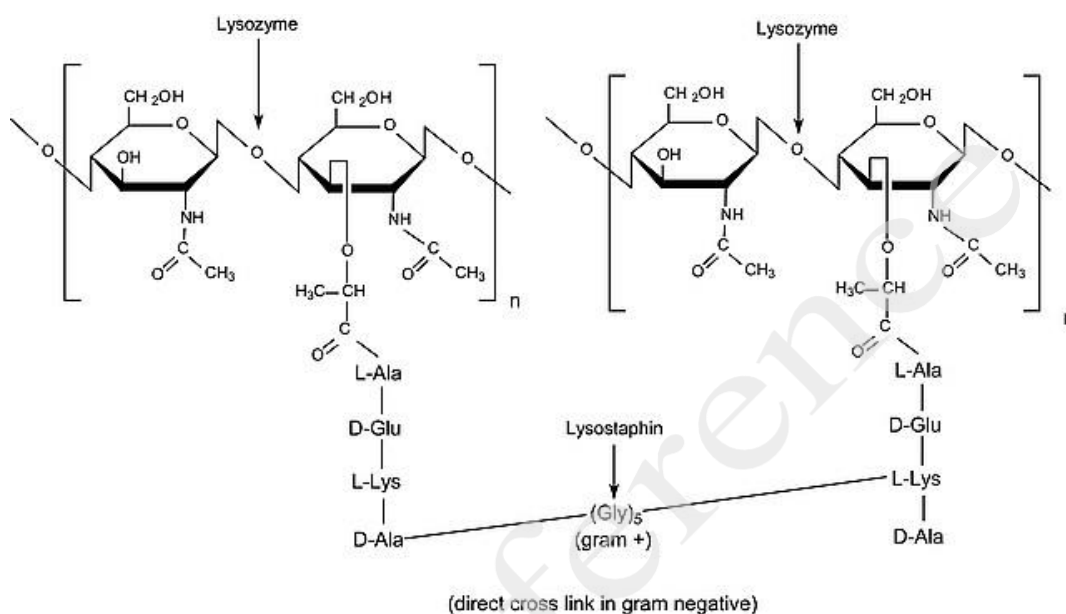


Lysozyme from chicken egg white [12650-88-3]

#Cat: NB-42-01516-5g Size: 5g

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Peptidoglycan

Product Information

Synonym(s):	Mucopeptide N-acetylmuramoylhydrolase, Muramidase
CAS No.:	[12650-88-3]
Physical Appearance:	lyophilized powder
MDL Number:	MFCD00131557
Activity:	20,000 U/mg
Storage:	-20°C

Biological activity

Lysozyme hydrolyzes $\beta(1\rightarrow4)$ linkages between N-acetylmuramic acid and N-acetyl-D-glucosamine residues in peptidoglycan and between N-acetyl-D-glucosamine residues in chitodextrin. Gram-positive cells are quite susceptible to this hydrolysis as their cell walls have a high proportion of peptidoglycan. Gram-

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negative bacteria are less susceptible due to the presence of an outer membrane and a lower proportion of peptidoglycan. However, these cells may be hydrolyzed in the presence of EDTA that chelates metal ions in the outer bacterial membrane.

The enzyme is active over a broad pH range (6.0 to 9.0). At pH 6.2, maximal activity is observed over a wider range of ionic strengths (0.02 to 0.100 M) than at pH 9.2 (0.01 to 0.06 M).

Lysozyme from chicken egg white is a versatile enzyme with unique properties that make it effective for various applications, including bacterial cell wall breakdown, genomic DNA extraction, and external standard for mass analysis. It is reliable, active over a broad pH range, and available in various packaging sizes.

Application

Lysozyme from chicken egg white has been used for the extraction of genomic DNA from bacterial cells. It has been used as an external standard for MALDI-TOF (matrix assisted laser desorption ionization-time of flight) mass analysis. Enzyme breaks down the cell walls of bacteria; used to prepare spheroplasts.

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