

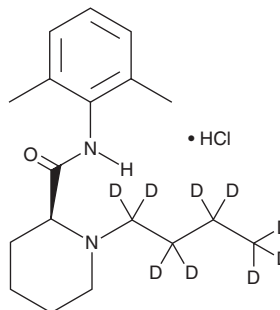
PRODUCT INFORMATION



Levobupivacaine-d₉ (hydrochloride)

Item No. 38904

Formal Name: 1-butyl-d₉-N-(2,6-dimethylphenyl)-(2S)-2-piperidinecarboxamide, monohydrochloride
Synonym: (S)-(-)-Bupivacaine-d₉
MF: C₁₈H₁₉D₉N₂O • HCl
FW: 333.9
Chemical Purity: ≥98% (Levobupivacaine)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₉); ≤1% d₀
Supplied as: A solid
Storage: -20°C
Stability: ≥3 years



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

Laboratory Procedures

Levobupivacaine-d₉ is intended for use as an internal standard for the quantification of levobupivacaine (Item No. 31596) 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).

Levobupivacaine-d₉ (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the levobupivacaine-d₉ (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Levobupivacaine-d₉ (hydrochloride) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of levobupivacaine-d₉ (hydrochloride) in these solvents is approximately 1 mg/ml.

Description

Levobupivacaine is a sodium channel blocker and local anesthetic, as well as the levorotary stereoisomer of bupivacaine (Item No. 16618).¹⁻³ It inhibits cardiac sodium channel currents (I_{Na}) by 57.8% in isolated guinea pig ventricular myocytes when used at a concentration of 10 μM.¹ Levobupivacaine (10 μM) reduces the maximal rate of depolarization (V_{max}) and action potential duration to 76.7 and 83.4% of controls, respectively, in isolated guinea pig papillary muscle.² It induces a complete block of proprioception, motor function, and nociception in the hindleg of rats when administered at a dose of 7.7 mM by percutaneous injection into the sciatic nerve.³

References

- Valenzuela, C., Snyders, D.J., Bennett, P.B., *et al.* Stereoselective block of cardiac sodium channels by bupivacaine in guinea pig ventricular myocytes. *Circulation* **92(10)**, 3014-3024 (1995).
- Vanhoutte, F., Vereecke, J., Verbeke, N., *et al.* Stereoselective effects of the enantiomers of bupivacaine on the electrophysiological properties of the guinea-pig papillary muscle. *Br. J. Pharmacol.* **103(1)**, 1275-1281 (1991).
- Sinnott, C.J. and Strichartz, G.R. Levobupivacaine versus ropivacaine for sciatic nerve block in the rat. *Reg. Anesth. Pain Med.* **28(4)**, 294-303 (2003).

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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