

Granzyme A Antibody
Rabbit Polyclonal Antibody
Catalog # ABV11234**Specification**

Granzyme A Antibody - Product Information

Application	WB
Primary Accession	P12544
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	28999

Granzyme A Antibody - Additional Information**Gene ID** 3001

Positive Control	Western Blot: mouse muscle lysate, rat kidney lysate, recombinant protein
Application & Usage	Western blot: 1-4 µg

Other Names

CTL tryptase, Cytotoxic T-lymphocyte proteinase 1, Fragmentin-1, Granzyme-1, Hanukkah factor, H factor, HF

Target/Specificity

Granzyme A

Antibody Form

Liquid

Appearance

Colorless liquid

Formulation

100 µg (0.5 mg/ml) of antibody in PBS pH 7.2 containing 0.01 % BSA, 0.01 % thimerosal, and 50 % glycerol.

Handling

The antibody solution should be gently mixed before use.

Reconstitution & Storage

-20 °C

Background Descriptions**Precautions**

Granzyme A Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Granzyme A Antibody - Protein Information

Name GZMA {ECO:0000303|PubMed:32299851, ECO:0000312|HGNC:HGNC:4708}

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:3257574, PubMed:3262682, PubMed:3263427, PubMed:32299851, PubMed:12819770). It cleaves after Lys or Arg (PubMed:32299851, PubMed:12819770). Once delivered into the target cell, acts by catalyzing cleavage of gasdermin-B (GSDMB), releasing the pore-forming moiety of GSDMB, thereby triggering pyroptosis and target cell death (PubMed:32299851, PubMed:34022140, PubMed:36157507, PubMed:36899106). Cleaves APEX1 after 'Lys-31' and destroys its oxidative repair activity (PubMed:12524539). Cleaves the nucleosome assembly protein SET after 'Lys-189', which disrupts its nucleosome assembly activity and allows the SET complex to translocate into the nucleus to nick and degrade the DNA (PubMed:11555662, PubMed:12628186, PubMed:16818237).

Cellular Location

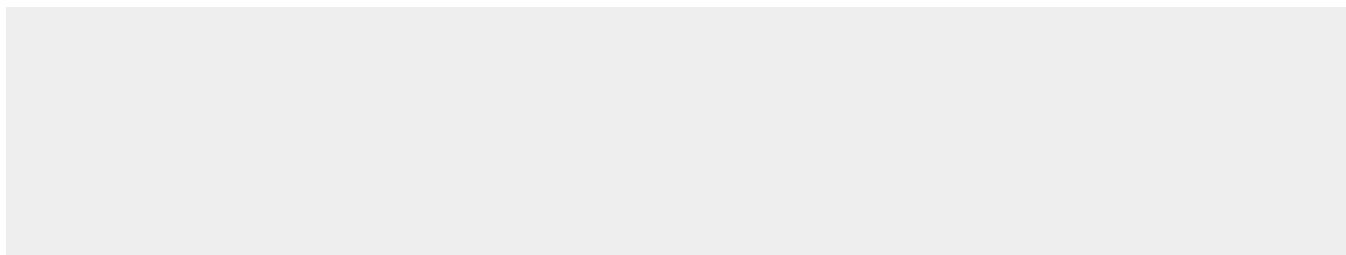
[Isoform alpha]: Secreted. Cytoplasmic granule. Note=Delivered into the target cell by perforin.

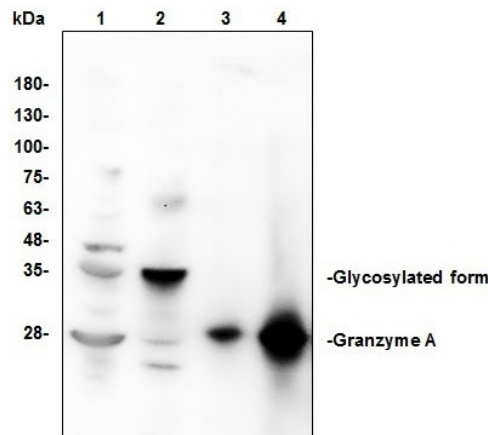
Granzyme A Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Granzyme A Antibody - Images





Western blot with Granzyme A antibody. Lane 1: 50 µg Mouse muscle lysate; Lane 2: 50 µg Rat kidney lysate; Lane 3: 2 ng Human recombinant Granzyme A; Lane 4: 10 ng Human recombinant Granzyme A

Granzyme A Antibody - Background

Granzymes are a family of serine proteases expressed by cytotoxic T lymphocytes and natural killer (NK) cells and are key components of immune responses to pathogens and transformed cells. Granzymes are synthesized as zymogens and are processed into mature enzymes by cleavage of a leader sequence. They are released by exocytosis in lysosome-like granules containing perforin, a membrane pore-forming protein. Granzyme A is the most abundant serine protease in cytotoxic T lymphocytes (CTL) and natural killer (NK) cells. Granzyme A has a specific function in CTL and NK cells. It induces caspase-independent cell death when introduced into target cells by perforin. Granzyme B has the strongest apoptotic activity of all the granzymes as a result of its caspase-like ability to cleave substrates at aspartic acid residues thereby activating procaspases directly and cleaving downstream caspase substrates