Inhibits the mitochondrial Na\(^+\)-Ca\(^{2+}\) exchanger (NCX) in isolated heart mitochondria, IC\(_{50}\)=0.36 \(\mu\)M.\(^1\) Does not inhibit the plasmalemmal NCX.\(^2\) Also inhibits voltage-gated Ca\(^{2+}\) channels in intact cells and therefore its use in cellular studies must employ adequate controls.\(^3\) Prevents sudden death in a Guinea pig model of heart failure.\(^4\) Displays pronounced cytoprotective effects in chromaffin cells\(^5\) and in neuronal injury models.\(^6\) Blood-brain barrier permeant.

3) Baron & Thayer (1997), CGP37157 modulates mitochondrial Ca2+ homeostasis in cultured rat dorsal root ganglion neurons; Eur. J. Pharmacol., 340 295
4) Liu et al. (2014), Inhibiting mitochondrial Na+/Ca2+ exchange prevents sudden death in a guinea pig model of heart failure; Circ. Res., 115 44
5) Nicolau et al. (2009), Mitochondrial Na+/Ca2+-exchanger blocker CGP37157 protects against chromaffin cell death elicited by veratridine; J. Pharmacol. Exp. Ther., 330 844
6) Ruiz et al. (2014), CGP37157, an inhibitor of the mitochondrial Na+/CA2+ exchanger, protects neurons from excitotoxicity by blocking voltage gated Ca2+ channels; Cell Death Dis., 5 e1156

**PHYSICAL DATA**

Molecular Weight: 324.22
Molecular Formula: C\(_{15}\)H\(_{11}\)Cl\(_2\)NOS
Purity: 99% by TLC (5% Methanol/methylene chloride; Rf = 0.42)
Solubility: DMSO (>25mg/mL)
Physical Description: White solid

Storage and Stability: Store as supplied at RT for up to 2 years from the date of purchase.

Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.

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