

Certificate of Analysis

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Product Name: Oxotremorine M

Catalog No.: 1067

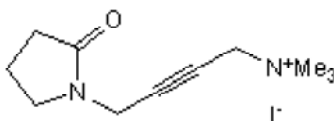
Batch No.: 7

CAS Number: 3854-04-4

IUPAC Name: *N,N,N*-Trimethyl-4-(2-oxo-1-pyrrolidinyl)-2-butyn-1-ammonium iodide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₁H₁₉IN₂O
Batch Molecular Weight: 322.19
Physical Appearance: Beige solid
Solubility: water to 100 mM
Storage: Desiccate at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 100% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	41.01	5.94	8.69
Found	41.03	5.91	8.68

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

bio-techne.com

info@bio-techne.com

techsupport@bio-techne.com

North America

Tel: (800) 343 7475

China

info.cn@bio-techne.com

Tel: +86 (21) 52380373

Europe Middle East Africa

Tel: +44 (0)1235 529449

Rest of World

www.tocris.com/distributors

Tel: +1 612 379 2956

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Description:

Muscarinic receptor agonist. Also directly potentiates NMDA-mediated ion currents.

Physical and Chemical Properties:

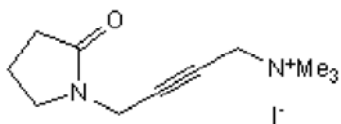
Batch Molecular Formula: C₁₁H₁₉IN₂O

Batch Molecular Weight: 322.19

Physical Appearance: Beige solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Desiccate at -20°C

Solubility & Usage Info:

water to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Zwart *et al* (2017) Oxotremorine-M potentiates NMDA receptors by muscarinic receptor dependent and independent mechanisms. *Biochem.Biophys.Res.Commun.* **495** 481. PMID: 29127015.

Kukkonen *et al* (1996) Functional properties of muscarinic receptor subtypes Hm1, Hm3 and Hm5 expressed in Sf9 cells using the baculovirus expression system. *J.Pharmacol.Exp.Ther.* **279** 593. PMID: 8930161.

Birdsall *et al* (1978) The binding of agonists to brain muscarinic receptors. *Mol.Pharmacol.* **14** 723. PMID: 714021.

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North America

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China

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Europe Middle East Africa

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