(R)-Posenacaftor sodium

Cat. No.: HY-109187B

CAS No.: 2095064-09-6

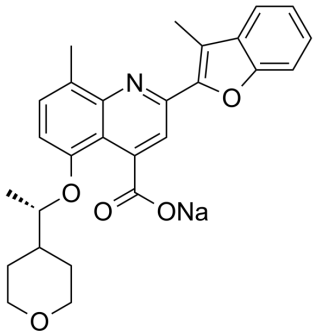
Molecular Formula: $C_{27}H_{26}NNaO_5$

Molecular Weight: 467.49

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 : 38.33 mg/mL (81.99 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.1391 mL	10.6954 mL	21.3908 mL
	5 mM	0.4278 mL	2.1391 mL	4.2782 mL
	10 mM	0.2139 mL	1.0695 mL	2.1391 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: ≥ 3.83 mg/mL (8.19 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 3.83 mg/mL (8.19 mM); Suspended solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

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

IC_{50} & Target

IC50: CFTR[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 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.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA