Verapamil EP Impurity C hydrochloride

Cat. No.: HY-136589

CAS No.: 51012-67-0

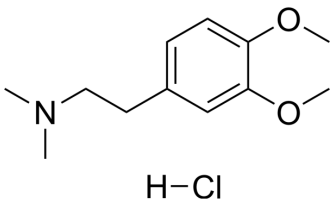
Molecular Formula: $C_{12}H_{20}ClNO_2$

Molecular Weight: 245.75

Target: Calcium Channel; P-glycoprotein; Cytochrome P450

Pathway: Membrane Transporter/Ion Channel; Neuronal Signaling; Metabolic Enzyme/Protease

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 : 62.5 mg/mL (254.32 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	4.0692 mL	20.3459 mL	40.6918 mL
	5 mM	0.8138 mL	4.0692 mL	8.1384 mL
	10 mM	0.4069 mL	2.0346 mL	4.0692 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: ≥ 2.08 mg/mL (8.46 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (8.46 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (8.46 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

NSC-609249 hydrochloride is an impurity of Verapamil (HY-14275). Verapamil is a calcium channel blocker and a potent and orally active first-generation P-glycoprotein (P-gp) inhibitor[1][2].

REFERENCES

[1]. Gowarty JL, et al. Verapamil as a culprit of palbociclib toxicity. J Oncol Pharm Pract. 2019 Apr;25(3):743-746.

[2]. Krikler DM. Verapamil in arrhythmia. Br J Clin Pharmacol. 1986;21 Suppl 2:183S-189S.

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