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Anti-Granzyme B/H Antibody

Catalog # AP53677

Product Information

Application	WB, IHC, IF/IC
Primary Accession	P10144
Other Accession	P20718
Reactivity	Human, Mouse, Rat, Pig, Bovine, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	27716

Additional Information

Gene ID	3002
Other Names	GZMB; CGL1; CSPB; CTLA1; GRB; 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; GZMH; CGL2; CTSGL2; Granzyme H; CCP-X; Cathepsin G-like 2; CTSGL2; Cytotoxic T-lymphocyte proteinase; Cytotoxic serine protease C; CSP-C
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the N-term region of human Granzyme B/H. The exact sequence is proprietary.
Dilution	WB~~1/500 - 1/1000 IHC~~1/50 - 1/200 IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

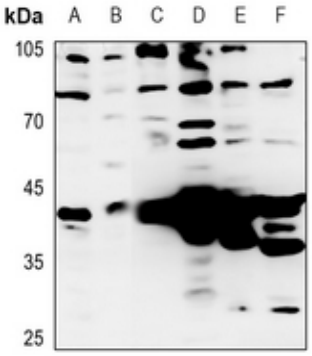
Name	GZMB {ECO:0000303|PubMed:32188940, ECO:0000312|HGNC:HGNC:4709}
Function	Abundant protease in the cytosolic granules of cytotoxic T- cells and NK-cells which activates caspase-independent pyroptosis when delivered into the target cell through the immunological synapse (PubMed:1985927, PubMed:3262682, 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).

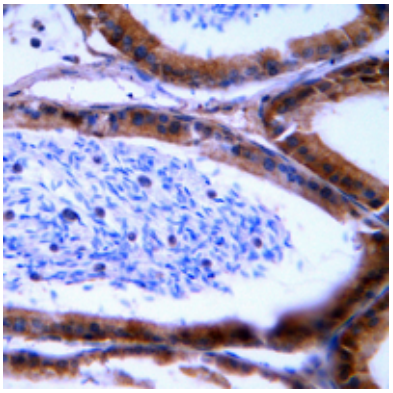
Cellular Location

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

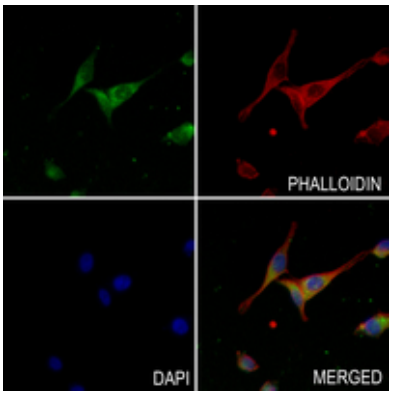
Images



Western blot analysis of Granzyme B/H expression in HEK293T (A), H1688 (B), mouse lung (C), mouse liver (D), rat lung (E), rat liver (F) whole cell lysates. (Predicted band size: 27 kD; Observed band size: 40 kD)

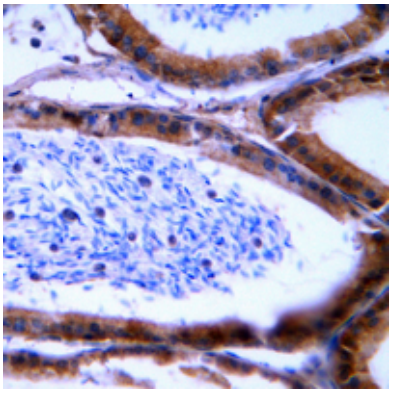


Immunohistochemical analysis of Granzyme B/H staining in human tonsil formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of Granzyme B/H staining in MDAMB231 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

Immunohistochemical analysis of Granzyme B/H staining in human tonsil formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



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