# Granzyme B Monoclonal Antibody (NGZB), PE-Cyanine5.5, eBioscience™

| Product Details | |
|---|---|
| Size | 100 µg |
| Species Reactivity | Mouse |
| Host/Isotype | Rat / IgG2a, kappa |
| Recommended Isotype Control | Rat IgG2a kappa Isotype Control (eBR2a), PE-Cyanine5.5, eBioscience™ |
| Class | Monoclonal |
| Type | Antibody |
| Clone | NGZB |
| Conjugate | PE-Cyanine5.5 |
| Form | Liquid |
| Concentration | 0.2 mg/mL |
| Purification | Affinity chromatography |
| Storage buffer | PBS, pH 7.2 |
| Contains | 0.09% sodium azide |
| Storage conditions | 4° C, store in dark, DO NOT FREEZE! |
| RRID | AB_2848329 |

| Applications | Tested Dilution | Publications |
|---|---|---|
| Flow Cytometry (Flow) | 1.0 µg/test | 19 Publications |

## Product Specific Information

Description: This NGZB monoclonal antibody reacts with mouse Granzyme B, which is a member of the granzyme serine protease family. Granzyme B is found in the granules of cytotoxic T cells and NK cells. Granzyme B has also been described as CGL1 (cathepsin G-like-1), a serine protease expressed only in cytotoxic T-lymphocytes after cell activation, and CTLA-1 (cytotoxic T lymphocyte-associated serine esterase 1) based on identification of mRNA in various cytotoxic T cells, but not observed in non-cytotoxic lymphoid cells. Granzyme B is crucial for the rapid induction of target cell death by apoptosis, induced by interaction with cytotoxic T cells. The receptor involved has been identified as mannose 6-phosphate receptor. This receptor functions as a death receptor for Granzyme B during cytotoxic T cell-induced apoptosis. This NGZB monoclonal antibody does not crossreact to human Granzyme B nor is staining blocked with GB11, suggesting it recognizes a different epitope.

Applications Reported: This NGZB antibody has been reported for use in intracellular staining followed by flow cytometric analysis.

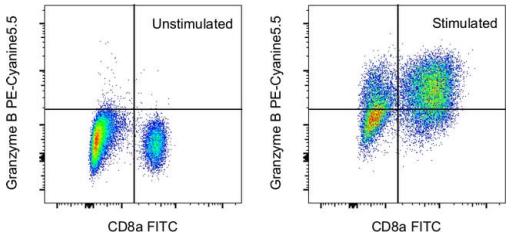
Applications Tested: This NGZB antibody has been tested by intracellular staining followed by flow cytometric analysis of mouse splenocytes using the Intracellular Fixation & Permeabilization Buffer Set (Product # 88-8824-00) and protocol. Please refer to "Staining Intracellular Antigens for Flow Cytometry, Protocol A: Two step protocol for intracellular (cytoplasmic) proteins" located at Flow Protocols. This may be used at less than or equal to 1.0 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10^5 to 10^8 cells /test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (Product # 00-8222-49) (100 µL of cell sample + 100 µL of IC Fixation Buffer) or 1-step Fix/Lyse Solution (Product # 00-5333-57) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency/compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific performance should be determined empirically.

Excitation: 488-561 nm; Emission: 695 nm; Laser: Blue Laser, Green Laser, Yellow-Green Laser

## Product Images For Granzyme B Monoclonal Antibody (NGZB), PE-Cyanine5.5, eBioscience™




**Granzyme B Antibody (35-8898-82) in Flow**
C57BL/6 mouse splenocytes were unstimulated (left) or stimulated for 4 days with CD3e and CD28 Monoclonal Antibodies, Functional Grade (Product # 16-0031-85) and (Product # 16-0281-85) (right). Cells were then stained intracellularly, using the Intracellular Fixation & Permeabilization Buffer Set (Product # 88-8824-00) and protocol, with CD8a Monoclonal Antibody, FITC (Product # 11-0081-82) and 0.5 µg of Granzyme B Monoclonal Antibody, PE-Cyanine5.5. Cells in the lymphocyte gate were used for analysis.

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## 19 References

### Flow Cytometry (19)

**Frontiers in immunology**

**$CD4^+$ T Cell Fate Decisions Are Stochastic, Precede Cell Division, Depend on GITR Co-Stimulation, and Are Associated With Uropodium Development.**

"Published figure using Granzyme B monoclonal antibody (Product # 35-8898-82) in Flow Cytometry"

Authors: Cobbold SP,Adams E,Howie D,Waldmann H

**Species**
Not Applicable

**Dilution**
Not Cited

**Year**
2022

**International journal of nanomedicine**

**Extracellular Vesicles from *Akkermansia muciniphila* Elicit Antitumor Immunity Against Prostate Cancer via Modulation of $CD8^+$ T Cells and Macrophages.**

"Published figure using Granzyme B monoclonal antibody (Product # 35-8898-82) in Flow Cytometry"

Authors: Luo ZW,Xia K,Liu YW,Liu JH,Rao SS,Hu XK,Chen CY,Xu R,Wang ZX,Xie H

**Species**
Not Applicable

**Dilution**
Not Cited

**Year**
2021

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