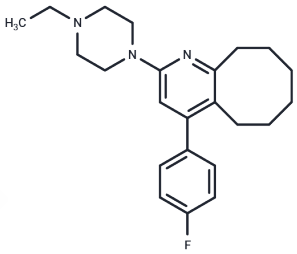
Data Sheet (Cat.No.T1180)

TargetMol

Blonanserin

Chemical Properties



CAS No. : 132810-10-7

Formula: C23H30FN3

Molecular Weight: 367.50

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	Blonanserin (AD-5423) is an atypical antipsychotic approved in Japan in January, 2008. Relative to many other antipsychotics, blonanserin has an improved tolerability profile, lacking side effects such as extrapyramidal symptoms, excessive sedation, or hypotension.
Targets(IC50)	5-HT Receptor,Adrenergic Receptor,Dopamine Receptor,Sigma receptor
In vitro	In tests of atypical antipsychotics (risperidone, olanzapine, and aripiprazole), Blonanserin showed the most potent binding affinity for human D3 receptors. Blonanserin transiently increased neuronal firing in the nucleus of the pallidum and ventral tegmental area, but not in the nucleus medius dorsalis or the medial dorsal nucleus of the thalamus, whereas risperidone increased firing in the nucleus ventral tegmental area and in the nucleus medius dorsalis but not in the nucleus dorsalis. in the medial dorsal nucleus of the rat thalamus. Blonanserin consistently increased additional extracellular levels of norepinephrine and dopamine but not serotonin, GABA, or glutamate, whereas risperidone consistently increased levels of norepinephrine, dopamine, and serotonin but not GABA or glutamate.Blonanserin increased the efflux of cortical DA and its metabolites, homovanillic acid and 3,4-dihydroxy Phenylacetic acid.
In vivo	In tests of atypical antipsychotics (risperidone, olanzapine, and aripiprazole), Blonanserin showed the most potent binding affinity for human D3 receptors. Blonanserin transiently increased neuronal firing in the nucleus of the pallidum and ventral tegmental area, but not in the nucleus medius dorsalis or the medial dorsal nucleus of the thalamus, whereas risperidone increased firing in the nucleus ventral tegmental area and in the nucleus medius dorsalis but not in the nucleus dorsalis. in the medial dorsal nucleus of the rat thalamus. Blonanserin consistently increased additional extracellular levels of norepinephrine and dopamine but not serotonin, GABA, or glutamate, whereas risperidone consistently increased levels of norepinephrine, dopamine, and serotonin but not GABA or glutamate.Blonanserin increased the efflux of cortical DA and its metabolites, homovanillic acid and 3,4-dihydroxy Phenylacetic acid.

Solubility Information

Solubility	DMSO: 14.29 mg/mL (38.88 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 1.00 mg/mL (2.72 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7211 mL	13.6054 mL	27.2109 mL
5 mM	0.5442 mL	2.7211 mL	5.4422 mL
10 mM	0.2721 mL	1.3605 mL	2.7211 mL
50 mM	0.0544 mL	0.2721 mL	0.5442 mL

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

Ohoyama K, et al. Eur J Pharmacol,2011, 653(1-3), 47-57.
Huang M, et al. J Neurochem,2014, 128(6), 938-949.
Baba S, et al. J Pharmacol Sci,2015, 127(3), 326-331.
Inoue T, et al. Prog Neuropsychopharmacol Biol Psychiatry,2012, 39(1), 156-162.
Horiguchi M, et al. Behav Brain Res,2013, 247, 158-164.