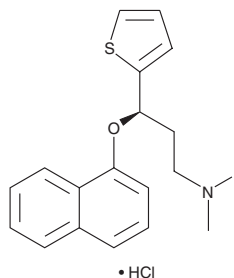


PRODUCT INFORMATION

(R)-Duloxetine (hydrochloride)

Item No. 46209

CAS Registry No.: 910138-96-4
Formal Name: N-methyl-γR-(1-naphthalenyloxy)-2-thiophenepropanamine, monohydrochloride
Synonym: LY248686
MF: C₁₈H₁₉NOS • HCl
FW: 333.9
Purity: ≥98%
Supplied as: A 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

(R)-Duloxetine (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the (R)-duloxetine (hydrochloride) in the solvent of choice, which should be purged with an inert gas. (R)-Duloxetine (hydrochloride) is sparingly soluble (1-10 mg/ml) in ethanol and DMSO.

Description

(R)-Duloxetine is a serotonin and norepinephrine reuptake inhibitor (SNRI) and voltage-gated sodium channel inhibitor.^{1,2} It selectively inhibits neurotransmitter reuptake in HEK cells expressing the serotonin transporter (SERT) or norepinephrine transporter (NET; IC₅₀s = 2.6 and 13.2 nM, respectively) over cells expressing the dopamine transporter (DAT; IC₅₀ = 809 nM).¹ It also selectively inhibits inactivated over resting voltage-gated sodium channels in GH3 rat pituitary cells (IC₅₀s = 5.82 and 33.8 μM, respectively).² Subcutaneous administration of (R)-duloxetine (2 mg) reduces allodynia and hyperalgesia in a rat model of postoperative pain induced by skin incision plus extension (SIE).

References

1. Cashman, J.R. and Ghirmai, S. Inhibition of serotonin and norepinephrine reuptake and inhibition of phosphodiesterase by multi-target inhibitors as potential agents for depression. *Bioorg. Med. Chem.* **17(19)**, 6890-6897 (2009).
2. Wang, C.-F., Russell, G., Wang, S.-Y., et al. R-Duloxetine and N-methyl duloxetine as novel analgesics against experimental postincisional pain. *Anesth. Analg.* **122(3)**, 719-729 (2016).

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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