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DATASHEET

QX 314 bromide

Product overview

Name	QX 314 bromide
Cat No	HB1029
Alternative names	N-Ethyllidocaine bromide, QX-314
Biological action	Blocker
Purity	>98%
Description	Membrane impermeable Na ⁺ channel blocker

Images



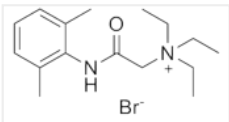
Biological Data

Biological description	Membrane impermeable Na ⁺ channel blocker. A quaternary derivative of lidocaine. Reduces amplitude of high threshold Ca ²⁺ currents in CA1 neurons. Displays anesthetic properties. QX 314 chloride also available.
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Solubility & Handling

Storage instructions	Room temperature (desiccate)
Solubility overview	Soluble in water (100mM)
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

Chemical Data

Chemical name	N-(2,6-Dimethylphenyl)carbamoylmethyltriethylammonium bromide
Molecular Weight	343.31
Chemical structure	
Molecular Formula	C ₁₆ H ₂₇ N ₂ OBr

Chemical name	<i>N</i> -(2,6-Dimethylphenylcarbamoylmethyl)triethylammonium bromide
CAS Number	24003-58-5
PubChem identifier	9884487
SMILES	<chem>CC[N+](CC)(CC)CC(=O)NC1=C(C=CC=C1C)C.[Br-]</chem>
Source	Synthetic
InChi	InChI=1S/C16H26N2O.BrH/c1-6-18(7-2,8-3)12-15(19)17-16-13(4)10-9-11-14(16)5;/h9-11H,6-8,12H 2,1-5H3;1H
InChiKey	DLHMKHREUTXMCH-UHFFFAOYSA-N
Appearance	White solid

References

Intracellular QX-314 inhibits calcium currents in hippocampal CA1 pyramidal neurons.

Talbot MJ *et al* (1996) J Neurophysiol 76(3)

PubMedID [8890325](#)

Fast sodium action potentials are generated in the distal apical dendrites of rat hippocampal CA1 pyramidal cells.

Colling SB *et al* (1994) Neurosci Lett 172(1-2)

PubMedID [8084540](#)

The inhibition of sodium currents in myelinated nerve by quaternary derivatives of lidocaine.

Strichartz GR (1973) J Gen Physiol 62(1)

PubMedID [4541340](#)
