Xaliproden hydrochloride

Cat. No.: HY-14604

CAS No.: 90494-79-4

Molecular Formula: $C_{24}H_{23}ClF_3N$

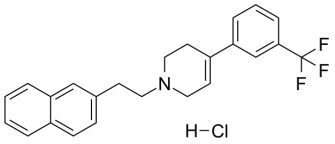
Molecular Weight: 417.89

Target: 5-HT Receptor; Dopamine Receptor

Pathway: GPCR/G Protein; Neuronal Signaling

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 : 33.33 mg/mL (79.76 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.3930 mL	11.9649 mL	23.9297 mL
	5 mM	0.4786 mL	2.3930 mL	4.7859 mL
	10 mM	0.2393 mL	1.1965 mL	2.3930 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: ≥ 2.5 mg/mL (5.98 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (5.98 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (5.98 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Xaliproden hydrochloride (SR57746A) is a potent, selective and orally active agonist of 5-HT_{1A} receptor, shows a high affinity for 5-HT_{1A} specific binding sites in the rat hippocampus (IC_{50}=3 nM). Xaliproden hydrochloride is also a selective antagonist of dopamine D_2 receptor, has moderate affinity (IC_{50}=0.1-1 μM). Xaliproden hydrochloride exhibits anti-depression and anti-anxiety effects, and it may possess therapeutic potential for the research of neurodegenerative diseases[1][2][3].

IC_{50} & Target		
	5-HT_{1A} Receptor	D_2 Receptor
	3 nM (IC_{50})	0.1-1 μM (IC_{50})

REFERENCES

[1]. Cervo L, et, al. Potential antidepressant properties of SR 57746A, a novel compound with selectivity and high affinity for 5-HT1A receptors. Eur J Pharmacol. 1994 Feb 21; 253(1-2): 139-47.

[2]. Simiand J, et, al. Neuropsychopharmacological profile in rodents of SR 57746A, a new, potent 5-HT1A receptor agonist. Fundam Clin Pharmacol. 1993;7(8):413-27.

[3]. Fournier J, et, al. Protective effects of SR 57746A in central and peripheral models of neurodegenerative disorders in rodents and primates. Neuroscience. 1993 Aug; 55(3): 629-41.

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