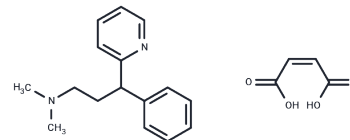


## Pheniramine maleate

## Chemical Properties

|                   |                                                                                              |
|-------------------|----------------------------------------------------------------------------------------------|
| CAS No. :         | 132-20-7                                                                                     |
| Formula:          | C <sub>16</sub> H <sub>20</sub> N <sub>2</sub> ·C <sub>4</sub> H <sub>4</sub> O <sub>4</sub> |
| Molecular Weight: | 356.42                                                                                       |
| Appearance:       | no data available                                                                            |
| Storage:          | Powder: -20°C for 3 years   In solvent: -80°C for 1 year                                     |



## Biological Description

|               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description   | Pheniramine maleate (Trimetose), an alkylamine derivative with antihistaminic and vasodilatory properties, binds to histamine H1 receptors, thereby inhibiting phospholipase A2 and production of the endothelium-derived relaxing factor, nitric oxide.                                                                                                                                                                                                       |
| Targets(IC50) | 5-HT Receptor,Histamine Receptor                                                                                                                                                                                                                                                                                                                                                                                                                               |
| In vivo       | Pheniramine maleate binds to histamine H1 receptors, which inhibits the production of phospholipase A2 and the endothelium-derived relaxing factor NO. This leads to a reduction in the activation of guanylate cyclase due to NO deficiency, resulting in decreased levels of cyclic GMP (cGMP). Consequently, this suppresses the contraction of smooth muscle tissues, reduces capillary permeability, and diminishes histamine-induced allergic responses. |

## Solubility Information

|            |                                                                                                                                                                             |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Solubility | H <sub>2</sub> O: 65 mg/mL (182.4 mM),<br>Ethanol: 66 mg/mL (185.2 mM),<br>DMSO: 66 mg/mL (185.2 mM),<br>( $< 1$ mg/ml refers to the product slightly soluble or insoluble) |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Preparing Stock Solutions

|       | 1mg       | 5mg        | 10mg       |
|-------|-----------|------------|------------|
| 1 mM  | 2.8057 mL | 14.0284 mL | 28.0568 mL |
| 5 mM  | 0.5611 mL | 2.8057 mL  | 5.6114 mL  |
| 10 mM | 0.2806 mL | 1.4028 mL  | 2.8057 mL  |
| 50 mM | 0.0561 mL | 0.2806 mL  | 0.5611 mL  |

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.

Reference

Moharana AK, et al. Indian J Physiol Pharmacol. 2000, 44(2), 153-160.

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