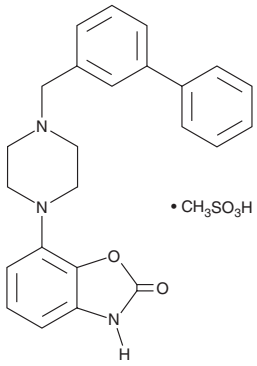
PRODUCT INFORMATION

Bifeprunox (mesylate)

Item No. 29523

CAS Registry No.:	350992-13-1
Formal Name:	7-[4-([1,1′-biphenyl]-3-ylmethyl)-1-piperazinyl]-2(3H)-benzoxazolone, monomethanesulfonate
Synonym:	DU 127090
MF:	$C_{24}H_{23}N_3O_2 \bullet CH_3SO_3H$
FW:	481.6
Purity:	≥98%
UV/Vis.:	λ_{max}: 248 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Bifeprunox (mesylate) is supplied as a crystalline solid. A stock solution may be made by dissolving the bifeprunox (mesylate) in the solvent of choice, which should be purged with an inert gas. Bifeprunox (mesylate) is soluble in the organic solvent DMSO.

Description

Bifeprunox is an atypical antipsychotic.[1] It is a dopamine D_2 receptor partial agonist and an agonist of the serotonin (5-HT) receptor subtype 5-HT_{1A} (K_is = 2.2 and 9.3 nM, respectively).[2,3] Bifeprunox inhibits apomorphine-induced climbing behavior in mice (ED_{50} = 0.1 mg/kg) and the conditioned avoidance response in rats (ED_{50} = 0.8 mg/kg).[2] It decreases basal prepulse inhibition of the acoustic startle response in rats by 42% when administered at a dose of 10 mg/kg.[3]

References

1. Wadenberg, M.-L.G. Bifeprunox: A novel antipsychotic agent with partial agonist properties at dopamine D2 and serotonin 5-HT_{1A} receptors. *Future Neurol.* **2(2),** 153-165 (2007).
2. Feenstra, R.W., de Moes, J., Hofma, J.J., *et al.* New 1-aryl-4-(biarylmethylene)piperazines as potential atypical antipsychotics sharing dopamine D_2-receptor and serotonin 5-HT_{1A}-receptor affinities. *Bioorg. Med. Chem. Lett.* **11(17),** 2345-2349 (2001).
3. Auclair, A.L., Galinier, A., Besnard, J., *et al.* Putative antipsychotics with pronounced agonism at serotonin 5-HT1A and partial agonist activity at dopamine D2 receptors disrupt basal PPI of the startle reflex in rats. *Psychopharmacol. (Berl).* **193(1),** 45-54 (2007).

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