(S)-Verapamil hydrochloride

Cat. No.: HY-135336A

CAS No.: 36622-28-3

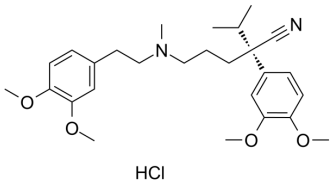
Molecular Formula: $C_{27}H_{39}ClN_2O_4$

Molecular Weight: 491.06

Target: Leukotriene Receptor; Calcium Channel; Apoptosis

Pathway: GPCR/G Protein; Membrane Transporter/Ion Channel; Neuronal Signaling; Apoptosis

Storage: 4°C, stored under nitrogen
* In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 200 mg/mL (407.28 mM; Need ultrasonic)
H_2O : 100 mg/mL (203.64 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.0364 mL	10.1821 mL	20.3641 mL
5 mM	0.4073 mL	2.0364 mL	4.0728 mL
10 mM	0.2036 mL	1.0182 mL	2.0364 mL

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

In Vivo

1. Add each solvent one by one: PBS
   Solubility: 100 mg/mL (203.64 mM); Clear solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 5 mg/mL (10.18 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 5 mg/mL (10.18 mM); Clear solution
4. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 5 mg/mL (10.18 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

(S)-Verapamil hydrochloride (S(-)-Verapamil hydrochloride) inhibits leukotriene C4 (LTC4) and calcein transport by MRP1. (S)-Verapamil hydrochloride leads to the death of potentially resistant tumor cells[1][2].

IC_{50} & Target

LTC_4

In Vitro

(S)-Verapamil hydrochloride (S(-)-Verapamil hydrochloride) not the (R)-Verapamil hydrochloride potently induces the death

of MRP1-transfected BHK-21 cells[1].

(S)-Verapamil hydrochloride is good active form and has the low bioavailability[1].

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

REFERENCES

[1]. Perrotton T, et al. (R)- and (S)-verapamil differentially modulate the multidrug-resistant protein MRP1. J Biol Chem. 2007 Oct 26;282(43):31542-8. Epub 2007 Jul 22.

[2]. Tannergren C, et al. St John's wort decreases the bioavailability of R- and S-verapamil through induction of the first-pass metabolism. Clin Pharmacol Ther. 2004 Apr;75(4):298-309.

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