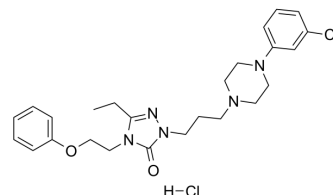


## Nefazodone hydrochloride

<b>Cat. No.:</b>	HY-B1396
<b>CAS No.:</b>	82752-99-6
<b>Molecular Formula:</b>	C <sub>25</sub> H <sub>33</sub> Cl <sub>2</sub> N <sub>5</sub> O <sub>2</sub>
<b>Molecular Weight:</b>	506.47
<b>Target:</b>	5-HT Receptor; Adrenergic Receptor
<b>Pathway:</b>	GPCR/G Protein; Neuronal Signaling
<b>Storage:</b>	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 50 mg/mL (98.72 mM; Need ultrasonic)					
	H <sub>2</sub> O : 2 mg/mL (3.95 mM; Need ultrasonic)					
	<b>Preparing Stock Solutions</b>	<b>Solvent</b>	<b>Mass</b>	<b>1 mg</b>	<b>5 mg</b>	<b>10 mg</b>
		<b>Concentration</b>				
		<b>1 mM</b>		1.9745 mL	9.8723 mL	19.7445 mL
<b>5 mM</b>			0.3949 mL	1.9745 mL	3.9489 mL	
	<b>10 mM</b>		0.1974 mL	0.9872 mL	1.9745 mL	
Please refer to the solubility information to select the appropriate solvent.						
<b>In Vivo</b>	1. 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					
	2. 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					
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (4.94 mM); Clear solution					

### BIOLOGICAL ACTIVITY

<b>Description</b>	Nefazodone hydrochloride (BMY-13754) is a potent and selective 5HT <sub>2A</sub> (K <sub>i</sub> =5.8 nM) antagonist with moderate inhibition of 5-HT and noradrenaline uptake (IC <sub>50</sub> of 290 and 300 nM, respectively). Nefazodone hydrochloride is a phenylpiperazine antidepressant with less alpha-adrenergic blocking activity <sup>[1][2]</sup> .	
<b>IC<sub>50</sub> &amp; Target</b>	5-HT <sub>2A</sub> Receptor 5.8 nM (K <sub>i</sub> )	α <sub>1</sub> -adrenergic receptor
<b>In Vitro</b>	Nefazodone hydrochloride (BMY-13754) is a phenylpiperazine antidepressant with a mechanism of action that is distinct	

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from those of other currently available drugs. Nefazodone hydrochloride potently and selectively blocks postsynaptic serotonin (5-hydroxytryptamine; 5-HT) 5-HT<sub>2A</sub> receptors and moderately inhibits serotonin and noradrenaline (norepinephrine) reuptake. Nefazodone hydrochloride is also an inhibitor of the hepatic P-450 isoenzyme CYP3A4<sup>[2]</sup>. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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## CUSTOMER VALIDATION

- Biotechnol Bioeng. 2021 Sep 3.

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## 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.

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

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