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DATASHEET

Cypermethrin

Product overview

Name	Cypermethrin
Cat No	HB0222
Biological action	Inhibitor
Purity	>96%
Description	Potent PP2B inhibitor

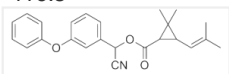
Biological Data

Biological description	Potent phosphatase 2B (PP2B) inhibitor ($IC_{50} = 40$ pM). Type II synthetic pyrethroid insecticide. Interacts with sodium channels producing neurotoxin effects. Also potent calcineurin inhibitor ($IC_{50} = 100$ nM). Blood brain barrier permeable.
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Solubility & Handling

Storage instructions	+4 °C
Solubility overview	Soluble in ethanol (25mg/ml) or DMSO
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

Molecular Weight	416.3
Chemical structure	
Molecular Formula	$C_{22}H_{19}Cl_2NO_3$
CAS Number	52315-07-8
PubChem identifier	2912
SMILES	<chem>CC1(C)C(C=C(/Cl)Cl)C1C(=O)OC(C#N)C1=CC(OC2=CC=CC=C2)=CC=C1</chem>

References

Inhibition of phosphatase 2B prevents expression of hippocampal long-term potentiation.

Wang JH *et al* (1994) Neuroreport 5(17)

PubMedID [7881062](#)

Specific inhibition of calcineurin by type II synthetic pyrethroid insecticides.

Enan E *et al* (1992) Biochem Pharmacol 43(8)

PubMedID [1315545](#)

Effect of cypermethrin on memory, movement activity and coordination in mice after transient incomplete cerebral ischemia.

Nieradko-Iwanicka B *et al* (2008) Pharmacol Rep 60(5)

PubMedID 19066417

Specific inhibition of calcineurin by type II synthetic pyrethroid insecticides.

Enan E *et al* (1992) Biochem Pharmacol 43(8)

PubMedID 1315545
