

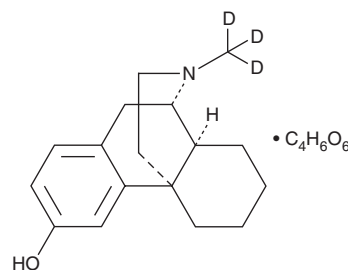
PRODUCT INFORMATION



Dextrorphan-d₃ (tartrate)

Item No. 15810

CAS Registry No.: 1426174-16-4
Formal Name: (9α,13α,14α)-17-(methyl-d₃)-morphinan-3-ol
2R,3R-dihydroxybutanedioate
Synonyms: DXO-d₃, d-3-hydroxy-N-Methylmorphinan d₃
MF: C₁₇H₂₀D₃NO • C₄H₆O₆
FW: 410.5
Purity: ≥98%
Supplied as: A neat solid
Storage: -20°C
Stability: ≥8 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Description

Dextrorphan-d₃ (tartrate) (Item No. 15810) is intended for use as an internal standard for the quantification of dextrorphan (Item Nos. 18908 | 15886) 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).

Dextrorphan is categorized as a morphinan.¹ It is an active metabolite of dextromethorphan (Item Nos. ISO60141 | 11157 | 13950).² Dextrorphan has analgesic activity and induces memory impairments in rats and has anticonvulsant activity and induces hyperlocomotion in mice.^{1,3,4} It substitutes for phencyclidine (PCP; Item Nos. ISO60194 | 14276) in rhesus monkeys.⁵ This product is intended for research and forensic applications.

This product is qualified as a Reference Material that has been manufactured and tested to ISO/IEC 17025 and ISO 17034 international standards for reference materials.

References

1. Chen, Y.W., Chu, K.S., Lin, C.N., *et al.* Dextromethorphan or dextrorphan have a local anesthetic effect on infiltrative cutaneous analgesia in rats. *Anesth. Analg.* **104(5)**, 1251-1255 (2007).
2. Shin, E.J., Lee, P.H., Kim, H.J., *et al.* Neuropsychotoxicity of abused drugs: Potential of dextromethorphan and novel neuroprotective analogs of dextromethorphan with improved safety profiles in terms of abuse and neuroprotective effects. *J. Pharmacol. Sci.* **106(1)**, 22-27 (2008).
3. Dematteis, M., Lallement, G., and Mallaret, M. Dextromethorphan and dextrorphan in rats: Common antitussives - different behavioural profiles. *Fundam. Clin. Pharmacol.* **12(5)**, 526-537 (1998).
4. Cho, Y.-C., Liao, J.-F., Chang, W.-Y., *et al.* Binding of dimemorfan to sigma-1 receptor and its anticonvulsant and locomotor effects in mice, compared with dextromethorphan and dextrorphan. *Brain Res.* **821(2)**, 516-519 (1999).
5. Nicholson, K.L., Hayes, B.A., and Balster, R.L. Evaluation of the reinforcing properties and phencyclidine-like discriminative stimulus effects of dextromethorphan and dextrorphan in rats and rhesus monkeys. *Psychopharmacology (Berl)* **146(1)**, 49-59 (1999).

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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