

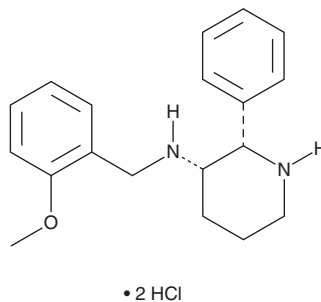
# PRODUCT INFORMATION



## CP 99,994 (hydrochloride)

Item No. 27669

**CAS Registry No.:** 145148-39-6  
**Formal Name:** (2S,3S)-N-[(2-methoxyphenyl)methyl]-2-phenyl-3-piperidinamine, dihydrochloride  
**MF:** C<sub>19</sub>H<sub>24</sub>N<sub>2</sub>O • 2HCl  
**FW:** 369.3  
**Purity:** ≥98%  
**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

CP 99,994 (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the CP 99,994 (hydrochloride) in the solvent of choice, which should be purged with an inert gas. CP 99,994 (hydrochloride) is soluble in organic solvents such as DMSO. It is also soluble in water. The solubility of CP 99,994 (hydrochloride) in DMSO and water is approximately 50 and 100 mM, respectively. We do not recommend storing the aqueous solution for more than one day.

### Description

CP 99,994 is a nonpeptide neurokinin-1 (NK<sub>1</sub>) receptor antagonist (K<sub>i</sub> = 0.25 nM in a radioligand binding assay).<sup>1</sup> It is selective for NK<sub>1</sub> over NK<sub>2</sub> and NK<sub>3</sub> receptors (K<sub>i</sub>s = >10 μM for both) as well as dopamine D<sub>1</sub> and D<sub>2</sub>, α<sub>1</sub>-, α<sub>2</sub>- and β-adrenergic, serotonin, histamine H<sub>1</sub>, muscarinic and nicotinic acetylcholine, μ-opioid, glutamate, benzodiazepine, and γ-aminobutyric acid (GABA) receptors (IC<sub>50</sub>s = >1 μM for all). *In vitro*, CP 99,994 inhibits excitation of guinea pig locus coeruleus cells induced by substance P (Item No. 24035; IC<sub>50</sub> = 25 nM). It inhibits increases in horizontal locomotor activity induced by the NK<sub>1</sub> agonist [Sar<sup>9</sup>,Met(O<sub>2</sub>)<sup>11</sup>]-substance P in guinea pigs (ID<sub>50</sub> = 0.59 mg/kg). CP 99,994 inhibits aerosolized capsaicin-induced plasma extravasation in guinea pig lung (ID<sub>50</sub> = 4 mg/kg). It exhibits anti-emetic effects in ferret models of emesis induced by copper sulfate, loperamide, or cisplatin (Item No. 13119) when administered at doses of 0.3 and 1 mg/kg.<sup>2</sup>

### References

- McLean, S., Ganong, A., Seymour, P.A., *et al.* Pharmacology of CP-99,994; a nonpeptide antagonist of the tachykinin neurokinin-1 receptor. *J. Pharmacol. Exp. Ther.* **267**(1), 472-479 (1993).
- Watson, J.W., Gonsalves, S.F., Fossa, A.A., *et al.* The anti-emetic effects of CP-99,994 in the ferret and the dog: Role of the NK<sub>1</sub> receptor. *Br. J. Pharmacol.* **115**(1), 84-94 (1995).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 10/27/2022

#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM