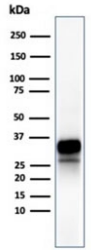
GZMB Antibody / Granzyme B [clone rGZMB/4538] (V9489)

Catalog No.	Formulation	Size
V9489-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V9489-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V9489SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

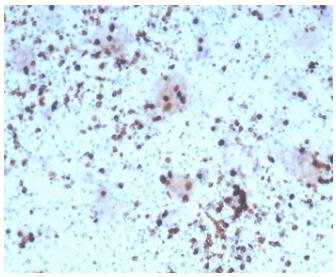
Recombinant | MOUSE MONOCLONAL

Bulk quote request

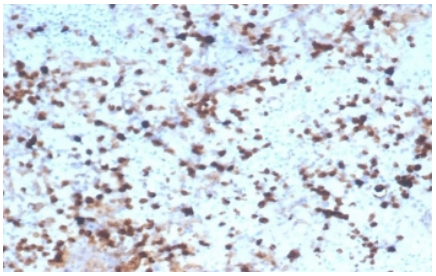
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG2a, kappa
Clone Name	rGZMB/4538
Purity	Protein A/G affinity
UniProt	P10144
Localization	Cytoplasm
Applications	Western blot: 1-2ug/ml Immunohistochemistry (FFPE): 1-2ug/ml
Limitations	This GZMB Antibody / Granzyme B is available for research use only.



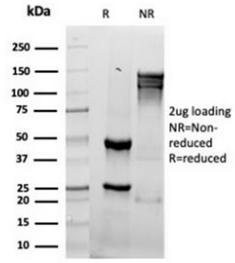
GZMB Antibody Human Spleen WB. Western blot analysis of human spleen tissue lysate using GZMB Antibody. An HRP-conjugated secondary antibody with ECL substrate was used for detection. GZMB Antibody, recognizing Granzyme B, detects prominent bands within the expected 29-37 kDa molecular weight range, consistent with precursor and proteolytically processed forms of granzyme B. The higher molecular weight band likely represents the inactive proenzyme, while the lower band corresponds to the mature active enzyme.



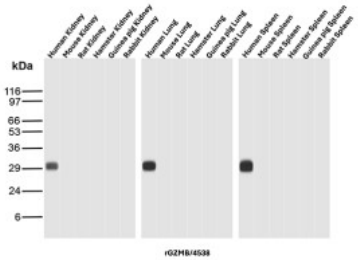
GZMB Antibody Human Tonsil IHC. Immunohistochemical staining of FFPE human tonsil tissue using GZMB Antibody. HIER was performed in pH 9 Tris-EDTA buffer. An HRP-conjugated secondary antibody with DAB substrate was used for detection. GZMB Antibody, recognizing Granzyme B, demonstrates strong granular cytoplasmic staining in scattered lymphocytes within the tonsillar lymphoid tissue, consistent with granzyme B expression in activated cytotoxic T lymphocytes and natural killer cells.



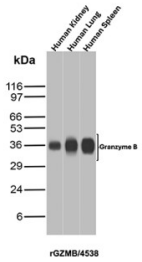
GZMB Antibody Human Spleen IHC. Immunohistochemical staining of FFPE human spleen tissue using GZMB Antibody. HIER was performed in pH 9 Tris-EDTA buffer. An HRP-conjugated secondary antibody with DAB substrate was used for detection. GZMB Antibody, recognizing Granzyme B, demonstrates strong granular cytoplasmic staining in numerous lymphocytes throughout the splenic white pulp, consistent with granzyme B expression in activated cytotoxic T lymphocytes and natural killer cells.



SDS-PAGE analysis of purified, BSA-free recombinant GZMB antibody (clone rGZMB/4538) as confirmation of integrity and purity.



GZMB Antibody in Multi-Species Kidney, Lung and Spleen WB. Western blot testing of GZMB Antibody / Granzyme B in kidney, lung and spleen tissue lysates from human, mouse, rat, hamster, guinea pig and rabbit. A strong band is observed at approximately 29-30 kDa in human kidney, human lung and human spleen, while no corresponding band is detected in the tested mouse, rat, hamster, guinea pig or rabbit tissues. This GZMB Antibody demonstrates detection of endogenous Granzyme B in the tested human tissues.



GZMB Antibody in Human Kidney, Lung and Spleen WB. Western blot testing of GZMB Antibody / Granzyme B in human kidney, lung and spleen tissue lysates. Granzyme B is detected as a prominent band at approximately 35-36 kDa in all three tissues, with particularly strong signal in lung. This GZMB Antibody demonstrates detection of endogenous Granzyme B across the tested human tissues.

Description

GZMB Antibody recognizes granzyme B (GZMB), a cytotoxic serine protease that serves as one of the principal effector molecules of activated CD8-positive cytotoxic T lymphocytes and natural killer (NK) cells. Following immune synapse formation, granzyme B is released together with perforin into target cells, where it initiates apoptosis through activation of caspases and cleavage of multiple intracellular substrates. This highly regulated mechanism is essential for eliminating virus-infected cells, intracellular pathogens, and malignant cells, making GZMB one of the most widely studied markers of cytotoxic immune function.

Granzyme B expression is largely restricted to activated cytotoxic lymphocytes and therefore reflects immune effector

activity rather than simple lymphocyte presence. Consequently, GZMB Antibody is widely used to evaluate cell-mediated immunity, tumor-infiltrating lymphocytes, antiviral immune responses, transplant rejection, autoimmune disease, and inflammatory disorders. Detection of GZMB is particularly valuable in cancer research, where granzyme B-positive immune cells often correlate with active antitumor immunity and response to immunotherapeutic interventions.

This recombinant mouse monoclonal GZMB Antibody (clone rGZMB/4538) provides highly specific and consistent recognition of granzyme B while offering the advantages of recombinant antibody technology, including excellent lot-to-lot reproducibility and long-term supply consistency. The antibody is well suited for studies of cytotoxic lymphocyte biology, tumor immunology, immune surveillance, and mechanisms of immune-mediated apoptosis.

For additional information about granzyme B biology, protein microarray-validated antibodies, validated applications, and related products, learn more about our Granzyme B Antibody, a Cytotoxic Lymphocyte Marker Antibody for investigating immune cell activation, natural killer cell function, cell-mediated cytotoxicity, and tumor immunity.

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Application Notes

Optimal dilution of the GZMB Antibody / Granzyme B should be determined by the researcher.

Immunogen

A portion of amino acids 73-187 was used as the immunogen for the recombinant GZMB antibody.

Storage

Aliquot the recombinant GZMB antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

Granzyme B Antibody, Cytotoxic T Cell Granule Protein Antibody, CTLA1 Antibody, Serine Protease Granzyme B Antibody, Granzyme-2 Antibody, NK Cell Granule Protein Antibody

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