

PRODUCT INFORMATION



Usaramine

Item No. 34894

CAS Registry No.: 15503-87-4

Formal Name: (3E,5R,6S,14aR,14bR)-3-ethylidene-3,4,5,6,9,11,13,14,14a,14b-decahydro-6-hydroxy-6-(hydroxymethyl)-5-methyl-[1,6]dioxacyclododecino[2,3,4-gh]pyrrolizine-2,7-dione

Synonyms: Mucronatine, *trans*-Retrorsine, (+)-Usaramine

MF: $C_{18}H_{25}NO_6$

FW: 351.4

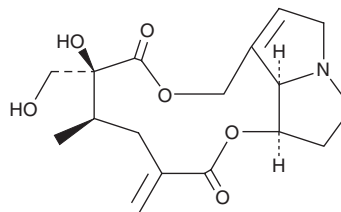
Purity: $\geq 98\%$

Supplied as: A solid

Storage: -20°C

Stability: ≥ 4 years

Item Origin: Plant/*Crotalaria pallida*



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

Laboratory Procedures

Usaramine is supplied as a solid. A stock solution may be made by dissolving the usaramine in the solvent of choice, which should be purged with an inert gas. Usaramine is soluble in the organic solvent DMSO at a concentration of approximately 1 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of usaramine can be prepared by directly dissolving the solid in aqueous buffers. The solubility of usaramine in PBS (pH 7.2) is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Usaramine is a pyrrolizidine alkaloid that has been found in *C. pallida* and has antibacterial and hepatotoxic activities.^{1,2} It reduces biofilm formation by *S. epidermidis* but not *P. aeruginosa* when used at a concentration of 1 mg/ml.¹ Usaramine (0.05, 0.1, and 0.2 mmol/kg) induces liver necrosis in rats.²

References

- da Silva Negreiros Neto, T., Gardner, D., Hallwass, F., *et al.* Activity of pyrrolizidine alkaloids against biofilm formation and *Trichomonas vaginalis*. *Biomed. Pharmacother.* **83**, 323-329 (2016).
- Culvenor, C.C.J., Edgar, J.A., Jago, M.V., *et al.* Hepato- and pneumotoxicity of pyrrolizidine alkaloids and derivatives in relation to molecular structure. *Chem. Biol. Interact.* **12(3-4)**, 299-324 (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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