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DATASHEET

Cypermethrin

Product overview

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

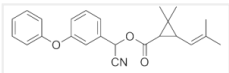
Biological Data

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

Solubility overview	Soluble in ethanol (25mg/ml) or DMSO
Storage instructions	+4 °C
Storage of solutions	Prepare and use solutions on the same day if possible. Store solutions at -20 °C for up to one month if storage is required. Equilibrate to RT and ensure the solution is precipitate free before use.
Shipping Conditions	Stable for ambient temperature shipping. Follow storage instructions on receipt.
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](#)
