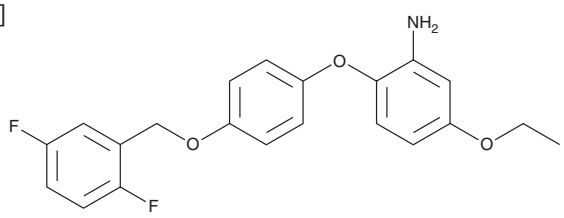
PRODUCT INFORMATION

SEA0400

Item No. 19876

CAS Registry No.: 223104-29-8
Formal Name: 2-[4-[(2,5-difluorophenyl)methoxy] phenoxy]-5-ethoxy-benzenamine
MF: $C_{21}H_{19}F_2NO_3$
FW: 371.4
Purity: ≥98%
UV/Vis.: λ_{max}: 288 nm
Supplied as: A crystalline 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

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

Description

SEA0400 is a selective inhibitor of the Na^+/Ca^{2+} exchanger (IC_{50}s = 5, 8.3, and 33 nM for inhibiting Na^+-dependent Ca^{2+} 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^+-Ca^{2+} 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^+/Ca^{2+} 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^+/Ca^{2+} exchange inhibitor, prevents dopaminergic neurotoxicity in an MPTP mouse model of Parkinson's disease. *Neuropharmacology* **61(8)**, 1441-1451 (2011).

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