BRL-15572 dihydrochloride

Cat. No.: HY-13200

CAS No.: 193611-72-2

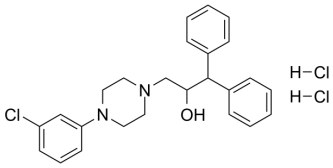
Molecular Formula: $C_{25}H_{29}Cl_3N_2O$

Molecular Weight: 479.87

Target: 5-HT 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 : 250 mg/mL (520.97 mM; Need ultrasonic)
H_2O : 2 mg/mL (4.17 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.0839 mL	10.4195 mL	20.8390 mL
5 mM	0.4168 mL	2.0839 mL	4.1678 mL
10 mM	0.2084 mL	1.0419 mL	2.0839 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 (4.33 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (4.33 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (4.33 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

BRL-15572 dihydrochloride is a selective antagonist of h5-HT1D, displays high affinity for h5-HT1D receptors. BRL-15572 dihydrochloride could be useful pharmacological agents to characterise 5-HT1D receptor mediated responses[1].

IC_{50} & Target

$5\text{-}HT_{1D}$ Receptor

In Vitro

BRL-15572 has 60-fold higher affinity for h5-HT1D (pK_i=7.9) than 5-HT1B receptors on human receptors expressed in CHO cells[1].
BRL-15572 (0.1 nM-10 μM) stimulates [^{35}S]GTPγS binding in CHO cell membranes expressing h5-HT1B and h5-HT1D

	receptors[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	BRL-15572 prevents (-)-epicatechin-induced antinociception in the formalin test[2]. BRL-15572 (0.3-100.0 mg/kg; i.p.) is inactive and BRL-15572 (0.1-10 mg/kg; i.p.) has no effect on body temperature the guinea pig[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Price GW, et, al. SB-216641 and BRL-15572--compounds to pharmacologically discriminate h5-HT1B and h5-HT1D receptors. Naunyn Schmiedebergs Arch Pharmacol. 1997 Sep; 356(3): 312-20.

[2]. Geovanna NQ, et, al. Antinociceptive effect of (-)-epicatechin in inflammatory and neuropathic pain in rats. Behav Pharmacol. 2018 Apr; 29(2 and 3-Spec Issue): 270-279.

[3]. Hagan JJ, et, al. Stimulation of 5-HT1B receptors causes hypothermia in the guinea pig. Eur J Pharmacol. 1997 Jul 23; 331(2-3): 169-74.

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