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DATASHEET

CGP 37157

Product overview

Name	CGP 37157
Cat No	HB1132
Biological action	Inhibitor
Purity	>99%
Description	Potent, selective mitochondria Na^+ / Ca^{2+} exchange inhibitor

Images

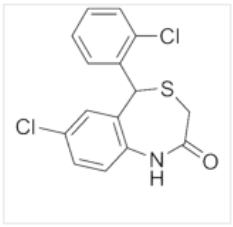
Biological Data

Biological description	Potent and selective mitochondria Na^+ / Ca^{2+} exchange inhibitor (IC_{50} = 0.36 µM). Also inhibits sarco/endoplasmic reticulum Ca^{2+}-stimulated ATPase (SERCA) and activates ryanodine receptor channels (RyRs) (EC_{50} values are 9.4 and 12.0 µM for cardiac and skeletal RyRs respectively). Displays neuroprotective properties.

Solubility & Handling

Storage instructions	Room temperature
Solubility overview	Soluble 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	7-Chloro-5-(2-chlorophenyl)-1,5-dihydro-4,1-benzothiazepin-2(3*H*)-one
Molecular Weight	324.22
Chemical structure	

Molecular Formula	$C_{15}H_{11}Cl_2NOS$
CAS Number	75450-34-9
PubChem identifier	2688
SMILES	C1C(=O)NC2=C(C=C(C=C2)Cl)C(S1)C3=CC=CC=C3Cl
InChi	InChI=1S/C15H11Cl2NOS/c16-9-5-6-13-11(7-9)15(20-8-14(19)18-13)10-3-1-2-4-12(10)17/h1-7,15H,8H2,(H,18,19)
InChiKey	KQEPIRKXSUIUTH-UHFFFAOYSA-N
MDL number	MFCD09055422

References

Benzothiazepine CGP37157 and its isosteric 2'-methyl analogue provide neuroprotection and block cell calcium entry.

González-Lafuente L *et al* (2012) ACS Chem Neurosci 3(7)
PubMedID 22860221

CGP37157, an inhibitor of the mitochondrial Na+/Ca2+ exchanger, protects neurons from excitotoxicity by blocking voltage-gated Ca2+ channels.

Ruiz A *et al* (2014) Cell Death Dis 5
PubMedID 24722281

Selectivity of inhibition of Na(+)-Ca2+ exchange of heart mitochondria by benzothiazepine CGP-37157.

Cox DA *et al* (1993) J Cardiovasc Pharmacol 21(4)
PubMedID 7681905

CGP-37157 inhibits the sarcoplasmic reticulum Ca?+ ATPase and activates ryanodine receptor channels in striated muscle.

Neumann JT *et al* (2011) Mol Pharmacol 79(1)
PubMedID 20923851