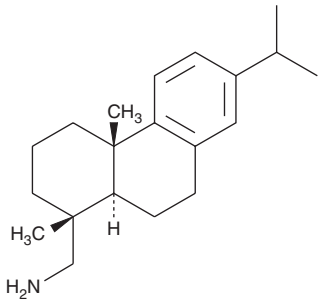
PRODUCT INFORMATION

Leelamine

Item No. 10006148

CAS Registry No.:	1446-61-3
Formal Name:	1R,2,3,4,4aS,9,10,10aR-octahydro-1,4a-dimethyl-7-(1-methylethyl)-1-phenanthrenemethanamine
Synonyms:	Dehydroabietylamine, NSC 2955
MF:	$C_{20}H_{31}N$
FW:	285.5
Purity:	≥98%
Supplied as:	A solution in ethanol
Storage:	-20°C
Stability:	≥2 years



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

Laboratory Procedures

Leelamine is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO and dimethyl formamide purged with an inert gas can be used. The solubility of leelamine in these solvents is approximately 30 mg/ml.

Leelamine is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of leelamine should be diluted with the aqueous buffer of choice. Leelamine has a solubility of 0.25 mg/ml in a 1:3 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Leelamine is a diterpene amine that has been found in gum resin and has diverse biological activities.[1-3] It inhibits pyruvate dehydrogenase kinase (PDHK; IC_{50} = 9.5 µM).[4] Leelamine is active against the plant pathogenic fungus *B. cinerea* (EC_{50} = 70 µM).[2] It induces apoptosis in UACC-903 and 1205Lu melanoma cell lines when used at a concentration of 3 µM.[3] Leelamine (100 and 300 µmol/kg per day) reduces blood glucose levels in an *ob/ob* mouse model of type II diabetes.[1]

References

1. Aicher, T.D., Damon, R.E., Koletar, J., *et al.* Triterpene and diterpene inhibitors of pyruvate dehydrogenase kinase (PDK). *Bioorg. Med. Chem. Lett.* **9(15)**, 2223-2228 (1999).
2. Yoshida, M., Kawasaki, A., Yukimoto, M., *et al.* Detection of the effects of fungicides on the cell membrane by proton nuclear magnetic resonance spectroscopy. *Pest. Biochem. Phys.* **38(2),** 172-177 (1990).
3. Kuzu, O.F., Gowda, R., Sharma, A., *et al.* Leelamine mediates cancer cell death through inhibition of intracellular cholesterol transport. *Mol. Cancer Ther.* **13(7),** 1690-1703 (2014).
4. Aicher, T.D., Damon, R.E., Koletar, J., *et al.* Triterpene and diterpene inhibitors of pyruvate dehydrogenase kinase (PDK). *Bioorg. Med. Chem. Lett.* **9(15),** 2223-2228 (1999).

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