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Data Sheet

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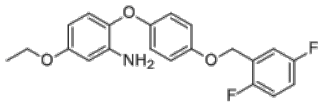

Product Name	:	SEA0400
Cat. No.	:	PC-73275
CAS No.	:	223104-29-8
Molecular Formula	:	$C_{21}H_{19}F_2NO_3$
Molecular Weight	:	371.384
Target	:	Sodium-calcium Exchanger (NCX)
Solubility	:	10 mM in DMSO

Biological Activity

SEA0400 (SEA-0400) is a potent and selective **Na(+)/Ca(2+) exchanger** (NCX) inhibitor, inhibits Na+-dependent Ca2+ uptake in cultured neurons, astrocytes, and microglia with IC50 of 5-33 nM.
SEA0400 is more potent than KB-R7943.
SEA0400 is NCX selective, does not affect the activities of the Na+/H+ exchanger, Na+,K+-ATPase, Ca2+-ATPase.
SEA0400 preferentially inhibits (45)Ca(2+) uptake by **NCX1** compared with inhibitions by NCX2, NCX3, and NCKX2.
EA0400 also selectively blocked outward exchange currents from NCX1 transfectants.
SEA0400 protected against hypoxia/reoxygenation-induced cell damage in tubular cells expressing wild-type NCX1.
SEA0400 attenuated dose- dependently paradoxical Ca2+ challenge-induced production of reactive oxygen species, DNA ladder formation, and nuclear condensation in cultured astrocyte.
SEA0400 reduced infarct volumes after a transient middle cerebral artery occlusion in rat cerebral cortex and striatum.

References

Takahiro Iwamoto, et al. ***J Biol Chem.*** 2004 Feb 27;279(9):7544-53.

T Matsuda, et al. ***J Pharmacol Exp Ther.*** 2001 Jul;298(1):249-56.

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