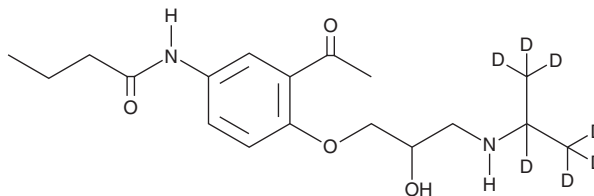


PRODUCT INFORMATION



Acebutolol-d₇ Item No. 35557

CAS Registry No.: 2701782-36-5
Formal Name: N-[3-acetyl-4-[2-hydroxy-3-[(1-methylethyl-d₇)amino]propoxy]phenyl]-butanamide
MF: C₁₈H₂₁D₇N₂O₄
FW: 343.5
Chemical Purity: ≥98% (Acebutolol)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₇); ≤1% d₀
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

Acebutolol-d₇ is intended for use as an internal standard for the quantification of acebutolol by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Acebutolol-d₇ is supplied as a solid. A stock solution may be made by dissolving the acebutolol-d₇ in the solvent of choice, which should be purged with an inert gas. Acebutolol-d₇ is slightly soluble in chloroform and methanol.

Description

Acebutolol is an antagonist of β_1 -adrenergic receptors (β_1 -ARs; $K_i = 125$ nM).¹ It is selective for β_1 - over β_2 -ARs ($K_i = 7,070$ nM). *In vivo*, acebutolol decreases isoprenaline-induced tachycardia and diastolic hypotension in cats ($ED_{50} = 0.09$ mg/kg for both).² Acebutolol (12.5, 25, and 50 mg/kg) inhibits ouabain-induced arrhythmias in rabbits, as well as protects against chloroform-induced ventricular fibrillation in mice ($ED_{50} = 0.067$ mg/kg).³ Formulations containing acebutolol have been used in the treatment of angina and irregular heartbeat.

References

1. Tsuchihashi, H., Nakashima, Y., Kinami, J., *et al.* Characteristics of ¹²⁵I-iodocyanopindolol binding to β -adrenergic and serotonin-1B receptors of rat brain: Selectivity of β -adrenergic agents. *Jpn. J. Pharmacol.* **52**(2), 195-200 (1990).
2. Basil, B., Jordan, R., Loveless, A.H., *et al.* β -Adrenoceptor blocking properties and cardioselectivity of M & B 17,803A. *Br. J. Pharmacol.* **48**(2), 198-211 (1973).
3. Basil, B., Jordan, R., Loveless, A.H., *et al.* A comparison of the experimental anti-arrhythmic properties of acebutolol (M and B 17,803), propranolol and practolol. *Br. J. Pharmacol.* **50**(3), 323-333 (1974).

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, 04/25/2024

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