

# Putrescine dihydrochloride

Cell Culture Tested

**Product Code: TC163**

## Product Description :

Molecular formula :  $C_4H_{12}N_2 \cdot 2HCl$

Molecular Weight : 161.07

CAS No: 333-93-7

Synonym : 1,4-Butanediamine dihydrochloride, 1,4-Diaminobutane dihydrochloride, Tetramethylenediamine dihydrochloride

Putrescine is synthesized in small quantities by healthy living cells by the action of ornithine decarboxylase. The polyamines of which putrescine is one of the simplest, appear to be growth factors necessary for cell division.

Putrescine dihydrochloride is a precursor of spermidine. It is an activator of NMDA (N-methyl D-aspartate). It can bind to the polyamine modulatory site of NMDA receptor and potentiate NMDA-induced currents. Polyamines belong to a group of aliphatic amines that are selective and act on different ion channels.

Putrescine dihydrochloride is also used for the production of GABA, inhibitory neurotransmitter in vertebral brain.

## Directions :

### Preparation Instructions:

Putrescine dihydrochloride is soluble at 10gm in 100ml of water. The solution is sterilized by filtering through a sterile membrane filter with porosity of 0.22 micron or less.

## Quality Control:

### Appearance

White crystalline powder.

### Solubility

Clear colorless solution at 10gm in 100ml of water.

### Water (KF)

NMT 3%

### Assay

98.00 %

### Cell Culture Test

Passes

## Storage and Shelf Life:

Store at 15-30°C away from bright light.

Shelf life is 48 months.

Use before expiry date given on the product label.

## Disclaimer :

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