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

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

customercare-usa@hellobio.com

# DATASHEET

CGP 37157

## Product overview

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

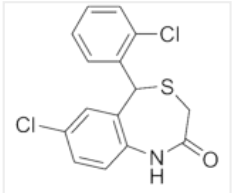
## Biological Data

| | |
|---|---|
| **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