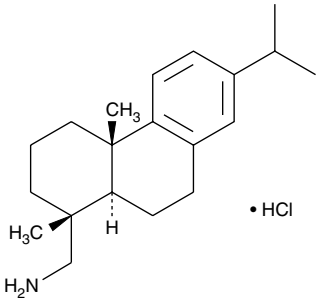
Product Information

Leelamine (hydrochloride)

Item No. 10008614

CAS Registry No.: 16496-99-4
Formal Name: 1R,2,3,4,4aS,9,10,10aR-octahydro-1,4a-dimethyl-7-(1-methylethyl)-1-phenanthrenemethanamine, monohydrochloride
Synonym: Dehydroabietylamine
MF: $C_{20}H_{31}N \bullet HCl$
FW: 321.9
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid



Laboratory Procedures

For long term storage, we suggest that leelamine (hydrochloride) be stored as supplied at -20°C. It should be stable for at least two years.

Leelamine (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the leelamine (hydrochloride) in an organic solvent purged with an inert gas. Leelamine (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of leelamine (hydrochloride) in these solvents is approximately 20 mg/ml.

Leelamine (hydrochloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, leelamine (hydrochloride) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Leelamine (hydrochloride) has a solubility of approximately 0.15 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.

Leelamine is a diterpene molecule whose name derives from the Sanskrit word *leela* which means "play". It has weak affinity for the human central cannabinoid (CB_1) and peripheral cannabinoid (CB_2) receptors, exhibiting 20% displacement of [^{3}H]-CP55940 at a concentration of 10 µM.[1] Leelamine inhibits pyruvate dehydrogenase kinase (PDK) with and IC_{50} value of 9.5 µM.[2] Derivatives of leelamine exhibit anti-inflammatory activity and show moderate inhibition of phospholipase A_2 activity from a variety of sources.[3]

References

1. Martin, B.R. Personal Communication.
2. Aicher, T.D., Damon, R.E., Koletar, J., *et al.* Triterpene and diterpene inhibitors of pyruvate dehydrogenase kinase (PDK). *Biooganic & Medicinal Chemistry Letters* **9**, 2223-2228 (1999).
3. Wilkerson, W., DeLucca, I., Galbraith, W., *et al.* Antiinflammatory phospholipase-A_2 inhibitors. I. *Eur. J. Med. Chem.* **26**, 667-676 (1991).

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