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Granzyme B Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP50660

Product Information

Application	WB, IHC
Primary Accession	P10144
Other Accession	P20718
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	polyclonal
Calculated MW	27716

Additional Information

Gene ID	3002
Other Names	Granzyme B, 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
Dilution	WB~~1:1000 IHC~~1:50-1:100
Format	Rabbit IgG in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.09% (W/V) sodium azide and 50% glycerol.
Storage Conditions	-20℃

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).

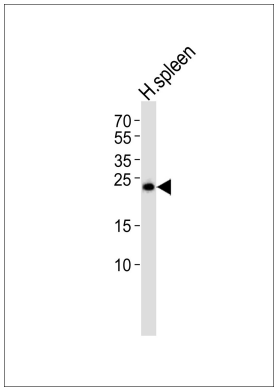
Background

This enzyme is necessary for target cell lysis in cell- mediated immune responses. It cleaves after Asp. Seems to be linked to an activation cascade of caspases (aspartate-specific cysteine proteases) responsible for apoptosis execution. Cleaves caspase-3, -7, -9 and 10 to give rise to active enzymes mediating apoptosis.

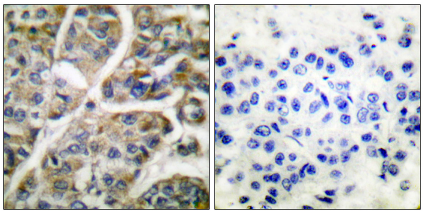
References

Schmid J.,et al.J. Immunol. 139:250-256(1987).
Caputo A.,et al.J. Biol. Chem. 263:6363-6369(1988).
Trapani J.A.,et al.Proc. Natl. Acad. Sci. U.S.A. 85:6924-6928(1988).
Klein J.L.,et al.Genomics 5:110-117(1989).
Caputo A.,et al.J. Immunol. 145:737-744(1990).

Images



Western blot analysis of lysate from human spleen tissue lysate,using Granzyme B Antibody(AP50660). AP50660 was diluted at 1:1000. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody.Lysate at 35ug.



Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using Granzyme B antibody .

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