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DATASHEET

Naloxone hydrochloride

Product overview

Name	Naloxone hydrochloride
Cat No	HB2451
Alternative names	NLX
Biological action	Antagonist
Purity	>99%
Description	Competitive opioid receptor antagonist

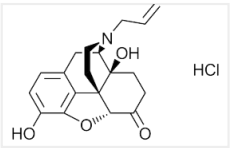
Biological Data

Biological description	Competitive opioid receptor antagonist with high affinity at μ-opioid receptors. Blocks effects of opiods. Induces acute withdrawal state in opiate-dependent models. Active *in vivo*.

Solubility & Handling

Storage instructions	Room temperature
Solubility overview	Soluble in water (100 mM)
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	(5α)-4,5-Epoxy-3,14-dihydro-17-(2-pr openyl)morphinan-6-one hydrochloride
Molecular Weight	363.84
Chemical structure	
Molecular Formula	$C_{19}H_{21}NO_4.HCl$
CAS Number	357-08-4
PubChem identifier	5464092
SMILES	C=CCN1CC[C@]23[C@@H]4C(=O)CC[C@]2([C@H]1CC5=C3C(=C(C=C5)O)O4)O.Cl
InChi	InChI=1S/C19H21NO4.ClH/c1-2-8-20-9-7-18-15-11-3-4-12(21)16(15)24-17(18)13(22)5-6-19(18,23)14(20)10-11;/h2-4,14,17,21,23H,1,5-10H2;1H/t14-,17+,18+,19-;/m1./s1
InChiKey	RGPDIGOSVORSAK-STHHAXOLSA-N
MDL number	MFCD00150901
Appearance	White solid

References

Naloxone activation of mu-opioid receptors mutated at a histidine residue lining the opioid binding cavity.

Spivak et al (1997) Mol Pharmacol 52(6)

PubMedID 9415708

Error correction in latent inhibition and its disruption by opioid receptor blockade with naloxone.

Leung et al (2013) Neuropsychopharmacology 38(12)
PubMedID 23748224

Quantitative evaluation of opioid withdrawal signs in rats repeatedly treated with morphine and injected with naloxone, in the absence or presence of the antiabstinence agent clonidine.

Pinelli et al (1997) J Pharmacol Toxicol Methods 38(3)
PubMedID 9523765