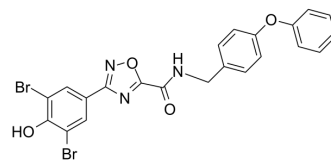


IOWH-032

Cat. No.:	HY-18337		
CAS No.:	1191252-49-9		
Molecular Formula:	C ₂₂ H ₁₅ Br ₂ N ₃ O ₄		
Molecular Weight:	545.18		
Target:	CFTR; SARS-CoV		
Pathway:	Membrane Transporter/Ion Channel; Anti-infection		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (183.43 mM)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	1.8343 mL	9.1713 mL	18.3426 mL
	5 mM	0.3669 mL	1.8343 mL	3.6685 mL
	10 mM	0.1834 mL	0.9171 mL	1.8343 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: ≥ 2.5 mg/mL (4.59 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: ≥ 2.5 mg/mL (4.59 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

IOWH-032 is a synthetic anti-secretory molecule, is a potent CFTR inhibitor with an IC₅₀ value of 8 μM. IOWH-032 also is a anti-diarrheal agent^{[1][2]}.

In Vitro

IOWH-032 (10 μM; 0-72 h) increases the ACE-2 expression in SARS-CoV-2 infected CFBE41o- WT cells^[1].
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.
 Western Blot Analysis^[1]

Cell Line:	CFBE41o- cells
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Concentration:	10 μ M
Incubation Time:	0, 24, 48, 72 h
Result:	Increased the ACE-2 expression in SARS-CoV-2 infected CFBE41o- WT cells in a time-dependent manner.

CUSTOMER VALIDATION

- Cells. 2023 Feb 28;12(5):776.
- Cells. 2022 Apr 15;11(8):1347.
- Am J Physiol Lung Cell Mol Physiol. 2016 Aug 1;311(2):L192-207.

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REFERENCES

- [1]. Lotti V, et al. CFTR Modulation Reduces SARS-CoV-2 Infection in Human Bronchial Epithelial Cells. Cells. 2022 Apr 15;11(8):1347.
- [2]. Thiagarajah JR, et al. CFTR inhibitors for treating diarrheal disease. Clin Pharmacol Ther. 2012 Sep;92(3):287-90.
- [3]. Doyle K, et al. Inhibitors Of The CFTR Chloride Ion Channel As Potential Treatment For Acute Secretory Diarrhea: Development Of 5-membered Heterocycles Suitable For Pre-clinical Evaluation
- [4]. de Hostos EL, et al. Developing novel antisecretory drugs to treat infectious diarrhea. Future Med Chem. 2011 Aug;3(10):1317-25.

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

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