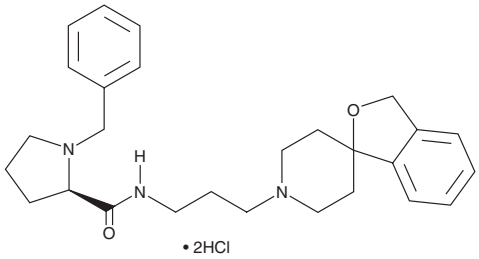
PRODUCT INFORMATION

BAN ORL 24 (hydrochloride)

Item No. 29485

CAS Registry No.: 1401463-54-4
Formal Name: 1-(phenylmethyl)-N-[3-(spiro[isobenzofuran-1(3H),4′-piperidin]-1′-yl)propyl]-2-pyrrolidinecarboxamide, dihydrochloride
MF: $C_{27}H_{35}N_3O_2 \bullet 2HCl$
FW: 506.5
Purity: ≥95%
Supplied as: A 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

BAN ORL 24 (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the BAN ORL 24 (hydrochloride) in the solvent of choice, which should be purged with an inert gas. BAN ORL 24 (hydrochloride) is soluble in the organic solvent DMSO. It is also soluble in water. We do not recommend storing the aqueous solution for more than one day.

Description

BAN ORL 24 is an antagonist of the nociceptin (NOP) receptor (K_i = 0.24 nM in a radioligand binding assay using CHO cell membranes expressing the human receptor).[1] It is selective for NOP receptors over μ-, δ-, and κ-opioid receptors (K_is = 0.19, 0.34, and >1 μM, respectively). BAN ORL 24 reduces NOP-induced GTPγS binding (pA_2 = 9.98) and calcium mobilization (K_B = 0.93 nM) in CHO cells. It inhibits electrically induced twitches in isolated mouse and rat vas deferens, as well as isolated guinea pig ileum, when used at a concentration of 100 nM. BAN ORL 24 (10 mg/kg) reverses thermal and mechanical antinociceptive activities induced by the dual agonist of μ-opioid and NOP receptors BPR1M97 in mice.[2]

References

1. Fischetti, C., Camarda, V., Rizzi, A., *et al*. Pharmacological characterization of the nociceptin/orphanin FQ receptor non peptide antagonist Compound 24. *Eur. J. Pharmacol.* **614(1-3)**, 50-57 (2009).
2. Chao, P.-K., Chang, H.-F., Chang, W.-T., *et al*. BPR1M97, a dual mu opioid receptor/nociceptin-orphanin FQ peptide receptor agonist, produces potent antinociceptive effects with safer properties than morphine. *Neuropharmacology* **166**, 107678 (2020).

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