

Granzyme B Monoclonal Antibody (NGZB), APC-eFluor™ 780, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse
Host/Isotype	Rat / IgG2a, kappa
Recommended Isotype Control	Rat IgG2a kappa Isotype Control (eBR2a), APC-eFluor™ 780, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	NGZB
Conjugate	APC-eFluor™ 780
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_2716966

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	0.25 µg/test	4 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 and flow cytometric analysis.

Applications Tested: This NGZB antibody has been tested by intracellular staining and flow cytometric analysis of mouse splenocytes using the Intracellular Fixation and Permeabilization Buffer Set (cat. 88-8824) and protocol. Please refer to Best Protocols: Protocol A: Two step protocol for (cytoplasmic) intracellular proteins. This can be used at less than or equal to 0.25 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 10⁵ to 10⁸ cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

APC-eFluor™ 780 emits at 780 nm and is excited with the Red laser (633 nm). Please make sure that your instrument is capable

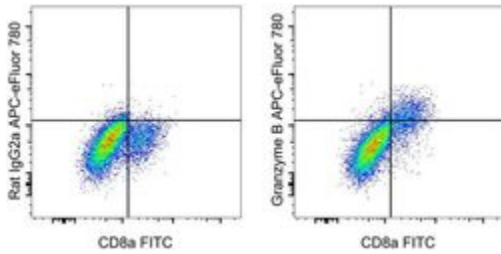
of detecting this fluorochrome.

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) (100 μ L of cell sample + 100 μ L of IC Fixation Buffer) or 1-step Fix/Lyse Solution (Product # 00-5333) 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: 633-647 nm; Emission: 780 nm; Laser: Red Laser

Product Images For Granzyme B Monoclonal Antibody (NGZB), APC-eFluor™ 780, eBioscience™



Granzyme B Antibody (47-8898-82) in Flow

Mouse splenocytes were cultured with plate bound Anti-Mouse CD3e Functional Grade Purified (Product # 16-0031) and Anti-Mouse CD28 Functional Grade Purified (Product # 16-0281) for 4 days, then cultured with Protein Transport Inhibitor Cocktail (Product # 00-4980) for an additional 5 hours. Cells were surface stained with Anti-Mouse CD8a FITC (Product # 11-0081) followed by intracellular staining with 0.125 μ g of Rat IgG2a K Isotype Control APC-eFluor® 780 (Product # 47-4321) (left) or 0.125 μ g of Anti-Mouse Granzyme B APC-eFluor® 780 (right). Total viable cells, as determined by Fixable Viability Dye eFluor® 450, were used for analysis.

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4 References

Flow Cytometry (4)

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 # 47-8898-82) 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

Cell reports

Blockade of 6-phosphogluconate dehydrogenase generates CD8⁺ effector T cells with enhanced anti-tumor function.

"Published figure using Granzyme B monoclonal antibody (Product # 47-8898-82) in Flow Cytometry"

Authors: Daneshmandi S,Cassel T,Lin P,Higashi RM,Wulf GM,Boussiotis VA,Fan TW,Seth P

Species
Not Applicable

Dilution
Not Cited

Year
2021

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