

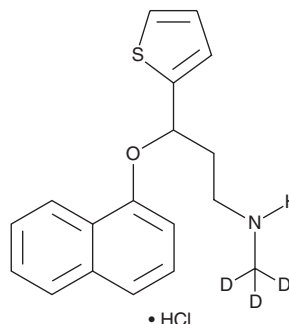
PRODUCT INFORMATION



Duloxetine-d₃ (hydrochloride)

Item No. 25229

CAS Registry No.: 1188266-11-6
Formal Name: N-(methyl-d₃)-3-(naphthalen-1-yloxy)-3-(thiophen-2-yl)propan-1-amine, monohydrochloride
Synonym: LY248686-d₃
MF: C₁₈H₁₆D₃NOS • HCl
FW: 336.9
Chemical Purity: ≥98% (Duloxetine)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₃); ≤1% d₀
Supplied as: A solid
Storage: 4°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Duloxetine-d₃ (hydrochloride) is intended for use as an internal standard for the quantification of duloxetine (Item No. 14317) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Description

(S)-Duloxetine is a potent inhibitor of serotonin and norepinephrine reuptake (K_i s = 4.6 and 15.6 nM, respectively, for rat synaptosomes).¹ It also inhibits dopamine reuptake (K_i = 369 nM). (S)-Duloxetine suppresses spontaneous firing activity *in vivo* in the dorsal raphe and locus coeruleus (ED₅₀s = 99 and 475 µg/kg, respectively).² It also decreases immobility time and increases latency to first immobility in the forced swim test in mice when administered at doses of 16 and 32 mg/kg.³ Formulations containing (S)-duloxetine have been used in the treatment of major depressive disorder, generalized anxiety disorder, chronic neuropathic and musculoskeletal pain, and fibromyalgia.

References

1. Wong, D.T., Bymaster, F.P., Mayle, D.A., *et al.* LY248686, a new inhibitor of serotonin and norepinephrine uptake. *Neuropsychopharmacology* **8(1)**, 23-33 (1993).
2. Kasamo, K., Blier, P., and De Montigny, C. Blockade of the serotonin and norepinephrine uptake processes by duloxetine: *In vitro* and *in vivo* studies in the rat brain. *J. Pharmacol. Exp. Ther.* **277(1)**, 278-286 (1996).
3. Castagné, V., Porsolt, R.D., and Moser, P. Use of latency to immobility improves detection of antidepressant-like activity in the behavioral despair test in the mouse. *Eur. J. Pharmacol.* **616(1-3)**, 128-133 (2009).

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.

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