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## DATASHEET

Cypermethrin

### Product overview

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

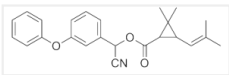
### Biological Data

<b>Biological description</b>	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

<b>Storage instructions</b>	+4 °C
<b>Solubility overview</b>	Soluble in ethanol (25mg/ml) or DMSO
<b>Important</b>	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

### Chemical Data

<b>Molecular Weight</b>	416.3
<b>Chemical structure</b>	
<b>Molecular Formula</b>	$C_{22}H_{19}Cl_2NO_3$
<b>CAS Number</b>	52315-07-8
<b>PubChem identifier</b>	2912
<b>SMILES</b>	<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

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