

Granzyme B Antibody (Clone B18.1)
Mouse Monoclonal Antibody
Catalog # ABV10053**Specification**

Granzyme B Antibody (Clone B18.1) - Product Information

Application	WB, IHC, FC, IP
Primary Accession	P10144
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse IgG
Calculated MW	27716

Granzyme B Antibody (Clone B18.1) - Additional Information**Gene ID** 3002

Positive Control	Human T-cells
Application & Usage	Western blot, Immunoprecipitation, Immunohistochemistry, flow cytometry. However, the optimal conditions should be determined individually.

Other Names

Granzyme B, 3.4.21.79, C11, CTLA-1, Cathepsin G-like 1, CTSL1, 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

Target/Specificity

Granzyme B

Antibody Form

Liquid

Appearance

Colorless liquid

Formulation

100 µg (0.5 mg/ml) affinity purified mouse monoclonal 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 (Clone B18.1) is for research use only and not for use in diagnostic or therapeutic procedures.

Granzyme B Antibody (Clone B18.1) - 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: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 pore-forming 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 (Clone B18.1) - 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 B Antibody (Clone B18.1) - Images**Granzyme B Antibody (Clone B18.1) - 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.