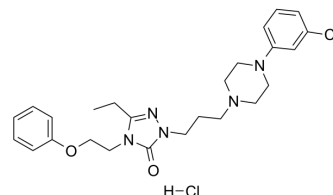


Nefazodone hydrochloride

Cat. No.:	HY-B1396		
CAS No.:	82752-99-6		
Molecular Formula:	C ₂₅ H ₃₃ Cl ₂ N ₅ O ₂		
Molecular Weight:	506.47		
Target:	5-HT Receptor; Adrenergic Receptor		
Pathway:	GPCR/G Protein; Neuronal Signaling		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (98.72 mM; Need ultrasonic)
H₂O : 2 mg/mL (3.95 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	1.9745 mL	9.8723 mL	19.7445 mL
	5 mM	0.3949 mL	1.9745 mL	3.9489 mL
	10 mM	0.1974 mL	0.9872 mL	1.9745 mL

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (4.94 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (4.94 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (4.94 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Nefazodone hydrochloride (BMY-13754) is a potent and selective 5HT_{2A} (K_i=5.8 nM) antagonist with moderate inhibition of 5-HT and noradrenaline uptake (IC₅₀ of 290 and 300 nM, respectively). Nefazodone hydrochloride is a phenylpiperazine antidepressant with less alpha-adrenergic blocking activity^{[1][2]}.

IC₅₀ & Target

5-HT _{2A} Receptor 5.8 nM (K _i)	α1-adrenergic receptor
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In Vitro

Nefazodone hydrochloride (BMY-13754) is a phenylpiperazine antidepressant with a mechanism of action that is distinct from those of other currently available drugs. Nefazodone hydrochloride potently and selectively blocks postsynaptic serotonin (5-hydroxytryptamine; 5-HT) 5-HT_{2A} receptors and moderately inhibits serotonin and noradrenaline (norepinephrine) reuptake. Nefazodone hydrochloride is also an inhibitor of the hepatic P-450 isoenzyme CYP3A4^[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Biotechnol Bioeng. 2021 Sep 3.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Pullar IA, et al. LY367265, an inhibitor of the 5-hydroxytryptamine transporter and 5-hydroxytryptamine(2A) receptor antagonist: a comparison with the antidepressant, nefazodone. Eur J Pharmacol. 2000;407(1-2):39-46.

[2]. Ellingrod VL, et al. Nefazodone: a new antidepressant. Am J Health Syst Pharm. 1995;52(24):2799-2812.

Caution: Product has not been fully validated for medical applications. For research use only.

India Contact:

Life Technologies (India) Pvt. Ltd.

306, Aggarwal City Mall, Opposite M2K Pitampura, Delhi – 110034 (INDIA). Ph: +91-11-42208000, 42208111, 42208222, Mobile: +91-9810521400, Fax: +91-11-42208444

Email: customerservice@lifetechindia.com Website: www.lifetechindia.com