

PRODUCT INFORMATION



SEA0400

Item No. 19876

CAS Registry No.: 223104-29-8
Formal Name: 2-[4-[(2,5-difluorophenyl)methoxy]phenoxy]-5-ethoxy-benzenamine

MF: C₂₁H₁₉F₂NO₃

FW: 371.4

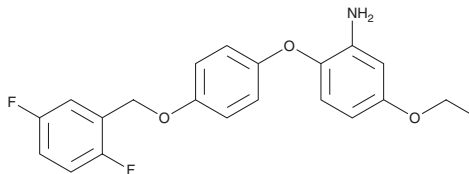
Purity: ≥98%

UV/Vis.: λ_{max}: 288 nm

Supplied as: A crystalline solid

Storage: -20°C

Stability: As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly



Laboratory Procedures

SEA0400 is supplied as a crystalline solid. A stock solution may be made by dissolving the SEA0400 in the solvent of choice. SEA0400 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of SEA0400 in these solvents is approximately 0.25, 2, and 1 mg/ml, respectively.

SEA0400 is sparingly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

SEA0400 is a selective inhibitor of the Na⁺/Ca²⁺ exchanger (IC₅₀s = 5, 8.3, and 33 nM for inhibiting Na⁺-dependent Ca²⁺ uptake in rat astrocyte, microglia, and cortical neuron cell lines, respectively).¹ It is reported to prevent dopaminergic neurotoxicity in an MPTP mouse model of Parkinson's disease and to attenuate reperfusion injury in both *in vitro* and *in vivo* cerebral ischemic models.^{2,3}

References

1. Matsuda, T., Arakawa, N., Takuma, K., *et al.* SEA0400, a novel and selective inhibitor of the Na⁺-Ca²⁺ exchanger, attenuates reperfusion injury in the *in vitro* and *in vivo* cerebral ischemic models. *J. Pharmacol. Exp. Ther.* **298**(1), 249-256 (2001).
2. Nashida, T., Takuma, K., Fukuda, S., *et al.* The specific Na⁺/Ca²⁺ exchange inhibitor SEA0400 prevents nitric oxide-induced cytotoxicity in SH-SY5Y cells. *Neurochem. Int.* **59**(1), 51-58 (2011).
3. Ago, Y., Kawasaki, T., Nashida, T., *et al.* SEA0400, a specific Na⁺/Ca²⁺ exchange inhibitor, prevents dopaminergic neurotoxicity in an MPTP mouse model of Parkinson's disease. *Neuropharmacology* **61**(8), 1441-1451 (2011).

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

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