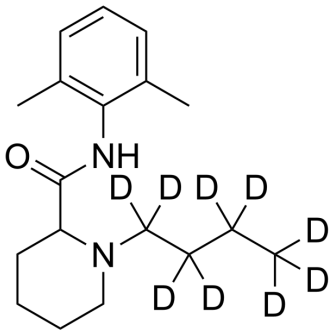
Bupivacaine-d_9

Cat. No.:	HY-B0405S
CAS No.:	474668-57-0
Molecular Formula:	$C_{18}H_{19}D_9N_2O$
Molecular Weight:	297.48
Target:	iGluR; Sodium Channel; Calcium Channel; Potassium Channel; Isotope-Labeled Compounds
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Bupivacaine-$d_9$9 is a deuterium labeled Bupivacaine. Bupivacaine is a NMDA receptor inhibitor.Bupivacaine can block sodium, L-calcium, and potassium channels.Bupivacaine potently blocks SCN5A channels with the IC50 of 69.5 μM. Bupivacaine can be used for the research of chronic pain[1][2][3].
IC_{50} & Target	NMDA Receptor

REFERENCES

[1]. Stoetzer C, et al. Inhibition of Voltage-Gated Na+ Channels by Bupivacaine Is Enhanced by the Adjuvants Buprenorphine, Ketamine, and Clonidine. Reg Anesth Pain Med. 2017;42(4):462-468.

[2]. Schwoerer AP, et al. A Comparative Analysis of Bupivacaine and Ropivacaine Effects on Human Cardiac SCN5A Channels. Anesth Analg. 2015;120(6):1226-1234.

[3]. Paganelli MA, et al. Actions of bupivacaine, a widely used local anesthetic, on NMDA receptor responses. J Neurosci. 2015;35(2):831-842.

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