

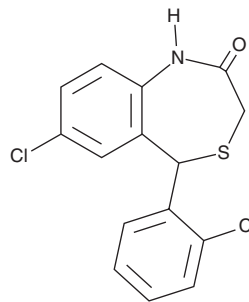
# PRODUCT INFORMATION



## CGP 37157

Item No. 15611

**CAS Registry No.:** 75450-34-9  
**Formal Name:** 7-chloro-5-(2-chlorophenyl)-1,5-dihydro-4,1-benzothiazepin-2(3H)-one  
**MF:** C<sub>15</sub>H<sub>11</sub>Cl<sub>2</sub>NOS  
**FW:** 324.2  
**Purity:** ≥95%  
**Supplied as:** A solid  
**Storage:** 4°C  
**Stability:** ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

CGP 37157 is supplied as a solid. A stock solution may be made by dissolving the CGP 37157 in the solvent of choice. CGP 37157 is soluble in organic solvents such as ethanol and DMSO, which should be purged with an inert gas. The solubility of CGP 37157 in these solvents is approximately 25 and 100 mM, respectively. We do not recommend storing the aqueous solution for more than one day.

### Description

CGP 37157 is a benzothiazepine that acts as a selective inhibitor of the mitochondrial sodium-calcium exchanger (IC<sub>50</sub> = 0.36 μM in isolated mitochondria).<sup>1</sup> It does not affect channels, exchangers, or ATPases on the cardiac sarcolemma or ATPases on sarcoplasmic reticulum.<sup>1</sup> CGP 37157 is commonly used to study the role of mitochondrial-derived calcium in cytoplasmic calcium homeostasis.<sup>2,3</sup> CGP 37157 inhibits sodium-dependent calcium efflux via the mitochondrial exchanger NCLX in a variety of cell types (IC<sub>50</sub> = 5 μM).<sup>4,5</sup>

### References

1. Cox, D.A., Conforti, L., Sperelakis, N., *et al.* Selectivity of inhibition of Na<sup>+</sup>-Ca<sup>2+</sup> exchange of heart mitochondria by benzothiazepine CGP-37157. *J. Cardiovasc. Pharmacol.* **21(4)**, 595-599 (1993).
2. Baron, K.T. and Thayer, S.A. CGP37157 modulates mitochondrial Ca<sup>2+</sup> homeostasis in cultured rat dorsal root ganglion neurons. *Eur. J. Pharmacol.* **340(2-3)**, 295-300 (1997).
3. White, R.J. and Reynolds, I.J. Mitochondria accumulate Ca<sup>2+</sup> following intense glutamate stimulation of cultured rat forebrain neurones. *J. Physiol.* **498(Pt 1)**, 31-47 (1997).
4. Palty, R., Silverman, W.F., Hershinkel, M., *et al.* NCLX is an essential component of mitochondrial Na<sup>+</sup>/Ca<sup>2+</sup> exchange. *Proc. Natl. Acad. Sci. USA* **107(1)**, 436-441 (2010).
5. Parnis, J., Montana, V., Delgado-Martinez, I., *et al.* Mitochondrial exchanger NCLX plays a major role in the intracellular Ca<sup>2+</sup> signaling, gliotransmission, and proliferation of astrocytes. *J. Neurosci.* **33(17)**, 7206-7219 (2013).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 03/27/2019

#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM