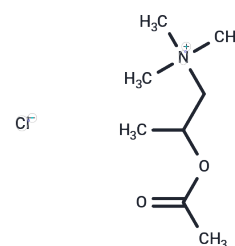


## Methacholine Chloride

## Chemical Properties

|                   |   |
|-------------------|---|
| CAS No. :         | 62-51-1   |
| Formula:          | C <sub>8</sub> H <sub>18</sub> ClNO <sub>2</sub>  |
| Molecular Weight: | 195.69  |
| Storage:          | Powder: -20°C for 3 years   In solvent: -80°C for 1 year<br>Actual storage temperature shall be subject to the COA. |



## Biological Description

|               |  |
|---------------|--|
| Description   | Methacholine Chloride (Acetyl- $\beta$ -methylcholine chloride) is a quaternary ammonium parasympathomimetic agent with the muscarinic actions of ACETYLCHOLINE. It is hydrolyzed by ACETYLCHOLINESTERASE at a considerably slower rate than ACETYLCHOLINE and is more resistant to hydrolysis by nonspecific CHOLINESTERASES so that its actions are more prolonged. It is used as a parasympathomimetic bronchoconstrictor agent and as a diagnostic aid for bronchial asthma. |
| Targets(IC50) | AChR   |

## Solubility Information

|                     |   |
|---------------------|---|
| Solubility          | DMSO: 194 mg/mL (991.36 mM),Sonication is recommended.<br>H <sub>2</sub> O: 100 mg/mL (511.01 mM),Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble)   |
| In vivo Formulation | 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (10.22 mM),Sonication is recommended.<br><i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i> |

### Preparing Stock Solutions

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|       | 1mg       | 5mg        | 10mg       |
|-------|-----------|------------|------------|
| 1 mM  | 5.1101 mL | 25.5506 mL | 51.1012 mL |
| 5 mM  | 1.022 mL  | 5.1101 mL  | 10.2202 mL |
| 10 mM | 0.511 mL  | 2.5551 mL  | 5.1101 mL  |
| 50 mM | 0.1022 mL | 0.511 mL   | 1.022 mL   |

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

#### Reference

Liu PS, et al. Eur J Pharmacol. 2011 Jan 10;650(1):34-40.

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