Posenacaftor sodium

Cat. No.: HY-109187A

CAS No.: 2095064-06-3

Molecular Formula: $C_{27}H_{26}NNaO_5$

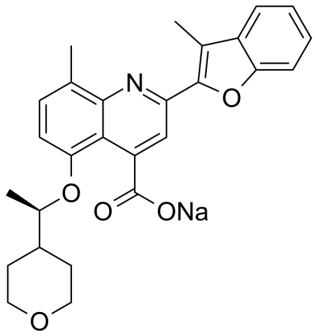
Molecular Weight: 467

Target: CFTR

Pathway: Membrane Transporter/Ion Channel

Storage: 4°C, sealed storage, away from moisture

* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 200 mg/mL (428.27 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.1413 mL	10.7066 mL	21.4133 mL
	5 mM	0.4283 mL	2.1413 mL	4.2827 mL
	10 mM	0.2141 mL	1.0707 mL	2.1413 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: 5 mg/mL (10.71 mM); Suspended solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 5 mg/mL (10.71 mM); Suspended solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

Posenacaftor (PTI-801) sodium is a cystic fibrosis transmembrane regulator (CFTR) protein modulator that corrects the folding and trafficking of CFTR protein. Posenacaftor sodium is used for the research of cystic fibrosis (CF)[1].

In Vitro

Cystic fibrosis (CF) is an autosomal recessive disorder, caused by mutations of the cystic fibrosis transmembrane conductance regulator (CFTR)[1].
CFTR is a cAMP-regulated chloride channel that is primarily located at the apical membrane of epithelial cells.Mutations in the CFTR gene lead to the production of a defective and misfolded CFTR protein, and impairs the flow of ions in and out of cells[1].
Posenacaftor is a CFTR corrector, correctors are always designed to fix and restore the function of the defective CFTR protein. The corrected CFTR then moves to the cell surface, where it functions as a chloride channel and helps maintain the right balance of fluid in the airways[2].

	MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Benjamin Kopp, et al. Compositions et procédés pour améliorer la fonction cftr dans des cellules affectées par la fibrose kystique. Patent WO2019156946.

[2]. Posenacaftor (PTI-801)

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