

## Certificate of Analysis

[www.tocris.com](http://www.tocris.com)

**Product Name:** Acetylcholine chloride

CAS Number: 60-31-1

IUPAC Name: 2-(Acetyloxy)-*N,N,N*-trimethylethanaminium chloride

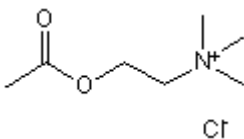
**Catalog No.:** 2809

**Batch No.:** 3

EC Number: 200-468-8

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>7</sub>H<sub>16</sub>ClNO<sub>2</sub>  
**Batch Molecular Weight:** 181.66  
**Physical Appearance:** White solid  
**Solubility:** water to 100 mM  
DMSO to 100 mM  
ethanol to 75 mM  
**Storage:** Desiccate at RT  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**Melting Point:** At 152°C  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure

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

## Product Information

[www.tocris.com](http://www.tocris.com)

**Product Name:** Acetylcholine chloride

**Catalog No.:** 2809

**Batch No.:** 3

CAS Number: 60-31-1

EC Number: 200-468-8

IUPAC Name: 2-(Acetyloxy)-N,N,N-trimethylethanaminium chloride

**Description:**

Endogenous neurotransmitter. Acts at nicotinic and muscarinic acetylcholine receptors.

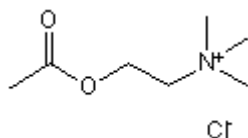
**Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>7</sub>H<sub>16</sub>ClNO<sub>2</sub>.

Batch Molecular Weight: 181.66

Physical Appearance: White solid

**Batch Molecular Structure:**



**Storage:** Desiccate at RT. This product is packaged under an inert atmosphere.

**Solubility & Usage Info:**

water to 100 mM

DMSO to 100 mM

ethanol to 75 mM

CAUTION - This product is very hygroscopic and we recommend that it is desiccated upon arrival.

**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:**

**Wessler et al** (1999) The cholinergic 'pitfall': acetylcholine, a universal cell molecule in biological systems, including humans. *Clin.Exp.Pharmacol.Physiol.* **26** 198. PMID: 10081614.

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