

## Anti-Granzyme B Antibody (6G558)

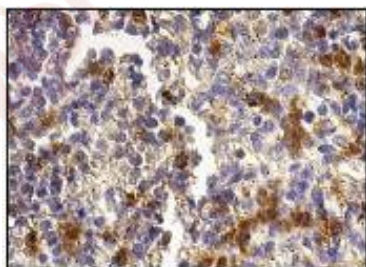
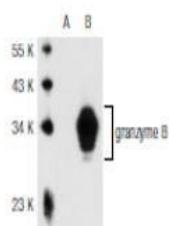
### Product Details

Reactivity:	Human,Mouse,Rat
Conjugation:	Unconjugated
Molecular Weight:	Theoretical: 32 kDa.
Clone:	6G558
Purification:	ProA affinity purified

### Applications

#### Verified Activity:

1. Western blot analysis of granzyme B expression in non-transfected (A) and human granzyme B transfected (B) 293T whole cell lysates.
2. Immunoperoxidase staining of formalin fixed, paraffin-embedded human spleen tissue showing cytoplasmic staining of cells in red pulp.



Application: IF,IHC-P,IP,WB

Recommended WB: 1:100-1000; IP: 1-2 µg per 100-500 µg of total protein(1 ml of cell lysate); IF: 1:50-1:200; IHC-P: 1:50-500

### Properties

Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.

Shipping: Shipping with blue ice.

### Antigen Details

Immunogen: Amino acids 1-247 representing full length granzyme B of human origin

Antigen Species: human

Uniprot ID: P10144

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### Research Background

Granzyme A and granzyme B are serine proteases that mediate apoptotic signaling in cytotoxic T lymphocytes (CTL) and natural killer (NK) cells. Both granzyme A and granzyme B are synthesized as inactive proenzymes, and they are stored within cytolytic granules and released by effector cells during degranulation. In activated CTLs, granzyme A and granzyme B are processed and activated by cathepsin C, and they then function to induce apoptosis by two distinct pathways. Granzyme B proteolytically cleaves and activates members of the caspase family of cysteine proteases, including caspase-3, caspase-6, caspase-7 and caspase-9. When cleaved, these caspases assemble into active holoenzymes that then mediate apoptosis through a defined proteolytic cascade involving nuclear lamins and PARP (poly ADP ribose polymerase). Granzyme A mediates the activation of apoptosis by inducing single-strand DNA breaks, membrane perturbation and nuclear condensations in an alternative pathway that is independent from caspase activation or the caspase proteolytic cascade.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

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