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Lysozyme

Cat. No. : CW0887 (100 mg)

Shipping and Storage : Storage at -20°C

Components

Component	CW0887 (100 mg)
Lysozyme	100 mg

Principle

Lysozyme is an enzyme that destroys bacterial cell walls and improves the efficiency of protein or nucleic acid extraction. By hydrolyzing the β-1,4 glycosidic bond between n-acetyl-muricylic acid and n-acetyl-glucosamine in cell wall, the insoluble mucopolysaccharide is decomposed into soluble glycopeptides, and the contents of the broken cell wall are induced to escape and dissolve bacteria. Gram-positive bacteria (G+) are very sensitive to lysozyme because of their high content of peptidoglycan in their cell walls. Conversely, Gram-negative bacteria (G-) are less sensitive. When EDTA is contained in the system, Ca2+ in the bacterial outer membrane can be chelated and G- sensitivity can be improved. In addition, when lysozyme is used to crack Escherichia coli, the efficiency can be improved significantly when nuclease such as DNase Ⅰ is added. This product is suitable for bacterial cell wall degradation, protoplasmic preparation, bacteriolysis, sample preparation before nucleic acid separation and pharmacological research.

Preparation and important notes before the experiment

1. Lysozyme should not be used on fungi.
2. For your safety and health, please wear lab coats and disposable gloves.
3. This product is for scientific research only.

Preparation and important notes before the experiment

1. The buffer formulation for lysozyme dilution is 20 mM Tris, pH8.0; 2 mM Na2-EDTA, pH8.0; 1.2% Triton X-100. Sterilization at 121°C for 20 minutes.
2. Dissolve the appropriate amount of lysozyme using the configured buffer and the final concentration can be configured according to the experimental requirements. Bacterial cell wall degradation is performed by applying 100 μL of lysozyme solution to thoroughly resuspend the bacteria (the maximum amount of bacteria should not exceed 1×109) and incubate at room temperature. The specific formula and incubation time are as follows:

Lysozyme	Final concentration	Incubation time
G- Bacteria	400 μg/mL	3-5 min
G+ Bacteria	3 mg/mL	5-10 min