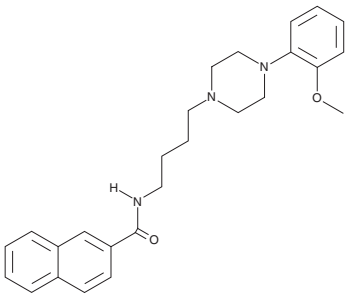
PRODUCT INFORMATION

BP-897

Item No. 25831

CAS Registry No.:	314776-92-6
Formal Name:	N-[4-[4-(2-methoxyphenyl)-1-piperazinyl] butyl]-2-naphthalenecarboxamide, monohydrochloride
MF:	$C_{26}H_{31}N_3O_2$ • HCl
FW:	454.0
Purity:	≥98%
UV/Vis.:	λ_{max}: 232, 281 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

BP-897 is supplied as a crystalline solid. A stock solution may be made by dissolving the BP-897 in the solvent of choice, which should be purged with an inert gas. BP-897 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of BP-897 in ethanol and DMSO is approximately 2 mg/ml and approximately 5 mg/ml in DMF.

BP-897 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, BP-897 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. BP-897 has a solubility of approximately 0.3 mg/ml in a 1:2 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

BP-897 is a dopamine D_3 receptor partial agonist.[1] It selectively binds to the dopamine D_3 over the D_2, D_1, and D_4 receptors (K_is = 0.92, 61, 3,000, and 300 nM, respectively, for the recombinant human receptors). It is also selective over α_1- and α_2-adrenergic receptors (K_is = 60 and 83 nM, respectively) and the serotonin (5-HT) receptor subtypes 5-HT_{1A} and 5-HT_7 (K_is = 84 and 345 nM, respectively), as well as muscarinic, histamine, and opioid receptors (K_is = >1 µM for all). BP-897 inhibits cAMP accumulation induced by forskolin (EC_{50} = 1 nM) and increases mitogenesis in NG 108-15 cells with a maximum efficacy of 55%, an effect that can be blocked by the dopamine D_3 receptor antagonist nafadotride. It also acts as a dopamine D_3 receptor antagonist, failing to increase [^{35}S]GTPγS binding to CHO cell membranes expressing the recombinant human D_3 receptor and inhibiting the effect of dopamine in the same assay (IC_{50} = 416.87 nM).[2] BP-897 (0.5 and 1 mg/kg) reduces cocaine-seeking behavior, but has no reinforcing properties itself, in rats trained to self-administer cocaine.[1]

References

1. Pilla, M., Perachon, S., Sautel, F., *et al.* Selective inhibition of cocaine-seeking behaviour by a partial dopamine D3 receptor agonist. *Nature* **400(6742),** 371-375 (1999).
2. Wicke, K. and Garcia-Ladona, J. The dopamine D3 receptor partial agonist, BP 897, is an antagonist at human dopamine D3 receptors and at rat somatodendritic dopamine D3 receptors. *Eur. J. Pharmacol.* **424(2),** 85-90 (2001).

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