

PRODUCT INFORMATION



N-Desethylamiodarone (hydrochloride)

Item No. 9000537

CAS Registry No.: 96027-74-6
Formal Name: (2-butyl-3-benzofuranyl)
[4-[2-(ethylamino)ethoxy]-3,5-
diiodophenyl]-methanone,
monohydrochloride

MF: C₂₃H₂₅I₂NO₃ • HCl
FW: 653.7

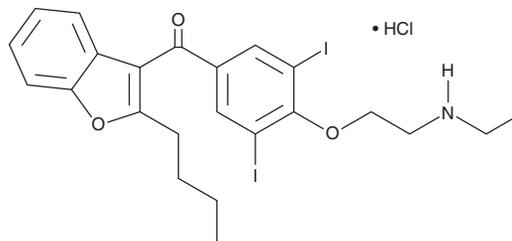
Purity: ≥95%

UV/Vis.: λ_{max}: 242 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

N-Desethylamiodarone (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the N-desethylamiodarone (hydrochloride) in the solvent of choice. N-Desethylamiodarone (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 N-desethylamiodarone (hydrochloride) in ethanol is approximately 5 mg/ml and approximately 10 mg/ml in DMSO and DMF.

N-Desethylamiodarone (hydrochloride) is sparingly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

Amiodarone (Item No. 15213) is a class III antiarrhythmic agent, in that it prolongs both cardiac action potential and refractoriness by blocking potassium currents.¹ It inhibits the voltage-gated potassium channel hERG, also known as KCNH2, with an IC₅₀ value of 1 μM.² In humans, cytochrome P450 3A is involved in the metabolism of amiodarone.³ N-Desethylamiodarone is the major, active metabolite of amiodarone. This compound has been used as an analytical reference standard for quantifying amiodarone in plasma samples.⁴

References

1. Campbell, T.J. and Williams, K.M. Therapeutic drug monitoring: Antiarrhythmic drugs. *Br. J. Clin. Pharmacol.* **46**, 307-319 (1998).
2. Sinha, N. and Sen, S. Predicting hERG activities of compounds from their 3D structures: Development and evaluation of a global descriptors based QSAR model. *Eur. J. Med. Chem.* **46(2)**, 618-630 (2011).
3. Shayeganpour, A., El-Kadi, A.O.S., and Brocks, D.R. Determination of the enzyme(s) involved in the metabolism of amiodarone in liver and intestine of rat: The contribution of cytochrome P450 3A isoforms. *Drug Metab. Dispos.* **34(1)**, 43-50 (2006).
4. Pérez-Ruiz, T., Martknez-Lozano, C., and Garça-Martknez, M.D. Simultaneous determination of amiodarone and its metabolite desethylamiodarone by high-performance liquid chromatography with chemiluminescent detection. *Anal. Chim. Acta* **623(1)**, 89-95 (2008).

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, 04/10/2024

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