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Granzyme B (NK/T-Cell Lymphoma Marker) Antibody - With BSA and Azide

Rabbit Polyclonal Antibody [Clone]
Catalog # AH11384

Product Information

Application	WB, IHC, IF, FC
Primary Accession	P10144
Other Accession	3002, 1051
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit / IgG
Clone Names	
Calculated MW	27716

Additional Information

Gene ID	3002
Other Names	Granzyme B, 3.4.21.79, C11, CTLA-1, Cathepsin G-like 1, CTSGL1, 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
Application Note	WB~~1:1000 IHC~~1:100~500 IF~~1:50~200 FC~~1:10~50
Storage	Store at 2 to 8°C.Antibody is stable for 24 months.
Precautions	Granzyme B (NK/T-Cell Lymphoma Marker) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

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, PubMed:3262682, PubMed:3263427). It cleaves after Asp (PubMed:1985927, PubMed: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: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).

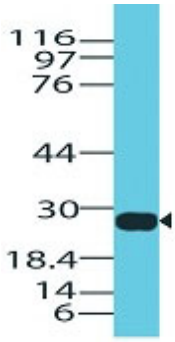
Background

Granzyme B is a member of the granule serine protease family stored specifically in NK cells or cytotoxic T cells. Cytolytic T lymphocytes (CTL) and natural killer (NK) cells share the ability to recognize, bind, and lyse specific target cells. They are thought to protect their host by lysing cells bearing on their surface 'non-self' antigens, usually peptides or proteins resulting from infection by intracellular pathogens. Granzyme B is crucial for the rapid induction of target cell apoptosis by CTLs in the cell-mediated immune response. Granzyme B is useful as a marker in the identification of NK/T-cell lymphomas. High percentages of cytotoxic T-cells have been shown to be an unfavorable prognostic indicator in Hodgkinā€™s Disease.

References

Shresta, S., et al. 1995. Natural killer and lymphokine-activated killer cells require granzyme B for the rapid induction of apoptosis in susceptible target cells. Proc. Natl. Acad. Sci. USA 92: 5679-5683

Images



Western Blot Analysis of human Stomach Lysate using Granzyme B Polyclonal Antibody (Rabbit)