

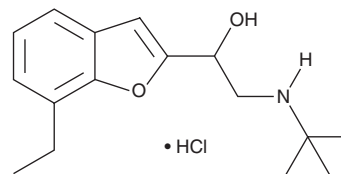
PRODUCT INFORMATION



Bufuralol (hydrochloride)

Item No. 17794

CAS Registry No.: 60398-91-6
Formal Name: α -[[[(1,1-dimethylethyl)amino]methyl]-7-ethyl-2-benzofuranmethanol, monohydrochloride
Synonyms: (\pm)-Bufuralol, DL-Bufuralol, Ro 3-4787
MF: $C_{16}H_{23}NO_2 \cdot HCl$
FW: 297.8
Purity: $\geq 95\%$
UV/Vis.: λ_{max} : 209, 248 nm
Supplied as: A crystalline solid
Storage: $-20^{\circ}C$
Stability: ≥ 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Bufuralol (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the bufuralol (hydrochloride) in the solvent of choice. Bufuralol (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of bufuralol (hydrochloride) in ethanol and DMF is approximately 15 mg/ml and approximately 10 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 bufuralol (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of bufuralol (hydrochloride) in PBS, pH 7.2, is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Bufuralol is a non-selective antagonist of β -adrenergic receptors (β -ARs) that also has partial agonist activity.¹⁻³ It decreases mean arterial blood pressure and increases abdominal aortic blood flow in anesthetized cats when administered intravenously at doses of 0.3 and 1 mg/kg.³ Bufuralol is hydroxylated at the 1' position by the cytochrome P450 (CYP) isoform CYP2D6 and has been used as a substrate to measure CYP2D6 activity.^{1,4,5,6}

References

1. Narimatsu, S., Takemi, C., Kuramoto, S., *et al.* *Chirality* **15(4)**, 333-339 (2003).
2. Pringle, T.H., Francis, R.J., East, P.B., *et al.* *Br. J. Clin. Pharmacol.* **22**, 527-534 (1986).
3. Blaber, L.C., Burden, D.T., Eigenmann, R., *et al.* *J. Cardiovasc. Pharmacol.* **6(1)**, 165-175 (1984).
4. Yamazaki, H., Guo, Z., Persmark, M., *et al.* *Mol. Pharmacol.* **46(3)**, 568-577 (1994).
5. Paine, M.J.I., Gilham, D., Roberts, G.C.K., *et al.* *Arch. Biochem. Biophys.* **328(1)**, 143-150 (1996).
6. Chen, N., Cui, D., Wang, Q., *et al.* *Xenobiotica* **48(6)**, 637-646 (2018).

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, 02/15/2024

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