



Lysozyme

Nucleic acid preparation, Protein purification from inclusion bodies, Hydrolysis of chitin and bacterial cell walls

Product Description

Name :	Lysozyme, Chicken egg white Mucopeptide N-acetylmuramoylhydrolase, Muramidase
Catalog Number :	136178, 1g
CAS :	[9001-63-2]
Molecular Weight :	14,3 kDa
Properties:	Optimal pH : 6.0-9.0 Activators : EDTA Inhibitors : SDS, Alcohols, N-acetylc-D-glucosamine, Oxidizing agents

Storage: -20°C

Introduction

Lysozyme hydrolyzes preferentially the β -1,4 glucosidic linkages between N-acetylmuramic acid and N-acetylglucosamine which occur in the mucopeptide cell wall structure of certain microorganisms, such as *Micrococcus lysodeikticus* (Arnheim *et al.* 1972).

Lysozyme has been used for lysing *E. coli* and *Streptomyces* for extraction purposes such as extracting group specific antigen. It would appear that lysozyme may act as a germinative agent of bacterial spores. The enzyme is often used for lysing bacterial cells by hydrolyzing the peptidoglycan present in the cell walls. Used to prepare spheroplasts.

Technical and Scientific Information

For isolation of plasmid-DNA, the working concentration is 200 μ g/300 μ l. To increase the plasmid yield (approx. 5 - 10 %) in maxiprep, lysozyme may be added.

Another application is the lysis of bacteria for the preparation of bacterial RNA. In this case the working concentration is 40 μ g/ml (stock solution 50 mg/ml).

Other protocols may be found in the literature.

References

- Sambrook, J. & Russell, D.W. Molecular Cloning: A Laboratory Manual, 3rd Edition. pp. A1.8+4.51. Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY. (2001)
- Hindenburg A. *et al.*, Isozymes of Lysozyme in Leukocytes and Egg White: Evidence for the Species-Specific Control of Egg-White Lysozyme Synthesis, *Proc Natl Acad Sci U S A.* 71(5): 1653-1657 (1974)
- Arnheim N. *et al.*, Chemical studies on the Enzymatic Specificity of Goose Egg White Lysozyme, *JBC* Vol. 248, No 1 pp. 233-236 (1973) [article](#)

Ordering information

Catalog size quantities and prices may be found at <http://www.interchim.com>.

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