Product overview

Name: CGP 37157  
Cat No: HB1132
Short description: Potent, selective mitochondria Na\(^+\)/Ca\(^{2+}\) exchange inhibitor
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.
Biological action: Inhibitor
Purity: >99%

Properties

Chemical name: 7-Chloro-5-(2-chlorophenyl)-1,5-dihydro-4,1-benzothiazepin-2(3H)-one
Molecular Weight: 324.22
Molecular Formula: C\(_{15}\)H\(_{11}\)Cl\(_2\)NOS
CAS Number: 75450-34-9
PubChem identifier: 2688
SMILES: C1C(=O)NC2=C(C=C=C2)ClC(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

Storing and Using Your Product

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.

References for CGP 37157
Benzothiazepine CGP37157 and its isosteric 2’-methyl analogue provide neuroprotection and block cell calcium entry.
PubMedID: 22860221

CGP37157, an inhibitor of the mitochondrial Na+/Ca2+ exchanger, protects neurons from excitotoxicity by blocking voltage-gated Ca2+ channels.
PubMedID: 24722281

Selectivity of inhibition of Na(+)-Ca2+ exchange of heart mitochondria by benzothiazepine CGP-37157.
PubMedID: 7681905

CGP-37157 inhibits the sarcoplasmic reticulum Ca2+ ATPase and activates ryanodine receptor channels in striated muscle.
PubMedID: 20923851