

Anti-Lysozyme Antibody [ST50-02] - BSA and Azide free

HA750170



Product Type: Recombinant Rabbit monoclonal IgG, primary antibodies

Species reactivity: Human, Mouse

Applications: WB, IF-Cell, IF-Tissue, IHC-P, IP

Molecular Wt: Predicted band size: 17 kDa

Clone number: ST50-02

Description: The origins of the lysozyme proteins date back an estimated 400 to 600 million years. Generally, lysozyme genes are relatively small, roughly 10 kilobases in length, and composed of four exons and three introns. Originally a bacteriolytic defensive agent, the function of this family of proteins adapted to serve a digestive function in its present forms. Lysozymes in tissues and body fluids are associated with the monocyte-macrophage system and enhance the activity of immunoagents. Lysozyme C belongs to the glycosyl hydrolase 22 family, and newly identified relatives of Lysozyme C appear to possess anti-HIV activity, as well as preserved bacteriolytic function against *Micrococcus lysodeikticus*. Lysozyme C is capable of both hydrolysis and transglycosylation and also a slight esterase activity. It acts rapidly on both peptide-substituted and unsubstituted peptidoglycan, and slowly on chitin oligosaccharides. Lysozyme C defects are a cause of amyloidosis VIII, also called familial visceral or Ostertag-type amyloidosis.

Immunogen: Synthetic peptide within Human Lysozyme C aa 36-85 / 148.

Positive control: Mouse small intestine, HL-60 cell lysate, HepG2 cell lysate, RAW264.7 cell lysate, mouse lung tissue lysate, mouse kidney tissue lysate, CRC, human tonsil tissue, human spleen tissue, human lung tissue, mouse spleen tissue, mouse lung tissue, human liver tissue.

Subcellular location: Secreted.

Database links: SwissProt: P61626 Human | P08905 Mouse

Recommended Dilutions:

WB 1:2,000-1:10,000

IF-Cell 1:50-1:200

IF-Tissue 1:50-1:100

IHC-P 1:500-1:1,000

IP Use at an assay dependent concentration.

Storage Buffer: PBS (pH7.4).

Storage Instruction: Store at +4°C after thawing. Aliquot store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

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Images

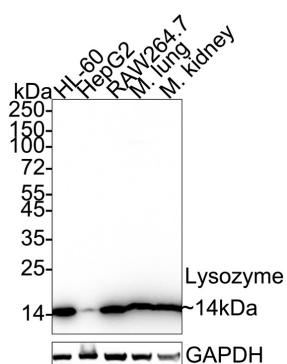


Fig1: Western blot analysis of Lysozyme on different lysates with Rabbit anti-Lysozyme antibody (HA750170) at 1/2,000 dilution.

Lane 1: HL-60 cell lysate (20 µg/Lane)
 Lane 2: HepG2 cell lysate (20 µg/Lane)
 Lane 3: RAW264.7 cell lysate (20 µg/Lane)
 Lane 4: Mouse lung tissue lysate (40 µg/Lane)
 Lane 5: Mouse kidney tissue lysate (40 µg/Lane)

Predicted band size: 17 kDa
 Observed band size: 14 kDa

Exposure time: 6 seconds; ECL: K1801;
 4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA750170) at 1/2,000 dilution was used in 5% NFDM/TBST at 4°C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

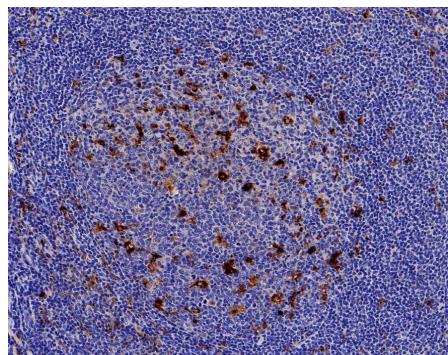


Fig2: Immunohistochemical analysis of paraffin-embedded human tonsil tissue with Rabbit anti-Lysozyme antibody (HA750170) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA750170) at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

