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Data Sheet

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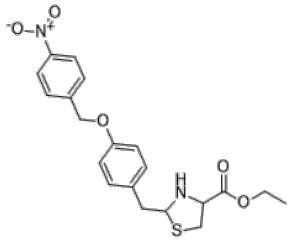
Product Name	:	NCX inhibitor SN-6
Cat. No.	:	PC-25194
CAS No.	:	415697-08-4
Molecular Formula	:	$C_{20}H_{22}N_2O_5S$
Molecular Weight	:	402.47
Target	:	Sodium-calcium Exchanger (NCX)
Solubility	:	10 mM in DMSO



Biological Activity

SN-6 is a selective Na+/Ca2+ exchanger (NCX) inhibitor, inhibits Ca2+ uptake by NCX1, NCX2, and NCX3 with IC50 of 2.9, 16, and 8.6 uM, respectively.
SN-6 (0.3-30 uM) inhibits preferentially intracellular Na(+)-dependent (45)Ca(2+) uptake (i.e., the reverse mode) compared with extracellular Na(+)-dependent (45)Ca(2+) efflux (i.e., the forward mode) in NCX1-transfected fibroblasts.
SN-6 is 3- to 5-fold more inhibitory to (45)Ca(2+) uptake in NCX1 (IC(50) = 2.9 uM) than to that in NCX2 or NCX3 but not to that in NCKX2.
SN-6 at lower doses (IC(50) = 0.63 uM) potently protects against hypoxia/reoxygenation-induced cell damage in renal tubular cells overexpressing NCX1, suggesting that this drug predominantly works under hypoxic/ischemic conditions.

References

Iwamoto T, et al. Mol Pharmacol. 2004 Jul;66(1):45-55.

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