

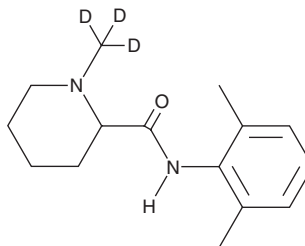
PRODUCT INFORMATION



Mepivacaine-d₃

Item No. 39812

CAS Registry No.: 1346597-90-7
Formal Name: N-(2,6-dimethylphenyl)-1-(methyl-d₃)
piperidine-2-carboxamide
MF: C₁₅H₁₉D₃N₂O
FW: 249.4
Chemical Purity: ≥98% (Mepivacaine)
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

Mepivacaine-d₃ is intended for use as an internal standard for the quantification of mepivacaine 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).

Mepivacaine-d₃ is supplied as a solid. A stock solution may be made by dissolving the mepivacaine-d₃ in the solvent of choice, which should be purged with an inert gas. Mepivacaine-d₃ is slightly soluble in chloroform and methanol.

Description

Mepivacaine is an inhibitor of voltage-gated sodium channels (Na_vs) and a local anesthetic.¹ It inhibits depolarization-induced currents in ND7/23 cells expressing Na_v1.8 channels when used at concentrations of 30 and 100 μM. Mepivacaine (2% w/v) reduces lameness in horses with naturally occurring forelimb lameness.² Formulations containing mepivacaine have been used as local and regional anesthetics.

References

1. Leffler, A., Reckzeh, J., and Nau, C. Block of sensory neuronal Na⁺ channels by the secretolytic ambroxol is associated with an interaction with local anesthetic binding sites. *Eur. J. Pharmacol.* **630**(1-3), 19-28 (2010).
2. Boorman, S., DeGraves, F., Schumacher, J., et al. Comparison of 2% mepivacaine and a solution of 2% lidocaine/epinephrine administered for median and ulnar nerve blocks in horses with naturally occurring forelimb lameness. *Vet. Surg.* **51**(2), 279-285 (2022).

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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