



Product Datasheet

Product Name	Lysozyme Human Recombinant
Cata No	CB501371
Source	<i>Rice Grain</i>
Synonyms	Lysozyme C, EC 3.2.1.17, LYZ, LZM, 1,4-beta-N-acetylmuramidase C, Lysozyme.

Description

Lysozyme is an enzyme found in egg white, tears, and other secretions. Lysozyme is responsible for attacking & breaking down the polysaccharide walls of many kinds of bacteria and thus it provides some protection against infection. Bacteria build a tough skin of carbohydrate chains, interlocked by short peptide strands, that braces their delicate membrane against the cell's high osmotic pressure. Lysozyme breaks these carbohydrate chains, destroying the structural integrity of the cell wall. The bacteria burst under their own internal pressure. Lysozyme (muramidase) hydrolyzes preferentially the β -1,4 glucosidic linkages between N-acetylmuramic acid and N-acetylglucosamine which occur in the mucopeptide cell wall. Lysozyme is a mediator in the anti-tumor function of macrophages which, it has been shown, secrete the enzyme. Cartilage lysozyme has a role in cartilage calcification. Presence of the Lysozyme in cerebrospinal fluid is indicative of tumor of the central nervous system, normally lysozyme activity is practically absent from urine, bile and spinal fluid. Recombinant Human Lysozyme is added in lysing bacterial cells to the cell extraction buffer at a range

of 0.05-0.5 mg/ml (7,000-70,000 U/ml).

Recombinant Human Lysozyme produced in Plant is a single, non-glycosylated polypeptide chain containing 130 amino acids and a molecular mass of 14 kDa.

Physical Appearance

Sterile Filtered white lyophilized powder.

Biological Activity

158,800 Units/mg protein. 1 unit will produce a change of A450 0.001 per minute at pH-6.24 and 25°C, using a suspension of micrococcus lysodeikticus as substrate in a 2.6ml reaction volume.

Purity

Greater than 85% as determined by both:
(a) Analysis by RP-HPLC.
(b) Analysis by SDS-PAGE.

Formulation

The Recombinant Lysozyme was lyophilized with no additives.

Stability

Recombinant Lysozyme although stable at room temperature for 3 weeks, should be stored at 2-8°C.

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