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Anti-Granzyme A Antibody
Catalog # ABO10902

Specification

Anti-Granzyme A Antibody - Product Information

Application	**WB, IHC**
Primary Accession	P12544
Host	**Rabbit**
Reactivity	**Human**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Granzyme A(GZMA) detection. Tested with WB, IHC-P in Human.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-Granzyme A Antibody - Additional Information

Gene ID 3001

Other Names
Granzyme A, 3.4.21.78, CTL tryptase, Cytotoxic T-lymphocyte proteinase 1, Fragmentin-1, Granzyme-1, Hanukkah factor, H factor, HF, GZMA, CTLA3, HFSP

Calculated MW
|cell biology|apoptosis|extracellular signals|granzymes|
immunology|adaptive immunity|t cells|cytotoxic cells|innate immunity|nk cells Da

Application Details
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat
Western blot, 0.1-0.5 µg/ml, Human

Subcellular Localization
Granzyme A

Tissue Specificity
28999 MW

Source
Abundant protease in the cytosolic granules of cytotoxic T-cells and NK-cells which activates caspase-independent cell death with morphological features of apoptosis when delivered into the target cell through the immunological synapse. It cleaves after Lys or Arg. Cleaves APEX1 after 'Lys-31' and destroys its oxidative repair activity. 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. .

Protein Name
Isoform alpha: Secreted. Cytoplasmic granule.

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.

Immunogen
A synthetic peptide corresponding to a sequence in the middle region of human Granzyme A(175-190aa DRKVCNDRNHYNFNPV).

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins

Storage	**At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.**

Anti-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.

Anti-Granzyme A Antibody - Protocols

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

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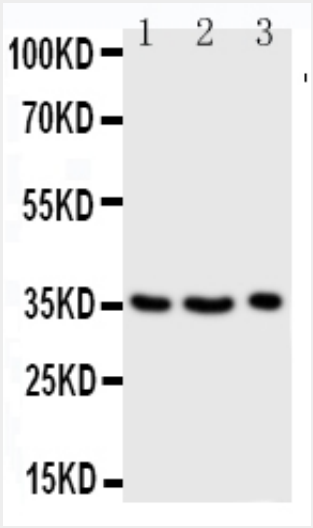
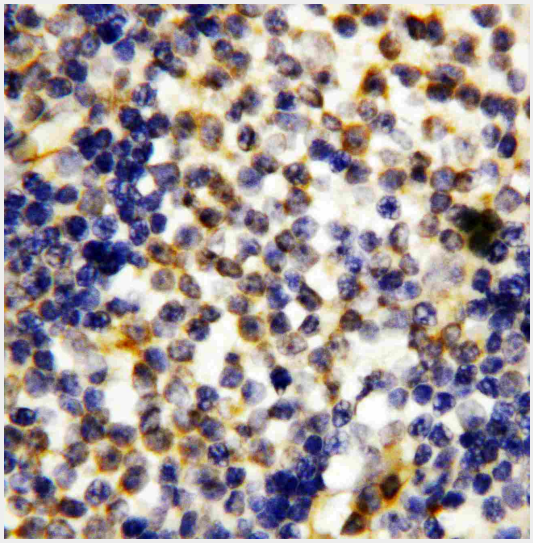
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-Granzyme A Antibody - Images



Anti-Granzyme A antibody, ABO10902, Western blottingLane 1: JURKAT Cell LysateLane 2: CEM Cell LysateLane 3: RAJI Cell Lysate



Anti-Granzyme A antibody, ABO10902, IHC(P)IHC(P): Human Tonsil Tissue

Anti-Granzyme A Antibody - Background

Granzyme A is a protein that in humans is encoded by the GZMA gene. Cytolytic T lymphocytes(CTL) and natural killer(NK) cells share the remarkable ability to recognize, bind, and lyse specific target cells. They are though to protect their host by lysing cells bearing on their surface nonself" antigens