

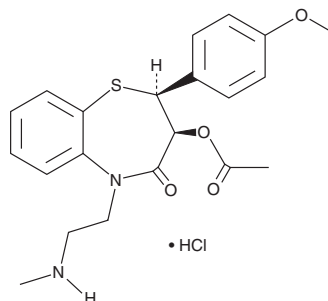
PRODUCT INFORMATION



N-desmethyl Diltiazem (hydrochloride)

Item No. 34977

CAS Registry No.: 130606-60-9
Formal Name: 3-(acetyloxy)-2,3-dihydro-2-(4-methoxyphenyl)-5-[2-(methylamino)ethyl]-1,5-benzothiazepin-4(5H)-one, monohydrochloride
MF: $C_{21}H_{24}N_2O_4S \cdot HCl$
FW: 437.0
Purity: $\geq 90\%$
Supplied as: A 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

N-desmethyl Diltiazem (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the N-desmethyl diltiazem (hydrochloride) in the solvent of choice, which should be purged with an inert gas. N-desmethyl Diltiazem (hydrochloride) is soluble in DMSO and chloroform.

Description

N-desmethyl Diltiazem is an active metabolite of the calcium channel inhibitor diltiazem.¹ It is formed from diltiazem by the cytochrome P450 (CYP) isoforms CYP3A4, CYP3A5, and CYP3A7.² N-desmethyl Diltiazem binds to isolated rat cerebral cortex homogenates ($IC_{50} = 323$ nM) and inhibits spontaneous contractions in isolated rat portal veins ($IC_{50} = 489$ nM).¹ It has been found as a contaminant in fresh water.³

References

1. Schoemaker, H., Hicks, P.E., and Langer, S.Z. Calcium channel receptor binding studies for diltiazem and its major metabolites: Functional correlation to inhibition of portal vein myogenic activity. *J. Cardiovasc. Pharmacol.* **9(2)**, 173-180 (1987).
2. Williams, J.A., Ring, B.J., Cantrell, V.E., et al. Comparative metabolic capabilities of CYP3A4, CYP3A5, and CYP3A7. *Drug Metab. Dispos.* **30(8)**, 883-891 (2002).
3. Marshall, M.M. and McCluney, K.E. Mixtures of co-occurring chemicals in freshwater systems across the continental US. *Environ. Pollut.* **268(Pt. B)**, 115793 (2021).

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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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