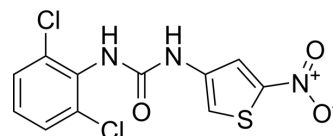


## DFP00173

<b>Cat. No.:</b>	HY-126073		
<b>CAS No.:</b>	672286-03-2		
<b>Molecular Formula:</b>	C <sub>11</sub> H <sub>7</sub> Cl <sub>2</sub> N <sub>3</sub> O <sub>3</sub> S		
<b>Molecular Weight:</b>	332.16		
<b>Target:</b>	Aquaporin		
<b>Pathway:</b>	Membrane Transporter/Ion Channel		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : ≥ 100 mg/mL (301.06 mM)  
 \* "≥" means soluble, but saturation unknown.

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	3.0106 mL	15.0530 mL	30.1060 mL
	5 mM	0.6021 mL	3.0106 mL	6.0212 mL
	10 mM	0.3011 mL	1.5053 mL	3.0106 mL

Please refer to the solubility information to select the appropriate solvent.

#### In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: ≥ 2.08 mg/mL (6.26 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.08 mg/mL (6.26 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.08 mg/mL (6.26 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

DFP00173 is a potent and selective aquaporin-3 (AQP3) inhibitor. DFP00173 inhibits mouse and human AQP3 with an IC<sub>50</sub> of ~0.1-0.4 μM. DFP00173 is selective for AQP3 over the homologous AQP isoforms AQP7 and AQP9<sup>[1]</sup>.

#### In Vitro

DFP00173 inhibits the glycerol permeability of human erythrocytes with an IC<sub>50</sub> of ~0.2 μM<sup>[1]</sup>.  
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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## CUSTOMER VALIDATION

- Int J Mol Sci. 2024 Sep 4;25(17):9604.
- Biochem Biophys Res Commun. 2023 Jul 25;676:158-164.
- Biochim Biophys Acta Gen Subj. 2023 Apr 28;130371.
- Anal Biochem. 2022 Oct 4;114934.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

## REFERENCES

[1]. 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.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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