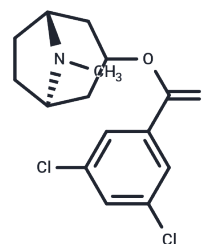


## Bemesetron

## Chemical Properties

CAS No. : 40796-97-2  
 Formula: C<sub>15</sub>H<sub>17</sub>Cl<sub>2</sub>NO<sub>2</sub>  
 Molecular Weight: 314.21  
 Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year  
 Actual storage temperature shall be subject to the COA.



## Biological Description

Description	Bemesetron (MDL 72222) is a selective 5-HT <sub>3</sub> antagonist (IC <sub>50</sub> = 0.33 nM) that exhibits neuroprotective effects.
Targets(IC <sub>50</sub> )	5-HT Receptor
In vitro	In primary cortical neuronal cells, Bemesetron (1 μM) significantly blocks the H <sub>2</sub> O <sub>2</sub> -induced increase of caspase-3 immunoreactivity. Bemesetron (0.01, 0.1 and 1 μM) and Y25130 (0.05, 0.5 and 5 μM) concentration-dependently reduce the H <sub>2</sub> O <sub>2</sub> -induced decrease showing inhibition of 74.9 and 79.0% with 1 μM and 5 μM, respectively[2].
In vivo	In male adult albino mice, Bemesetron (1 mg/kg; i.p.) causes a significant reduction of catalepsy, while Bemesetron (10 mg/kg; i.p.) significantly potentiates the phenomenon. The maximum inhibition of catalepsy (about 75%) occurs at 120 min, and the maximum potentiation (about 4.5-times the control value) occurs at 60 min after Haloperidol[3].

## Solubility Information

Solubility	DMSO: 2 mg/mL (6.37 mM), Sonication is recommended. ( < 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	3.1826 mL	15.9129 mL	31.8258 mL
5 mM	0.6365 mL	3.1826 mL	6.3652 mL
10 mM	0.3183 mL	1.5913 mL	3.1826 mL
50 mM	0.0637 mL	0.3183 mL	0.6365 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Peters JA, et al. An electrophysiological investigation of the properties of 5-HT<sub>3</sub> receptors of rabbit nodose ganglion neurones in culture. *Br J Pharmacol.* 1993 Oct;110(2):665-76.

Lee HJ, et al. Blockade of 5-HT<sub>3</sub> receptor with MDL7222 and Y25130 reduces hydrogen peroxide-induced neurotoxicity in cultured rat cortical cells. *Life Sci.* 2005 Dec 5;78(3):294-300.

Silva SR, et al. Effects of 5-HT<sub>3</sub> receptor antagonists on neuroleptic-induced catalepsy in mice. *Neuropharmacology.* 1995 Jan;34(1):97-9.

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