

TECHNICAL SHEET:

# **Lysosyme**

Ref : AE02

**Storage** : at -20°C for one year.

**Quantity** : 0.5 g

## **Description :**

Lysozyme is an enzyme that cleaves the  $\beta(1\rightarrow4)$  glycosidic bonds between N-acetylmuramic acid and N-acetyl-D-glucosamine residues in peptidoglycan, which is the major component of gram- positive bacterial cell walls. This action leads to cell lysis and death, making lysozyme a key antimicrobial agent, especially in saliva, human milk, and mucus.

- Highly effective against gram-positive bacteria.
- Used at a typical concentration range of 0.1 to 1 mg/mL.
- Optimal activity at pH 6.2, but active across a wide range of pH values.

## **Source :**

Purified from chicken egg whites.

## **Applications :**

- Used to lyse bacterial cells for DNA and RNA extraction.
- Helps in studying cell wall structure and composition.
- Acts as a mild preservative in food products due to its antibacterial properties.
- Utilized in the preparation of spheroplasts from yeast and bacteria.