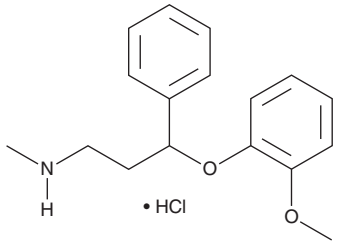
PRODUCT INFORMATION

Nisoxetine (hydrochloride)

Item No. 29637

CAS Registry No.:	57754-86-6
Formal Name:	γ-(2-methoxyphenoxy)-N-methyl-benzenepropanamine, monohydrochloride
Synonyms:	Lilly 94939, NSC 298819
MF:	$C_{17}H_{21}NO_2$ • HCl
FW:	307.8
Purity:	≥98%
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

Nisoxetine (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the nisoxetine (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Nisoxetine (hydrochloride) is soluble in organic solvents such as ethanol. It is also soluble in water. The solubility of nisoxetine (hydrochloride) in ethanol and water is approximately 50 and 20 mg/ml, respectively. We do not recommend storing the aqueous solution for more than one day.

Description

Nisoxetine is a norepinephrine transporter (NET) inhibitor (K_i = 5.1 nM).[1] It is selective for NET over the dopamine transporter (DAT) and the serotonin (5-HT) transporter (SERT; K_is = 477 and 383 nM, respectively). Nisoxetine inhibits norepinephrine uptake and inhibits amphetamine-induced increases in norepinephrine release in mouse brain (EC_{50}s = 2.97 and 0.08 µM, respectively).[2] It reduces increases in locomotor activity induced by d-N-ethylamphetamine, methylphenidate, and cocaine, but not morphine, in mice when administered at a dose of 32 mg/kg.[3] Nisoxetine (0.5 mg/kg i.v.) also reduces cataplexy in narcoleptic dogs.[4]

References

1. Torres, G.E., Gainetdinov, R.R., and Caron, M.G. Plasma membrane monoamine transporters: Structure, regulation and function. *Nat. Rev. Neurosci.* **4(1)**, 13-25 (2003).
2. Tyler, T.D. and Tessel, R.E. Amphetamine's locomotor-stimulant and noreprinephrine-releasing effects: Evidence for selective antagonism by nisoxetine. *Psychopharmacology (Berl)* **64(3)**, 291-296 (1979).
3. Tyler, T.D. and Tessel, R.E. Norepinephrine uptake inhibitors as biochemically and behaviorally selective antagonists of the locomotor stimulation induced by indirectly acting sympathomimetic aminetic amines in mice. *Psychopharmacology (Berl)* **69(1)**, 27-34 (1980).
4. Foutz, A.S., Delashaw, J.B., Jr., Guilleminault, C., *et al.* Monoaminergic mechanisms and experimental cataplexy. *Ann. Neurol.* **10(4)**, 369-376 (1981).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM