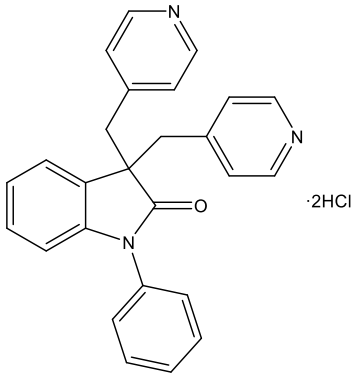
Catalog # 10-4654
Linopirdine dihydrochloride

CAS# 113168-57-3

1-Phenyl-3,3-bis(pyridine-4-ylmethyl)indolin-2-one dihydrochloride; DuP 996

Lot # FBS3084



Linopirdine increases acetylcholine release and improves performance in animal models of learning and memory *via* blockade of Kv7 (KCNQ) voltage-gated potassium channels.[1-3] Linopirdine is a state-dependent blocker favoring activated single subunits of the channel.[4] It has also been shown to act as an agonist of TRPV1.[5]

1) Kritufek (1999), *Modulation of spontaneous and stimulation-evoked transmitter release from rat sympathetic neurons by the cognition enhancer linopirdine: insights into its mechanisms of action*; J. Neurochem. **72** 2083
2) Wang *et al*. (1998), *KCNQ2 and KCNQ3 potassium channel subunits: molecular correlates of the M-channel*; Science **282** 1890
3) Fontana *et al*. (1994), *Linopirdine (DuP 996) improves performance in several tests of learning and memory by modulation of cholinergic neurotransmission*; Pharmacol. Biochem. Behav. **49** 1075
4) Greene *et al*. (2017), *XE991 and Linopirdine Are State-Dependent Inhibitors of Kv7/KCNQ Channels that Favor Activated Subunits*; J. Pharmacol. Exp. Ther. **362** 177
5) Neascu and Babes (2010), *The M-channel blocker linopirdine is an agonist of the capsaicin receptor TRPV1*; J. Pharmacol. Sci. **114** 332

PHYSICAL DATA

Molecular Weight:	464.39
Molecular Formula:	$C_{26}H_{21}N_3O \cdot 2HCl$
Purity:	98% by HPLC
	NMR: (Conforms)
Solubility:	DMSO (>25 mg/ml); Water (>25 mg/ml)
Physical Description:	Off-white solid
Storage and Stability:	Store as supplied at -20°C for up to 2 years from the date of purchase. Solutions in DMSO or water may be stored at -20°C for up to 3 months.

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