightly soluble) DMSO: 100 mg/mL (301.06 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: 2 mg/mL (6.02 mM), Sonication is recommended. <i>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.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.0106 mL	15.053 mL	30.106 mL
5 mM	0.6021 mL	3.0106 mL	6.0212 mL
10 mM	0.3011 mL	1.5053 mL	3.0106 mL
50 mM	0.0602 mL	0.3011 mL	0.6021 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

Sonntag Y, et al. Identification and characterization of potent and selective aquaporin-3 and aquaporin-7 inhibitors. J Biol Chem. 2019 May 3;294(18):7377-7387.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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