

GZMB Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP6575a**Specification**

GZMB Antibody (N-term) Blocking Peptide - Product InformationPrimary Accession [P10144](#)**GZMB Antibody (N-term) Blocking Peptide - Additional Information**

Gene ID 3002

Other Names

Granzyme B, C11, CTLA-1, Cathepsin G-like 1, CTSL1, Cytotoxic T-lymphocyte proteinase 2, Lymphocyte protease, Fragmentin-2, Granzyme-2, Human lymphocyte protein, HLP, SECT, T-cell serine protease 1-3E, GZMB, CGL1, CSPB, CTLA1, GRB

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP6575a](/products/AP6575a) was selected from the N-term region of human GZMB. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

GZMB Antibody (N-term) Blocking Peptide - Protein Information

Name GZMB {ECO:0000303|PubMed:32188940, ECO:0000312|HGNC:HGNC:4709}

Function

Abundant protease in the cytosolic granules of cytotoxic T- cells and NK-cells which activates caspase-independent pyroptosis when delivered into the target cell through the immunological synapse (PubMed:[1985927](http://www.uniprot.org/citations/1985927), PubMed:[3262682](http://www.uniprot.org/citations/3262682), PubMed:[3263427](http://www.uniprot.org/citations/3263427)). It cleaves after Asp (PubMed:[1985927](http://www.uniprot.org/citations/1985927), PubMed:[8258716](http://www.uniprot.org/citations/8258716)). Once delivered into the target cell, acts by catalyzing cleavage of gasdermin-E (GSDME), releasing the pore-forming moiety of GSDME, thereby triggering pyroptosis and target cell death (PubMed:[3263427](#)).

href="http://www.uniprot.org/citations/31953257" target="_blank">31953257, PubMed:32188940). Seems to be linked to an activation cascade of caspases (aspartate-specific cysteine proteases) responsible for apoptosis execution. Cleaves caspase-3, -9 and -10 (CASP3, CASP9 and CASP10, respectively) to give rise to active enzymes mediating apoptosis (PubMed:9852092). Cleaves and activates CASP7 in response to bacterial infection, promoting plasma membrane repair (By similarity).

Cellular Location

Secreted. Cytolytic granule. Note=Delivered into the target cell by perforin (PubMed:20038786).

GZMB Antibody (N-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

GZMB Antibody (N-term) Blocking Peptide - Images**GZMB Antibody (N-term) Blocking Peptide - Background**

Cytolytic T lymphocytes (CTL) and natural killer (NK) cells share the remarkable ability to recognize, bind, and lyse specific target cells. They are thought to protect their host by lysing cells bearing on their surface 'nonself' antigens, usually peptides or proteins resulting from infection by intracellular pathogens. The protein is crucial for the rapid induction of target cell apoptosis by CTL in cell-mediated immune response.

GZMB Antibody (N-term) Blocking Peptide - References

Hagn,M., J. Immunol. 183 (3), 1838-1845 (2009)Gaafar,A., Exp. Hematol. 37 (7), 838-848 (2009)Girnita,D.M., Transplantation 87 (12), 1801-1806 (2009)