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DATASHEET

Capsazepine

Product overview

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

Images



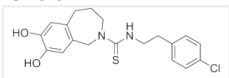
Biological Data

Biological description	TRPV1 channel antagonist ($IC_{50} = 562 \text{ nM}$). 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

Storage instructions	Room temperature
Solubility overview	Soluble in ethanol (25mM) and in DMSO (100mM)
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	N-[2-(4-Chlorophenyl)ethyl]-1,3,4,5-tetrahydro-7,8-dihydroxy-2H-2-benzazepine-2-carbothioamide
Molecular Weight	376.9
Chemical structure	
Molecular Formula	$C_{19}H_{21}ClN_2O_2S$
CAS Number	138977-28-3
PubChem identifier	2733484
SMILES	<chem>C1CC2=CC(=C(C=C2CN(C1)C(=S)NCCCC3=CC=C(C=C3)Cl)O)O</chem>
InChi	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)

Chemical name	<i>N</i> -[2-(4-Chlorophenyl)ethyl]-1,3,4,5-tetrahydro-7,8-dihydroxy-2 <i>H</i> -2-benzazepine-2-carbothioamide
InChiKey	DRCMAZOSEIMCHM-UHFFFAOYSA-N
MDL number	MFCD00153778

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)

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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](#)
