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DATASHEET

Linopirdine dihydrochloride

Product overview

Name	Linopirdine dihydrochloride
Cat No	HB1082
Alternative names	DuP 996
Biological action	Blocker
Purity	>98%
Description	K_v7 channel blocker

Images

Biological Data

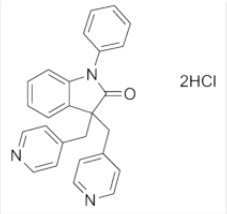
Biological description	K_v7 channel blocker. Increases ACh release in the brain and blocks M currents (IC_{50} = 2.4 µM). Induces increased neocortical Fos protein expression in aged rats. Also agonises TRPV1 (transient receptor potential vanilloid type 1) channel. Shows excitatory actions on nociceptors and shows cognition enhancing actions.

Solubility & Handling

Storage instructions	Room temperature (desiccate)
Solubility overview	Soluble in water (100mM) and in DMSO (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	1,3-Dihydro-1-phenyl-3,3-*bis*(4-pyridinylmethyl)-2*H*-indol-2-one dihydrochloride
Molecular Weight	464.39
Chemical structure	



Molecular Formula	$C_{26}H_{21}N_3O.2HCl$
CAS Number	113168-57-3
PubChem identifier	14209557
SMILES	C1=CC=C(C=C1)N2C3=CC=CC=C3C(C2=O)(CC4=CC=NC=C4)CC5=CC=NC=C5.Cl.Cl
InChi	InChI=1S/C26H21N3O.2ClH/c30-25-26(18-20-10-14-27-15-11-20,19-21-12-16-28-17-13-21)23-8-4-5-9-24(23)29(25)22-6-2-1-3-7-22;;/h1-17H,18-19H2;2*1H
InChiKey	ZEVVHCGTTNRYOY-UHFFFAOYSA-N
MDL number	MFCD00867216

References

The M-channel blocker linopirdine is an agonist of the capsaicin receptor TRPV1.

Neacsu C *et al* (2010) J Pharmacol Sci 114(3)
PubMedID 21099148

Selectivity of linopirdine (DuP 996), a neurotransmitter release enhancer, in blocking voltage-dependent and calcium-activated potassium currents in hippocampal neurons.

Schnee ME *et al* (1998) J Pharmacol Exp Ther 286(2)
PubMedID 9694925

The acetylcholine release enhancer linopirdine induces Fos in neocortex of aged rats.

Dent GW *et al* (2001) Neurobiol Aging 22(3)
PubMedID 11378256