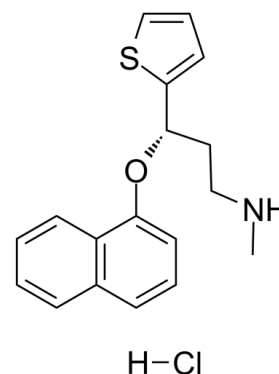


Data Sheet

Product Name:	Duloxetine (hydrochloride)
Cat. No.:	CS-1993
CAS No.:	136434-34-9
Molecular Formula:	C ₁₈ H ₂₀ CINOS
Molecular Weight:	333.88
Target:	Serotonin Transporter
Pathway:	Neuronal Signaling
Solubility:	DMSO : ≥ 100 mg/mL (299.51 mM); H ₂ O : 5 mg/mL (14.98 mM); Need ultrasonic)



BIOLOGICAL ACTIVITY:

Duloxetine hydrochloride ((S)-Duloxetine hydrochloride) is a **serotonin-norepinephrine reuptake inhibitor (SNRI)** with a K_i of 4.6 nM, used for treatment of major depressive disorder and generalized anxiety disorder (GAD)^{[1][2]}. **In Vitro:** Duloxetine ((S)-Duloxetine hydrochloride) (sold under the brand names Cymbalta, Aricclaim, Xeristar, Yentreve, Duzela, Dulane) is a serotonin-norepinephrine reuptake inhibitor(SNRI) manufactured and marketed by Eli Lilly. It is prescribed for major depressive disorder and generalized anxiety disorder (GAD). Duloxetine also has approval for use in osteoarthritis and musculoskeletal pain. Duloxetine failed the US approval for stress urinary incontinence amidst concerns over liver toxicity and suicidal events; however, it was approved for this indication in Europe, where it is recommended as an add-on medication in stress urinary incontinence instead of surgery. It can also relieve the symptoms of painful peripheral neuropathy, particularly diabetic neuropathy, and it is used to control the symptoms of fibromyalgia. The main uses of duloxetine are in major depressive disorder, general anxiety disorder, stress urinary incontinence, painful peripheral neuropathy, fibromyalgia, and chronic musculoskeletal pain associated with osteoarthritis and chronic lower back pain. It is being studied for various other indications^{[1][2]}.

References:

[1]. Redrobe JP, et al. Dose-dependent noradrenergic and serotonergic properties of venlafaxine in animal models indicative of antidepressant activity. *Psychopharmacology (Berl)*. 1998 Jul;138(1):1-8.

[2]. Deecher DC, et al. Desvenlafaxine succinate: A new serotonin and norepinephrine reuptake inhibitor. *J Pharmacol Exp Ther*. 2006 Aug;318(2):657-65. Epub 2006 May 4.

CAIndexNames:

2-Thiophenepropanamine, N-methyl-γ-(1-naphthalenyloxy)-, hydrochloride (1:1), (γS)-

SMILES:

CNCC[C@H](OC1=CC=CC2=C1C=CC=C2)C3=CC=CS3.[H]Cl

Caution: Product has not been fully validated for medical applications. For research use only.

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