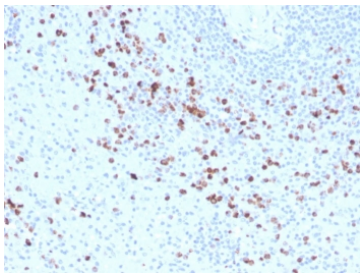
Granzyme B Antibody Biotin Conjugate / GZMB [clone GZMB/3014] (V8027BTN)

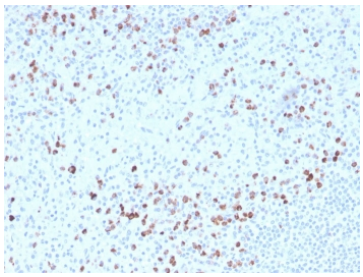
Catalog No.	Formulation	Size
V8027BTN	0.1 mg/ml with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	500 ul

Bulk quote request

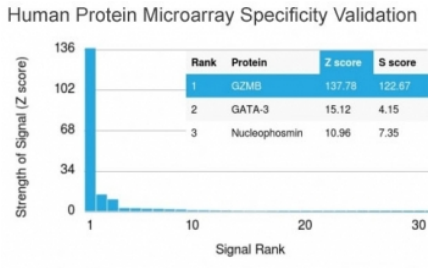
Availability	1-3 business days
Species Reactivity	Human
Format	Biotin Conjugate
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, kappa
Clone Name	GZMB/3014
Purity	Protein G affinity chromatography
UniProt	P10144
Localization	Cytoplasmic
Applications	Western blot: 2-4ug/ml Immunohistochemistry (FFPE): 2-4ug/ml for 30 minutes at RT
Limitations	This Granzyme B Antibody Biotin Conjugate / GZMB is available for research use only.



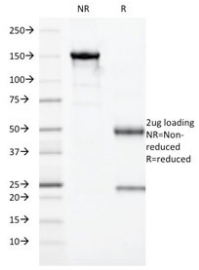
Granzyme B Antibody Biotin Conjugate Human Spleen IHC. Immunohistochemical staining of FFPE human spleen tissue using Granzyme B Antibody Biotin Conjugate. HIER was performed in pH 9 Tris-EDTA buffer. A streptavidin-HRP detection system with DAB substrate was used for visualization. Granzyme B Antibody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



Granzyme B Antibody Biotin Conjugate Human Splenic White Pulp IHC. Immunohistochemical staining of FFPE human spleen tissue using Granzyme B Antibody Biotin Conjugate. HIER was performed in pH 9 Tris-EDTA buffer. A streptavidin-HRP detection system with DAB substrate was used for visualization. Granzyme B Antibody Biotin Conjugate, recognizing GZMB, demonstrates strong granular cytoplasmic staining in cytotoxic lymphocytes concentrated within the splenic white pulp, consistent with granzyme B expression in activated cytotoxic T lymphocytes and natural killer cells.



Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using Granzyme B antibody (clone GZMB/3014). These results demonstrate the foremost specificity of the GZMB/3014 mAb. Z- and S- score: The Z-score represents the strength of a signal that an antibody (in combination with a fluorescently-tagged anti-IgG secondary Ab) produces when binding to a particular protein on the HuProt(TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If the targets on the HuProt(TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-scores. The S-score therefore represents the relative target specificity of an Ab to its intended target.



SDS-PAGE analysis of purified, BSA-free Granzyme B antibody (clone GZMB/3014) as confirmation of integrity and purity.

Description

Granzyme B Antibody Biotin Conjugate recognizes granzyme B (GZMB), a cytotoxic serine protease stored within the secretory granules of activated CD8-positive cytotoxic T lymphocytes and natural killer (NK) cells. Upon immune activation, granzyme B is released together with perforin and enters target cells to initiate apoptosis through cleavage of caspases, BID, PARP, and other intracellular substrates. This mechanism is essential for eliminating virus-infected, transformed, and malignant cells, making granzyme B one of the most widely used biomarkers of cytotoxic immune cell function.

Granzyme B expression is largely restricted to activated cytotoxic lymphocytes and therefore serves as a functional marker of immune activation rather than simply identifying lymphocyte lineage. Detection of GZMB is frequently used to evaluate antitumor immune responses, antiviral immunity, transplant rejection, autoimmune disease, and inflammatory disorders. Because granzyme B expression correlates closely with cytotoxic effector activity, it has become an important biomarker for monitoring immune responses in both basic research and translational studies.

This Granzyme B Antibody Biotin Conjugate (clone GZMB/3014) has been validated by HuProtÃ¢Â„Â¢ Human Protein Microarray analysis against more than 19,000 full-length human proteins, demonstrating exceptional specificity for GZMB with minimal cross-reactivity. Protein microarray validation provides independent confirmation of target specificity, making this antibody well suited for applications requiring high confidence in antigen recognition.

The biotin conjugate enables sensitive detection through streptavidin-based systems and is particularly useful for immunohistochemistry, immunocytochemistry, ELISA, multiplex staining, signal amplification protocols, and other assays utilizing biotin-streptavidin chemistry. For additional information about granzyme B biology, validated applications, and related unconjugated products, learn more about our Granzyme B Antibody, a Cytotoxic Lymphocyte Marker Antibody for

investigating immune cell activation, cell-mediated cytotoxicity, tumor immunity, and natural killer cell function.

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Application Notes

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

Immunogen

A portion of amino acids 73-187 from the human protein was used as the immunogen for the Granzyme B antibody.

Storage

Store the Granzyme B antibody at 2-8oC (up to one month) or aliquot and store at -20oC (longer term).

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