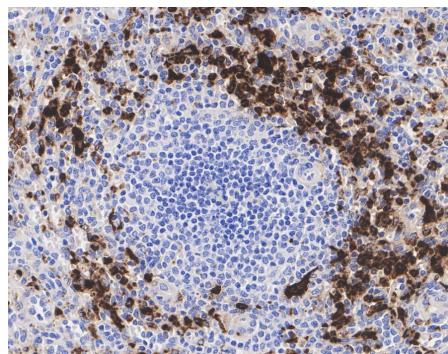


Fig3: Immunohistochemical analysis of paraffin-embedded human spleen tissue with Rabbit anti-Lysozyme antibody (HA750170) at 1/500 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA750170) at 1/500 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

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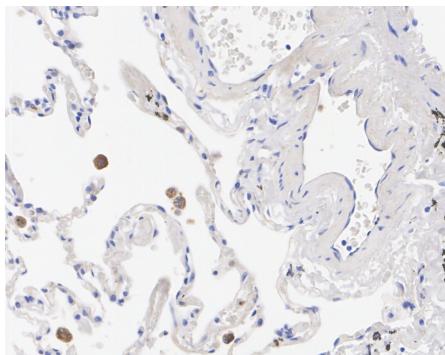


Fig4: Immunohistochemical analysis of paraffin-embedded human lung tissue with Rabbit anti-Lysozyme antibody (HA750170) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA750170) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

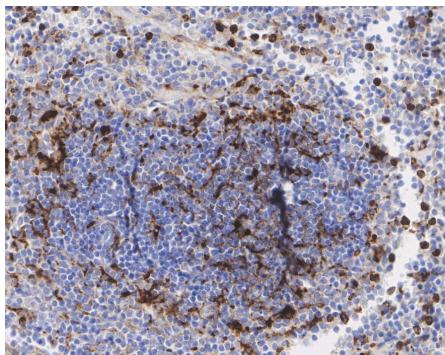


Fig5: Immunohistochemical analysis of paraffin-embedded mouse spleen tissue with Rabbit anti-Lysozyme antibody (HA750170) at 1/500 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA750170) at 1/500 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

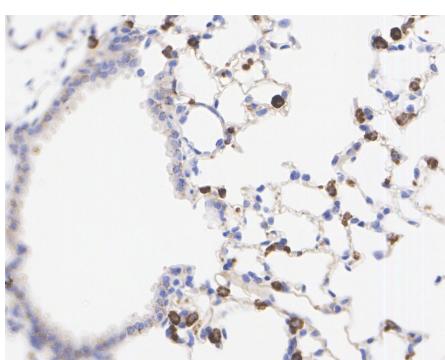


Fig6: Immunohistochemical analysis of paraffin-embedded mouse lung tissue with Rabbit anti-Lysozyme antibody (HA750170) at 1/500 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA750170) at 1/500 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

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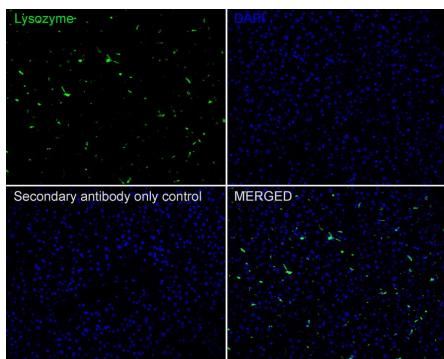


Fig7: Immunofluorescence analysis of paraffin-embedded human liver tissue labeling Lysozyme with Rabbit anti-Lysozyme antibody (HA750170) at 1/100 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 10% negative goat serum for 1 hour at room temperature, washed with PBS, and then probed with the primary antibody (HA750170, green) at 1/100 dilution overnight at 4 °C, washed with PBS. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. Nuclei were counterstained with DAPI (blue).



Fig8: ICC staining of Lysozyme in CRC cells (green). Formalin fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 10 minutes at room temperature and blocked with 1% Blocker BSA for 15 minutes at room temperature. Cells were probed with the primary antibody (HA750170, 1/50) for 1 hour at room temperature, washed with PBS. Alexa Fluor®488 Goat anti-Rabbit IgG was used as the secondary antibody at 1/1,000 dilution. The nuclear counter stain is DAPI (blue).

Note: All products are “FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE”.

Background References

1. Lo Sasso G et al. Loss of Sirt1 function improves intestinal anti-bacterial defense and protects from colitis-induced colorectal cancer. PLoS One 9:e102495 (2014).
2. Zhou WJ et al. Induction of intestinal stem cells by R-spondin 1 and Slit2 augments chemoradioprotection. Nature 501:107-11 (2013).

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