

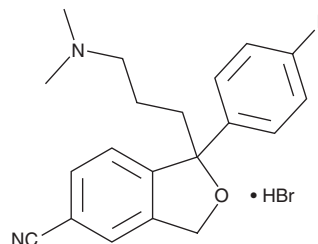
PRODUCT INFORMATION



Citalopram (hydrobromide)

Item No. 14572

CAS Registry No.: 59729-32-7
Formal Name: 1-[3-(dimethylamino)propyl]-1-(4-fluorophenyl)-1,3-dihydro-5-isobenzofurancarbonitrile, monohydrobromide
Synonyms: Bonitrile, Lu 10-171B, Nitalapram, Prepram
MF: C₂₀H₂₁FN₂O • HBr
FW: 405.3
Purity: ≥98%
UV/Vis.: 204, 238 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

Citalopram (hydrobromide) is supplied as a crystalline solid. A stock solution may be made by dissolving the citalopram (hydrobromide) in the solvent of choice, which should be purged with an inert gas. Citalopram (hydrobromide) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of citalopram (hydrobromide) in these solvents is approximately 1, 30, and 30 mg/ml, respectively.

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 citalopram (hydrobromide) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of citalopram (hydrobromide) in PBS (pH 7.2) is approximately 2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Citalopram is a selective serotonin (5-HT) reuptake inhibitor (SSRI) with an IC₅₀ value of 1.8 nM for 5-HT reuptake in rat brain synaptosomes.¹ It is selective for 5-HT reuptake over that of dopamine and norepinephrine (IC₅₀s = >6 mM). Citalopram potentiates headweaving and tremor induced by 5-hydroxy-L-tryptophan (Item No. 20539) in mice (ED₅₀s = 0.61 and 0.66 mmol/kg, respectively). It also acts as an antagonist of nicotinic acetylcholine receptors (IC₅₀ = 0.93 μM).² Formulations containing citalopram have been used to treat depression. This product is also available as an analytical reference standard (Item No. 23252).

References

1. Hyttel, J., Bøgesø, K.P., Perregaard, J., *et al.* The pharmacological effect of citalopram residues in the (S)-(+)-enantiomer. *J. Neural Transm. Gen. Sect.* **88(2)**, 157-160 (1992).
2. Shytle, R.D., Silver, A.A., Lukas, R.J., *et al.* Nicotinic acetylcholine receptors as targets for antidepressants. *Mol. Psychiatry* **7(6)**, 525-535 (2002).

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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