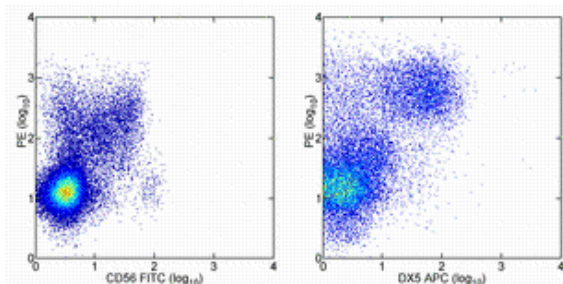


## Anti-Human Granzyme B PE

**Catalog Number:** 12-8899

**RUO: For Research Use Only. Not for use in diagnostic procedures.**



Left: Normal human peripheral blood cells were stimulated for 2 days with Human IL-2 Recombinant Protein (cat. 14-8029). The cells were surface stained with Anti-Human CD56 (NCAM) FITC and stained intracellularly with Anti-Human Granzyme B PE. Quadrants demarcate boundary for isotype controls. Right: Mouse splenocytes were stimulated for 3 days with Mouse IL-2 Recombinant Protein (cat. 14-8021). Cells were surface stained with Anti-Mouse CD49b (Integrin alpha 2) APC (cat 17-5971) and subsequently stained intracellularly with Anti-Human Granzyme B PE.

### Product Information

**Contents:** Anti-Human Granzyme B PE


**REF** **Catalog Number:** 12-8899

**Clone:** GB11


**Concentration:** 5  $\mu$ L (0.125  $\mu$ g)/test


**Host/Isotype:** Mouse IgG1

**Formulation:** aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer

 **Temperature Limitation:** Store at 4°C. DO NOT FREEZE. LIGHT-SENSITIVE MATERIAL.

**LOT** **Batch Code:** Refer to Vial

 **Use By:** Refer to Vial

 **Caution, contains Azide**

### Description

The GB11 antibody reacts with human Granzyme B (GrB). GrB is one of the family of serine proteases, known as granzymes, that is located in the granules of cytotoxic T cells and NK cells. Granzyme B has been described also as CGL1 (cathepsin G-like-1), a serine protease expressed only in cytotoxic T-lymphocytes after cell activation. GrB has been called 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. GrB 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.

### Applications Reported

The GB11 antibody has been reported useful for intracellular staining followed by flow cytometric analysis.

### Applications Tested

This GB11 antibody has been pre-titrated and tested on by intracellular staining and flow cytometric analysis of both cultured human PBMCs and mouse splenocytes. This can be used at test size: 5  $\mu$ L (0.125  $\mu$ g) per test. A test is defined as the amount ( $\mu$ g) of antibody that will stain a cell sample in a final volume of 100  $\mu$ L. Cell number should be determined empirically but can range from  $10^5$  to  $10^8$  cells/test. Please refer to the anti-mouse Granzyme B for additional staining data using an alternate antibody, clone 16G6.

### References

Trinchieri, G., et al. 1984. Perussia B: Human natural killer cells: biologic and pathologic aspects. *Lab Invest.* 50: 489-513.

Smyth, M., et al. 1995. Granzymes: exogenous proteinases that induce target cell apoptosis. *Immunol Today.* 16: 202-206.

Shafer-Weaver, K., et al. 2003. The Granzyme B ELISPOT assay: an alternative to the 51Cr-release assay for monitoring cell-mediated cytotoxicity. *J. Translational Med.* 1: 14.

Rininsland, F., et al. 2000. Granzyme B ELISPOT assay for ex vivo measurements of T cell immunity. *J Immunol Meth.* 240:143-155.

### Related Products

12-4714 Mouse IgG1 K Isotype Control PE (P3.6.2.1)

14-8021 Mouse IL-2 Recombinant Protein

14-8029 Human IL-2 Recombinant Protein

17-5971 Anti-Mouse CD49b (Integrin alpha 2) APC (DX5)

17-9994 Anti-Human Perforin APC (dG9 (delta G9))

25-8898 Anti-Mouse Granzyme B PE-Cy7 (NGZB)  
88-8022 Mouse Granzyme B ELISA Ready-SET-Go!®  
88-8399 Human Granzyme B ELISPOT Ready-SET-Go!®  
88-8823 Fixation & Permeabilization Buffers

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