

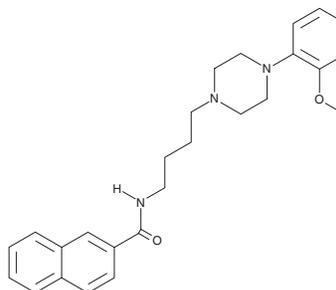
# PRODUCT INFORMATION



## 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<sub>26</sub>H<sub>31</sub>N<sub>3</sub>O<sub>2</sub> • HCl  
**FW:** 454.0  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 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<sub>3</sub> receptor partial agonist.<sup>1</sup> It selectively binds to the dopamine D<sub>3</sub> over the D<sub>2</sub>, D<sub>1</sub>, and D<sub>4</sub> receptors (K<sub>i</sub>s = 0.92, 61, 3,000, and 300 nM, respectively, for the recombinant human receptors). It is also selective over α<sub>1</sub>- and α<sub>2</sub>-adrenergic receptors (K<sub>i</sub>s = 60 and 83 nM, respectively) and the serotonin (5-HT) receptor subtypes 5-HT<sub>1A</sub> and 5-HT<sub>7</sub> (K<sub>i</sub>s = 84 and 345 nM, respectively), as well as muscarinic, histamine, and opioid receptors (K<sub>i</sub>s = >1 μM for all). BP-897 inhibits cAMP accumulation induced by forskolin (EC<sub>50</sub> = 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<sub>3</sub> receptor antagonist nafadotride. It also acts as a dopamine D<sub>3</sub> receptor antagonist, failing to increase [<sup>35</sup>S]GTPγS binding to CHO cell membranes expressing the recombinant human D<sub>3</sub> receptor and inhibiting the effect of dopamine in the same assay (IC<sub>50</sub> = 416.87 nM).<sup>2</sup> 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.<sup>1</sup>

### 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).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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