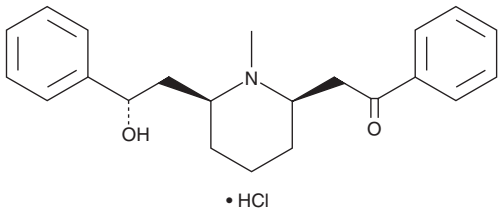
PRODUCT INFORMATION

(–)-Lobelin (hydrochloride)

Item No. 29526

CAS Registry No.:	134-63-4
Formal Name:	2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2-piperidinyl]-1-phenyl-ethanone, monohydrochloride
Synonyms:	(–)-α-Lobeline, VUF 10751
MF:	$C_{22}H_{27}NO_2$ • HCl
FW:	373.9
Purity:	≥95%
UV/Vis.:	λ_{max}: 245 nm
Supplied as:	A solid
Storage:	-20°C
Stability:	≥2 years
Item Origin:	Synthetic



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

Laboratory Procedures

(–)-Lobelin (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the (–)-lobelin (hydrochloride) in the solvent of choice, which should be purged with an inert gas. (–)-Lobelin (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of (–)-lobelin (hydrochloride) in ethanol is approximately 2 mg/ml and approximately 10 mg/ml in DMSO and DMF.

(–)-Lobelin (hydrochloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, (–)-lobelin (hydrochloride) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. (–)-Lobelin (hydrochloride) has a solubility of approximately 0.3 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

(–)-Lobeline is an alkaloid that has been found in *Lobelia* and has diverse biological activities.[1-3] It binds to nicotinic acetylcholine receptors (nAChRs) in rat brain homogenates (K_i = 4 nM) and has antinociceptive effects in the tail-flick assay in mice.[1] (–)-Lobeline (0.3 and 0.9 mg/kg) reduces the number of errors in a repeated acquisition procedure in the radial arm maze in rats.[2] It also decreases immobility time in the forced swim test and feeding latency in the novelty suppressed feeding test, indicating antidepressant-like activity, in mice when administered at doses of 1 and 4 mg/kg.[3]

References

1. Flammia, D., Dukat, M., Damaj, M.I., *et al.* Lobeline: Structure-affinity investigation of nicotinic acetylcholinergic receptor binding. *J. Med. Chem.* **42(18)**, 3726-3731 (1999).
2. Levin, E.D. and Christopher, C.N. Lobeline-induced learning improvement of rats in the radial-arm maze. *Pharmacol. Biochem. Behav.* **76(1)**, 133-139 (2003).
3. Roni, M.A. and Rahman, S. Antidepressant-like effects of lobeline in mice: Behavioral, neurochemical, and neuroendocrine evidence. *Prog. Neuropsychopharmacol. Biol. Psychiatry* **41**, 44-51 (2013).

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