

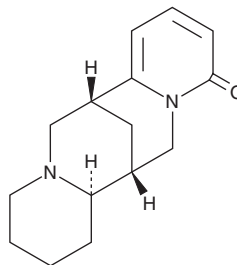
PRODUCT INFORMATION



Anagryne

Item No. 31169

CAS Registry No.: 486-89-5
Formal Name: (7R,14R,14aR)-1,3,4,6,7,13,14,14a-octahydro-7,14-methano-2H,11H-dipyrido[1,2-a:1',2'-e][1,5]diazocin-11-one
Synonym: Monolupine
MF: C₁₅H₂₀N₂O
FW: 244.3
Purity: ≥95%
UV/Vis.: λ_{max}: 235, 311 nm
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Plant/*Lupinus albus*



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

Laboratory Procedures

Anagryne is supplied as a solid. A stock solution may be made by dissolving the anagryne in the solvent of choice, which should be purged with an inert gas. Anagryne is soluble in organic solvents such as DMSO and methanol.

Description

Anagryne is an alkaloid that has been found in *L. albus* and has diverse biological activities.¹⁻³ It binds to muscarinic and nicotinic acetylcholine receptors (AChRs) with IC₅₀ values of 132 and 2,096 μM, respectively, in radioligand binding assays using pig brain membranes, which endogenously express high levels of the receptors.¹ It inhibits proliferation of TE 671 and SH-SY5Y cancer cells (EC₅₀s = 18.1 and 19.1 μM, respectively).³ Maternal ingestion of anagryne during gestation is associated with the teratogenic condition crooked calf disease in cattle.⁴

References

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- Matsuda, K., Kimura, K., Komai, K., *et al.* Nematicidal activities of (-)-N-methylcytisine and (-)-anagryne from *Sophora flavescens* against pine wood nematodes. *Agr. Biol. Chem.* **53(8)**, 2287-2288 (1989).
- Green, B.T., Lee, S.T., Panter, K.E., *et al.* Actions of piperidine alkaloid teratogens at fetal nicotinic acetylcholine receptors. *Neurotoxicol. Teratol.* **32(3)**, 383-390 (2010).
- Keeler, R.F., Cronin, E.H., and Shupe, J.L. Lupin alkaloids from teratogenic and nonteratogenic lupins. IV. Concentration of total alkaloids, individual major alkaloids, and the teratogen anagryne as a function of plant part and stage of growth and their relationship to crooked calf disease. *J. Toxicol. Environ. Health* **1(6)**, 899-908 (1976).

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.

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