

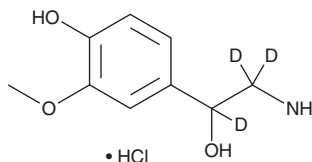
PRODUCT INFORMATION



Normetanephrine-d₃ (hydrochloride)

Item No. 45577

CAS Registry No.: 1085333-97-6
Formal Name: α-(aminomethyl-d₂)-4-hydroxy-3-methoxy-benzenemethan-d-ol, monohydrochloride
Synonyms: NMN-d₃, DL-Normetanephrine-d₃, (±)-Normetadrenaline-d₃, α-(aminomethyl)Vanillyl Alcohol-d₃
MF: C₉H₁₀D₃NO₃ • HCl
FW: 222.7
Chemical Purity: ≥98% (Normetanephrine)
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

Normetanephrine-d₃ (hydrochloride) is intended for use as an internal standard for the quantification of normetanephrine (Item No. 38792) 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).

Normetanephrine-d₃ (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the normetanephrine-d₃ (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Normetanephrine-d₃ (hydrochloride) is soluble in DMSO.

Description

Normetanephrine is an active metabolite of norepinephrine.¹⁻³ It is formed from norepinephrine by catechol-O-methyltransferase (COMT).¹ Normetanephrine induces contractions in isolated rabbit aortic strips in a concentration-dependent manner.² It inhibits norepinephrine uptake in isolated rat heart (IC₅₀ = 200 μM).³ Plasma levels of normetanephrine are increased in patients with von Hippel-Lindau disease and pheochromocytomas compared with patients with von Hippel-Lindau disease without pheochromocytomas.⁴ It has been used as a marker of authentic human urine specimens.⁵

References

1. Goldstein, D.S., Eisenhofer, G., and Kopin, I.J. Sources and significance of plasma levels of catechols and their metabolites in humans. *J. Pharm. Exp. Ther.* **305**(3), 800-811 (2003).
2. Pruss, P., Maengwyn-Davies, G.D., and Wurzel, M. Comparison of effects of aromatic sympathomimetic amines on rabbit aortic strip and rabbit blood pressure. *J. Pharmacol. Exp. Ther.* **147**, 76-85 (1965).
3. Burgen, A.S. and Iversen, L.L. The inhibition of noradrenaline uptake by sympathomimetic amines in the rat isolated heart. *Br. J. Pharmacol. Chemother.* **25**(1), 34-49 (1965).
4. Eisenhofer, G., Lenders, J.W., Linehan, W.M., et al. Plasma normetanephrine and metanephrine for detecting pheochromocytoma in von Hippel-Lindau disease and multiple endocrine neoplasia type 2. *N. Engl. J. Med.* **340**(24), 1872-1879 (1999).
5. Goggin, M.M., Tann, C.-M., Miller, A., et al. Catching fakes: New markers of urine sample validity and invalidity. *J. Anal. Toxicol.* **41**(2), 121-126 (2016).

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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