

# granzyme F (V-14): sc-103530

## BACKGROUND

The granzyme family of proteins belong to the larger peptidase S1 family. Granzymes are serine proteases that are released by cytoplasmic granules of natural killer cells and cytotoxic T-cells. Once released, they enter virus-infected cells to cleave caspases and induce apoptosis. Granzyme F, also known as Cytotoxic cell protease 4 and Cytotoxic serine protease 3, is a 248 amino acid protein that is thought to be involved in the process of target cell lysis in cell-mediated immune responses. Murine granzyme F is highly expressed in NK3.1 cells and lymphokine-activated killer cells. Granzyme F induces a novel cell death pathway which causes reactive oxygen species accumulation, mitochondrial swelling and depolarization. Interestingly, Granzyme F-induced death impairs mitochondrial electron transport and abolishes ATP generation, which then leads to inactivation of caspase activity.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: Gzmf (mouse) mapping to 14 C3.

## SOURCE

granzyme F (V-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of granzyme F of mouse origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-103530 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

granzyme F (V-14) is recommended for detection of granzyme F of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other granzyme family members.

Suitable for use as control antibody for granzyme F siRNA (m): sc-105413, granzyme F shRNA Plasmid (m): sc-105413-SH and granzyme F shRNA (m) Lentiviral Particles: sc-105413-V.

Molecular Weight of granzyme F: 30 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.