

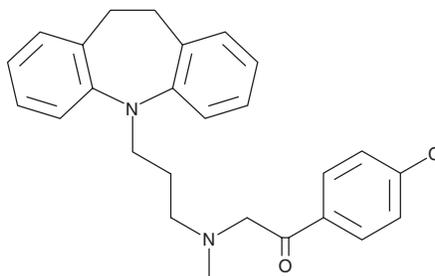
# PRODUCT INFORMATION



## Lofepramine

Item No. 20813

**CAS Registry No.:** 23047-25-8  
**Formal Name:** 1-(4-chlorophenyl)-2-[[3-(10,11-dihydro-5H-dibenz[b,f]azepin-5-yl)propyl]methylamino]-ethanone  
**Synonym:** Lopramine  
**MF:** C<sub>26</sub>H<sub>27</sub>ClN<sub>2</sub>O  
**FW:** 419.0  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 251 nm  
**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

Lofepramine is supplied as a crystalline solid. A stock solution may be made by dissolving the lofepramine in the solvent of choice, which should be purged with an inert gas. Lofepramine is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of lofepramine in these solvents is approximately 3 and 10 mg/ml, respectively.

Lofepramine is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, lofepramine should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Lofepramine has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Lofepramine is a first generation tricyclic antidepressant that is extensively metabolized to desipramine.<sup>1</sup> It potently inhibits serotonin and norepinephrine transporters (K<sub>d</sub>s = 70 and 5.4 nM, respectively) and less potently antagonizes serotonin, histamine, and muscarinic receptors.<sup>2-4</sup>

### References

1. Lancaster, S.G. and Gonzalez, J.P. Lofepramine. A review of its pharmacodynamic and pharmacokinetic properties, and therapeutic efficacy in depressive illness. *Drugs* **37(2)**, 123-140 (1989).
2. Tatsumi, M., Groshan, K., Blakely, R.D., *et al.* Pharmacological profile of antidepressants and related compounds at human monoamine transporters. *Eur. J. Pharmacol.* **340(2-3)**, 249-258 (1997).
3. Cusack, B., Nelson, A., and Richelson, E. Binding of antidepressants to human brain receptors: Focus on newer generation compounds. *Psychopharmacology (Berl)* **114(4)**, 559-565 (1994).
4. Stanton, T., Bolden-Watson, C., Cusack, B., *et al.* Antagonism of the five cloned human muscarinic cholinergic receptors expressed in CHO-K1 cells by antidepressants and antihistaminics. *Biochem. Pharmacol.* **45(11)**, 2352-2354 (1993).

#### 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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