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Diagnostik & molekulare Diagnostik



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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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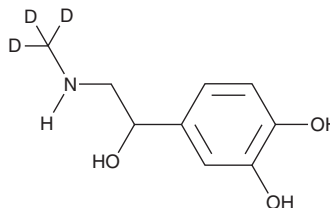
PRODUCT INFORMATION



(±)-Epinephrine-d₃

Item No. 40434

CAS Registry No.: 1189977-29-4
Formal Name: 4-[1-hydroxy-2-(methyl-d₃ amino) ethyl]-1,2-benzenediol
Synonyms: (±)-Adrenaline-d₃, DL-Adrenaline-d₃, DL-Epinephrine-d₃
MF: C₉H₁₀D₃NO₃
FW: 186.2
Chemical Purity: ≥98% ((±)-Epinephrine)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₃); ≤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

(±)-Epinephrine-d₃ is intended for use as an internal standard for the quantification of (±)-epinephrine (Item No. 21245) 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).

(±)-Epinephrine-d₃ is supplied as a solid. A stock solution may be made by dissolving the (±)-epinephrine-d₃ in water. We do not recommend storing the aqueous solution for more than one day.

Description

(±)-Epinephrine is a natural neurotransmitter that is released from the adrenal medulla and activates adrenoceptors (K_is = 15, 735, and 3,970 nM for α_{1A}-, β₂-, and β₁-adrenergic receptors, respectively).¹⁻³ Through these receptors, (±)-epinephrine may induce either contraction or relaxation of vascular smooth muscle, depending on adrenoceptor subtype expression.³ Formulations containing (±)-epinephrine have been used in the emergency treatment of severe allergic reactions and the induction and maintenance of mydriasis during intraocular surgery.

References

1. Rothman, R.B., Vu, N., Partilla, J.S., *et al.* In vitro characterization of ephedrine-related stereoisomers at biogenic amine transporters and the receptorome reveals selective actions as norepinephrine transporter substrates. *J. Pharmacol. Exp. Ther.* **307**(1), 138-145 (2003).
2. Hoffmann, C., Leitz, M.R., Oberdorf-Maass, S., *et al.* Comparative pharmacology of human β-adrenergic receptor subtypes—characterization of stably transfected receptors in CHO cells. *N.-S. Arch. Pharmacol.* **369**(2), 151-159 (2004).
3. Ahles, A. and Englehardt, S. Polymorphic variants of adrenoceptors: Pharmacology, physiology, and role in disease. *Pharmacol. Rev.* **66**(3), 598-637 (2014).

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.

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