

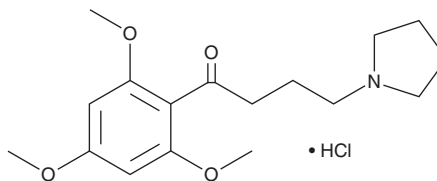
PRODUCT INFORMATION



Buflomedil (hydrochloride)

Item No. 31184

CAS Registry No.: 35543-24-9
Formal Name: 4-(1-pyrrolidiny)-1-(2,4,6-trimethoxyphenyl)-1-butanone, monohydrochloride
Synonym: LL-1656
MF: C₁₇H₂₅NO₄ • HCl
FW: 343.9
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

Buflomedil (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the buflomedil (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Buflomedil (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of buflomedil (hydrochloride) in ethanol and DMF is approximately 3 mg/ml and approximately 2 mg/ml in 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 buflomedil (hydrochloride) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of buflomedil (hydrochloride) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Buflomedil is a non-selective antagonist of α -adrenergic receptors (α -ARs) and vasoactive compound.¹⁻⁴ It binds to rat α_{1A} - and α_{1B} -ARs (K_i s = 4.06 and 6.84 μ M, respectively) and human platelet α_2 -ARs (IC_{50} = 1 μ M) in radioligand binding assays.^{1,2} Buflomedil (0.06-60 μ M) inhibits contraction of isolated canine saphenous veins induced by phenylephrine, clonidine (Item No. 15949), sympathetic nerve stimulation, or norepinephrine.³ It inhibits ADP-, collagen-, or epinephrine-induced aggregation of isolated human platelets when used at a concentration of 100 μ M.² Buflomedil (10 mg/kg) reduces hippocampal neuronal cell death in a rat model of carotid clamping-induced ischemia-reperfusion injury.⁴

References

1. Tang, L.-M., Cheng, J.T., Tong, Y.-C. Inhibitory effect of buflomedil on prostate α_{1A} adrenoceptor in the Wistar rat. *Neurosci. Lett.* **367(2)**, 224-227 (2004).
2. Ryckewaert, J.J., Maurel, A., Marguerie, G. In vitro studies of the effect of buflomedil on platelet responsiveness. *Haemostasis.* **20(3)**, 181-191 (1990).
3. Clissold, S.P., Lynch, S., Sorkin, E.M. Buflomedil. A review of its pharmacodynamic and pharmacokinetic properties, and therapeutic efficacy in peripheral and cerebral vascular diseases. *Drugs.* **33(5)**, 430-460 (1987).
4. Briguglio, F.S., Mondello, M.R., Galluzzo, M., et al. Protective effect of buflomedil in a rat model of moderate cerebral ischemia. *Arzneimittelforschung.* **55(8)**, 437-442 (2005).

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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