

Granzyme B Antibody

Rabbit Polyclonal Antibody Catalog # ABV10054

Specification

Granzyme B Antibody - Product Information

Application WB
Primary Accession P10144
Other Accession NP_004122

Reactivity Human, Mouse, Rat

Host Rabbit
Clonality Polyclonal
Isotype Rabbit IgG
Calculated MW 27716

Granzyme B Antibody - Additional Information

Gene ID 3002

Application & Usage Western blotting (0.5-4 μg/ml). However,

the optimal conditions should be

determined individually.

Target/Specificity
Granzyme B

Antibody Form

Liquid

AppearanceColorless liquid

Formulation

 $100 \mu g$ (0.5 mg/ml) affinity purified polyclonal antibody in phosphate buffered saline (PBS), pH 7.2, containing 30% glycerol, 0.5% BSA, 0.01% thimerosal.

Handling

The antibody solution should be gently mixed before use.

Reconstitution & Storage

-20 °C

Background Descriptions

Precautions

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

Granzyme B Antibody - 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:<a href="http://www.uniprot.org/citations/3262682"

target="_blank">3262682, PubMed:3263427, PubMed:1985927). It cleaves after Asp (PubMed:8258716, PubMed:1985927). Once delivered into the target cell, acts by catalyzing cleavage of gasdermin-E (GSDME), releasing the poreforming moiety of GSDME, thereby triggering pyroptosis and target cell death (PubMed:32188940, PubMed:31953257). 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

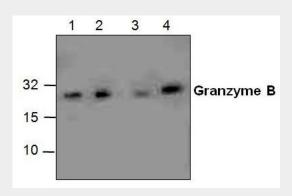
Secreted. Cytolytic granule. Note=Delivered into the target cell by perforin (PubMed:20038786).

Granzyme B Antibody - Protocols

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

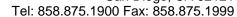
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Granzyme B Antibody - Images



Western blot analysis of Granzyme B in lysate from Jurkat cells (Lane1&2), 3T3 cells (Lane 3) and rat kidney (Lane 4).







Granzyme B Antibody - Background

Granzyme B is a 27 kDa serine protease stored in granules of activated cytotoxic T cells and NK cells. Upon target cell contact, granzyme B is directionally exocytosed and assisted by perforin, enters the target cell. With its unique substrate specificity (granzyme B cleaves after Asp), granzyme B processes and activates various pro-caspases thereby inducing apoptosis in the target cell.