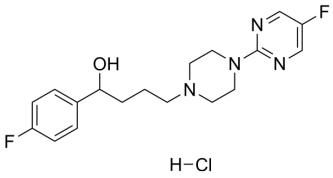
BMY-14802 hydrochloride

Cat. No.:	HY-108509
CAS No.:	105565-55-7
Molecular Formula:	$C_{18}H_{23}ClF_2N_4O$
Molecular Weight:	384.85
Target:	Sigma Receptor; 5-HT Receptor; Adrenergic Receptor
Pathway:	Neuronal Signaling; GPCR/G Protein
Storage:	-20°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 : 125 mg/mL (324.80 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.5984 mL	12.9921 mL	25.9841 mL
	5 mM	0.5197 mL	2.5984 mL	5.1968 mL
	10 mM	0.2598 mL	1.2992 mL	2.5984 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 (5.40 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (5.40 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (5.40 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

BMY-14802 hydrochloride (BMY-14802-1) is a selective and orally active sigma receptor antagonist with an IC_{50} of 112 nM. BMY-14802 hydrochloride is also a 5-HT1A and adrenergic α1 receptors agonist. BMY-14802 hydrochloride has antipsychotic effects[1][2][3].

IC_{50} & Target	sigma Receptor 112 nM (IC_{50})	5-HT_{1A} Receptor	α1-adrenergic receptor

In Vitro

Similar to other 5-HT1A agonists, BMY-14802 hydrochloride affects the firing of 5-HTergic and catecholaminergic neurons and affects behaviors mediated by 5-HT in a 5-HT1A-sensitive manner. BMY-14802 hydrochloride is devoid of significant

	affinity for the D2 receptor[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	BMY-14802 (5 mg/kg, 10 mg/kg or 20 mg/kg, ip; once) hydrochloride shows anti-dyskinetic efficacy across a 4-fold dose range against L-DOPA-induced dyskinesias (LID) and is also effective in reducing D1 and D2 receptor agonist-induced dyskinesias. Importantly, at anti-LID doses, BMY-14802 hydrochloride does not affect the efficacy of L-DOPA against lesion-induced akinesia[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. J P Yevich, et al. Synthesis and biological characterization of alpha-(4-fluorophenyl)-4-(5-fluoro-2-pyrimidinyl)-1-piperazinebutanol and analogues as potential atypical antipsychotic agents. J Med Chem. 1992 Nov 27;35(24):4516-25.

[2]. Nirmal Bhide, et al. The effects of BMY-14802 against L-DOPA- and dopamine agonist-induced dyskinesia in the hemiparkinsonian rat. Psychopharmacology (Berl). 2013 Jun;227(3):533-44.

[3]. Melanie A Paquette, et al. The sigma-1 antagonist BMY-14802 inhibits L-DOPA-induced abnormal involuntary movements by a WAY-100635-sensitive mechanism. Psychopharmacology (Berl). 2009 Jul;204(4):743-54.

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