



## Product Information

**Product ID** D8145  
**CAS No.** 136434-34-9  
**Chemical Name** (+)-(S)-N-Methyl-3-(naphthalen-1-yloxy)-3-(thiophen-2-yl)propan-1-amine hydrochloride

**Synonym** LY-248686 hydrochloride, Cymbalta, Ariclaime

**Formula** C<sub>18</sub>H<sub>19</sub>NOS • HCl

**Formula Wt.** 333.88

**Melting Point**

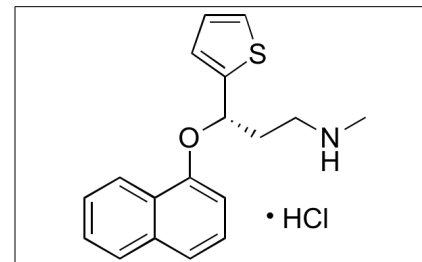
**Purity** ≥99%

**Solubility** Soluble in water (5 mg/ml), methanol, DMSO (67 mg/ml at 25° C), and ethanol (<1 mg/ml at 25° C)

**Store Temp** Ambient

**Ship Temp** Ambient

**Description** Duloxetine hydrochloride is a competitive inhibitor of serotonin and norepinephrine transporters (SERT, NET) that is clinically used to treat depression, anxiety, neuropathy, fibromyalgia, and stress urinary incontinence. Duloxetine's inhibition of neurotransmitter reuptake alters downstream signaling mediated by NMDA receptors and NO as well. The inhibitory activity of this compound on neurotransmitter reuptake is related to its antidepressant and anxiolytic characteristics. The effects of duloxetine as a treatment for neuropathy and fibromyalgia, however, are likely due to its antagonist activity at voltage-gated Nav1.7 Na<sup>+</sup> channels, which are involved in fibromyalgia and pain signaling.



**Bulk quantities available upon request**

Product ID	Size
D8145	100 mg
D8145	250 mg
D8145	1 g

**References** Wang SY, Calderon J, Kuo Wang G. Block of neuronal Na<sup>+</sup> channels by antidepressant duloxetine in a state-dependent manner. *Anesthesiology*. 2010 Sep;113(3):655-65. PMID: 20693878.

Carter NJ, McCormack PL. Duloxetine: a review of its use in the treatment of generalized anxiety disorder. *CNS Drugs*. 2009;23(6):523-41. PMID: 19480470.

Apparsundaram S, Stockdale DJ, Henningsen RA, et al. Antidepressants targeting the serotonin reuptake transporter act via a competitive mechanism. *J Pharmacol Exp Ther*. 2008 Dec;327(3):982-90. PMID: 18801947.

Müller N, Schennach R, Riedel M, et al. Duloxetine in the treatment of major psychiatric and neuropathic disorders. *Expert Rev Neurother*. 2008 Apr;8(4):527-36. PMID: 18416656.

Sweeney DD, Chancellor MB. Treatment of stress urinary incontinence with duloxetine hydrochloride. *Rev Urol*. 2005 Spring;7(2):81-6. PMID: 16985814.

**Caution:** This product is intended for laboratory and research use only. It is not for human or drug use.