

PRODUCT INFORMATION



CM699 (hydrochloride)

Item No. 43519

Formal Name: 1,3-dihydro-1-methyl-3-[4-(spiro[isobenzofuran-1(3H),4'-piperidin]-1'-yl)butyl]-2H-benzimidazol-2-one, monohydrochloride

MF: C₂₄H₂₉N₃O₂ • HCl

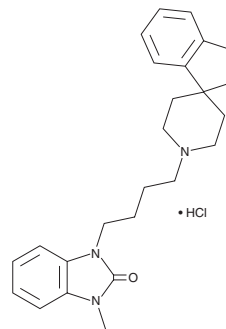
FW: 428.0

Purity: ≥98%

Supplied as: A neat 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

CM699 (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the CM699 (hydrochloride) in the solvent of choice, which should be purged with an inert gas. CM699 (hydrochloride) is soluble (≥10 mg/ml) in ethanol and DMSO.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of CM699 (hydrochloride) can be prepared by directly dissolving the solid in aqueous buffers. CM699 (hydrochloride) is sparingly soluble (1-10 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

CM699 is a dual σ receptor antagonist (K_{iS} = 0.0141 and 0.00231 μ M for the σ_1 and σ_2 receptors, respectively) and dopamine transporter (DAT) inhibitor (K_i = 0.311 μ M).¹ It is selective for the σ_1 and σ_2 receptors and DAT over the serotonin transporter (SERT; K_i = 2.83 μ M) but also binds to the norepinephrine transporter (NET; K_i = 0.232 μ M). CM699 inhibits dopamine uptake in rat striatal synaptosomes (IC_{50} = 6.01 μ M) and induces σ_1 receptor multimerization, indicating antagonist activity, in HEK293 cells expressing the human receptor when used at a concentration of 20 μ M. *In vivo*, CM699 decreases self-administration of cocaine in rats.

Reference

1. Hiranita, T., Hong, W.C., Sharma, A., *et al.* Preclinical profile of CM699 as a medication candidate for stimulant use disorder. *ACS Chem. Neurosci.* **16**(8), 1454-1468 (2025).

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

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