

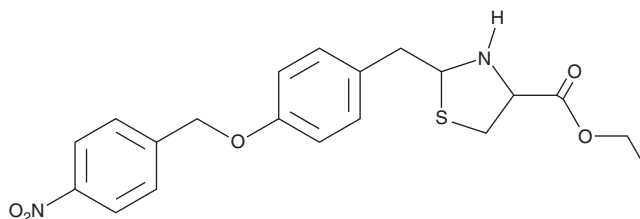
# PRODUCT INFORMATION



## SN-6

Item No. 42390

**CAS Registry No.:** 415697-08-4  
**Formal Name:** 2-[[4-[(4-nitrophenyl)methoxy]phenyl]methyl]-4-thiazolidinecarboxylic acid, ethyl ester  
**MF:** C<sub>20</sub>H<sub>22</sub>N<sub>2</sub>O<sub>5</sub>S  
**FW:** 402.5  
**Purity:** ≥98%  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years



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

### Laboratory Procedures

SN-6 is supplied as a solid. A stock solution may be made by dissolving the SN-6 in the solvent of choice, which should be purged with an inert gas. SN-6 is slightly soluble (0.1-1 mg/ml) in DMSO and acetonitrile.

### Description

SN-6 is an inhibitor of sodium-calcium exchanger 1 (NCX1; IC<sub>50</sub> = 2.9 μM).<sup>1</sup> It is selective for NCX1 over NCX2, NCX3, and sodium-potassium-calcium exchanger 2 (NCKX2; IC<sub>50</sub>s = 16, 8.6, and >30 μM, respectively) and a panel of 26 additional ion channels and receptors at 30 μM. SN-6 inhibits bidirectional inward and outward currents and unidirectional outward currents in whole-cell voltage-clamp assays using isolated guinea pig ventricular myocytes (IC<sub>50</sub>s = 1.9, 2.3, and 0.6 μM, respectively).<sup>2</sup> It reduces hypoxia-reoxygenation-induced lactate dehydrogenase (LDH) release in LLC-PK1 porcine kidney epithelial cells overexpressing NCX1 (IC<sub>50</sub> = 0.63 μM).<sup>1</sup> *In vivo*, SN-6 (10 mg/kg) decreases ethanol intake and preference in female rats.<sup>3</sup> It decreases the incidence of clonic and tonic-clonic seizures induced by pentylenetetrazole (PTZ; Item No. 18682) in rats when administered at doses ranging from 1 to 30 mg/kg.<sup>4</sup>

### References

1. Iwamoto, T., Inoue, Y., Ito, K., *et al.* The exchanger inhibitory peptide region-dependent inhibition of Na<sup>+</sup>/Ca<sup>2+</sup> exchange by SN-6 [2-[4-(4-nitrobenzyloxy)benzyl]thiazolidine-4-carboxylic acid ethyl ester], a novel benzyloxyphenyl derivative. *Mol. Pharmacol.* **66**(1), 45-55 (2004).
2. Niu, C.-F., Watanabe, Y., Ono, K., *et al.* Characterization of SN-6, a novel Na<sup>+</sup>/Ca<sup>2+</sup> exchange inhibitor in guinea pig cardiac ventricular myocytes. *Eur. J. Pharmacol.* **573**(1-3), 161-169 (2007).
3. Silva-Cardoso, G.K. and N'Gouemo, P. Inhibition of the sodium-calcium exchanger reverse mode activity reduces alcohol consumption in rats. *Int. J. Mol. Sci.* **25**(7), 4132 (2025).
4. N'Gouemo, P. Probing the role of the sodium/calcium exchanger in pentylenetetrazole-induced generalized seizures in rats. *Brain Res. Bull.* **90**, 52-57 (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.

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