

Hello Bio, Inc.
304 Wall St., Princeton, NJ 08540 USA

T. 609-683-7500
F. 609-228-4994

customercare-usa@m2stage.hellobio.com



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



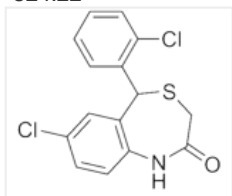
Biological Data

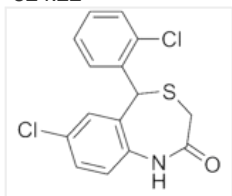
Biological description	Potent and selective mitochondria Na ⁺ / Ca ²⁺ exchange inhibitor (IC ₅₀ = 0.36 μM). Also inhibits sarco/endoplasmic reticulum Ca ²⁺ -stimulated ATPase (SERCA) and activates ryanodine receptor channels (RyRs) (EC ₅₀ values are 9.4 and 12.0 μM for cardiac and skeletal RyRs respectively). Displays neuroprotective properties.
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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(3H)-one
Molecular Weight	324.22
Chemical structure	



Chemical name	7-Chloro-5-(2-chlorophenyl)-1,5-dihydro-4,1-benzothiazepin-2(3 <i>H</i>)-one
Molecular Formula	C ₁₅ H ₁₁ Cl ₂ NOS
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 Ca²⁺ ATPase and activates ryanodine receptor channels in striated muscle.

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

PubMedID [20923851](#)
