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## DATASHEET

Capsazepine

### Product overview

<b>Name</b>	Capsazepine
<b>Cat No</b>	HB1040
<b>Biological action</b>	Antagonist
<b>Purity</b>	>97%
<b>Description</b>	TRPV1 channel antagonist

### Images



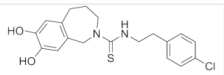
### Biological Data

<b>Biological description</b>	TRPV1 channel antagonist ( $IC_{50} = 562$ nM). Converts $N^+$ , $K^+$ -ATPase into $Na^+$ -ATPase. Synthetic analog of capsaicin and competitive capsaicin antagonist. Displays analgesic and anticonvulsant properties.
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### Solubility & Handling

<b>Storage instructions</b>	Room temperature
<b>Solubility overview</b>	Soluble in ethanol (25mM) and in DMSO (100mM)
<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>Chemical name</b>	<i>N</i> -[2-(4-Chlorophenyl)ethyl]-1,3,4,5-tetrahydro-7,8-dihydroxy-2 <i>H</i> -2-benzazepine-2-carbothioamide
<b>Molecular Weight</b>	376.9
<b>Chemical structure</b>	
<b>Molecular Formula</b>	$C_{19}H_{21}ClN_2O_2S$
<b>CAS Number</b>	138977-28-3
<b>PubChem identifier</b>	2733484
<b>SMILES</b>	<chem>C1CC2=CC(=C(C=C2CN(C1)C(=S)NCCC3=CC=C(C=C3)Cl)O)O</chem>
<b>InChI</b>	InChI=1S/C19H21ClN2O2S/c20-16-5-3-13(4-6-16)7-8-21-19(25)22-9-1-2-14-10-17(23)18(24)11-15(14)12-22/h3-6,10-11,23-24H,1-2,7-9,12H2,(H,21,25)

## References

### **Capsazepine, a synthetic vanilloid that converts the Na,K-ATPase to Na-ATPase.**

Mahmoud YA (2008) Proc Natl Acad Sci U S A 105(5)

**PubMedID** [18230728](#)

### **Functional properties of the high-affinity TRPV1 (VR1) vanilloid receptor antagonist (4-hydroxy-5-iodo-3-methoxyphenylacetate ester) iodo-resiniferatoxin.**

Seabrook GR *et al* (2002) J Pharmacol Exp Ther 303(3)

**PubMedID** [12438527](#)

### **The discovery of capsazepine, the first competitive antagonist of the sensory neuron excitants capsaicin and resiniferatoxin.**

Walpole CS *et al* (1994) J Med Chem 37(13)

**PubMedID** [8027976](#)

### **TRPV1 antagonist capsazepine suppresses 4-AP-induced epileptiform activity in vitro and electrographic seizures in vivo.**

Gonzalez-Reyes LE *et al* (2013) Exp Neurol 250

**PubMedID** [24145133](#)

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