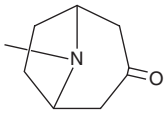
PRODUCT INFORMATION

Tropinone

Item No. 34287

CAS Registry No.:	532-24-1
Formal Name:	8-methyl-8-azabicyclo[3.2.1]octan-3-one
Synonyms:	NSC 118012, Tropanone
MF:	$C_8H_{13}NO$
FW:	139.2
Purity:	≥98%
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

Tropinone is supplied as a solid. A stock solution may be made by dissolving the tropinone in the solvent of choice, which should be purged with an inert gas. Tropinone is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of tropinone in these solvents is approximately 30 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 tropinone can be prepared by directly dissolving the solid in aqueous buffers. The solubility of tropinone in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Tropinone is a polyketide synthase-derived tropane that has been found in *A. belladonna*.[1-3] It is a central intermediate in the biosynthesis of various tropane alkaloids, including (–)-hyoscyamine (Item No. 25644), (+)-hyoscyamine, scopolamine, atropine (Item No. 12008), and cocaine.

References

1. Bedewitz, M.A., Jones, A.D., D'Auria, J.C., *et al.* Tropinone synthesis via an atypical polyketide synthase and P450-mediated cyclization. *Nat. Commun.* **9(1)**, 5281 (2018).
2. Piechowska, K., Mizerska-Kowalska, M., Zdzisińska, B., *et al.* Tropinone-derived alkaloids as potent anticancer agents: Synthesis, tyrosinase inhibition, mechanism of action, DFT calculation, and molecular docking studies. *Int. J. Mol. Sci.* **21(23)**, 9050 (2020).
3. Majewski, M. and Lazny, R. Synthesis of tropane alkaloids *via* enantioselective deprotonation of tropinone. *J. Org. Chem.* **60(18)**, 5825–5830 (1995).

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