

Human Lysozyme, LZM ELISA Kit | LZM elisa kit

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CATALOG #
AAA79920

REACTIVITY
Human

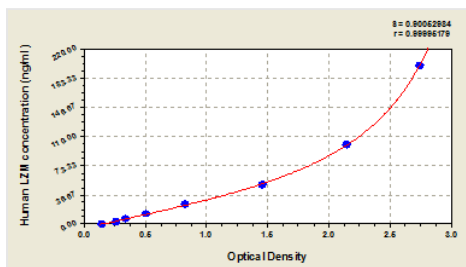
PRODUCT SYNONYMS

Lysozyme; LZM; Human Lysozyme; LZM ELISA Kit; LZM elisa kit

PRODUCT SPECIFICATIONS

Reactivity	Human
Specificity	This assay has high sensitivity and excellent specificity for detection of Human LZM. No significant cross-reactivity or interference between Human LZM and analogues was observed.
Sequence Length	148
Samples	Serum, plasma, tissue homogenates, urine
Detection Range	3.12 ng/ml-200 ng/ml
Sensitivity	0.78 ng/ml
Intra-assay Precision	Intra-assay Precision (Precision within an assay): CV% is less than 8% Three samples of known concentration were tested twenty times on one plate to assess. Inter-assay Precision (Precision between assays): CV% is less than 10% Three samples of known concentration were tested in twenty assays to assess.
Detection Wavelength	450 nm
Sample Volume	50-100ul
Preparation and Storage	Unopened test kits should be stored at 2 to 8 degree C upon receipt. Please refer to pdf manual for further storage instructions.

IMAGES



Standard Curve (Sample)

ADDITIONAL INFORMATION

Related Product Information for LZM elisa kit

Introduction: Lysozymes, also known as muramidase or N-acetylmuramide glycanhydrolase, are a family of enzymes which damage bacterial cell walls by catalyzing hydrolysis of 1,4-beta-linkages between N-acetylmuramic acid and N-acetyl-D-glucosamine residues in a peptidoglycan and between N-acetyl-D-glucosamine residues in chitodextrins. It is abundant in a number of secretions, such as tears, saliva, and mucus. Lysozyme is also present in cytoplasmic granules of the polymorphonuclear neutrophils (PMN). Large amounts of lysozyme can be found in egg whites. C-type lysozymes are closely related to alpha-lactalbumin in sequence and structure making them part of the same family. In humans, the lysozyme enzyme is encoded by the LYZ gene. The enzyme functions by attacking peptidoglycans and hydrolyzing the glycosidic bond that connects N-acetylmuramic acid with the fourth carbon atom of N-acetylglucosamine. It does this by binding to the peptidoglycan molecule in the binding site within the prominent cleft between its two domains. This causes the substrate molecule to adopt a strained conformation similar to that of the transition state. According to Phillips-Mechanism the lysozyme binds to a hexasaccharide. The lysozyme then distorts the 4th sugar in hexasaccharide (the D ring) into a half-chair conformation. In this stressed state the glycosidic bond is easily broken. 3 The amino acid side chains glutamic acid 35 (Glu35) and aspartate 52 (Asp52) have been found to be critical to the activity of this enzyme. Glu35 acts as a proton donor to the glycosidic bond, cleaving the C-O bond in the substrate, whilst Asp52 acts as a nucleophile to generate a glycosyl enzyme intermediate. The glycosyl enzyme intermediate then reacts with a water molecule, to give the product of hydrolysis and leaving the enzyme unchanged.

Principle of the Assay: The microtiter plate provided in this kit has been pre-coated with a goat-anti-rabbit antibody. Standards or samples are then added to the appropriate microtiter plate wells with a HRP-conjugated LZM and antibody preparation specific for LZM and incubated. Then substrate solutions are added to each well. The enzyme-substrate reaction is terminated by the addition of a sulphuric acid solution and the color change is measured spectrophotometrically at a wavelength of 450 nm +/- 2 nm. The concentration of LZM in the samples is then determined by comparing the O.D. of the samples to the standard curve.

NCBI AND UNIPROT INFORMATION

NCBI GI #	307142
NCBI GeneID	4069
UniProt Accession #	P61626; P00695; Q13170; Q9UCF8
Molecular Weight	16,537 Da
NCBI Official Full Name	lysozyme (EC 3.2.1.17)
NCBI Official Synonym Full Names	lysozyme
NCBI Official Symbol	LYZ
NCBI Official Synonym Symbols	LZM
NCBI Protein Information	lysozyme C; c-type lysozyme; 1,4-beta-N-acetylmuramidase C
UniProt Protein Name	Lysozyme C
UniProt Gene Name	LYZ
UniProt Synonym Gene Names	LZM
UniProt Entry Name	LYSC_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://www.aaabiotech.com/human-elisa-kits/lysozyme-lzm/79920>