Datasheet for ABIN1981897

# anti-Perforin 1 antibody (PE)

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## Overview

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| Quantity: | 100 tests |
| Target: | Perforin 1 (PRF1) |
| Reactivity: | Human, Cow |
| Host: | Mouse |
| Clonality: | Monoclonal |
| Conjugate: | This Perforin 1 antibody is conjugated to PE |
| Application: | Flow Cytometry (FACS) |

## Product Details

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| Immunogen: | purified granules from human YT lymphoma cell line |
| Clone: | DG9 |
| Isotype: | IgG2b kappa |
| Specificity: | The mouse monoclonal antibody dG9 (also known as deltaG9) recognizes perforin, a 70 kDa protein expressed in cytoplasmic granules of cytotoxic T cells and NK cells. |
| No Cross-Reactivity: | Mouse |
| Cross-Reactivity (Details): | Human, Bovine |
| Purification: | Purified antibody is conjugated with R-phycoerythrin (PE) under optimum conditions. Unconjugated antibody and free fluorochrome are removed by size-exclusion chromatography. |

## Target Details

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| Target: | Perforin 1 (PRF1) |
| Alternative Name: | Perforin (PRF1 Products) |
| Background: | Perforin 1,Perforin is a 70 kDa cytolytic protein with structural and functional similarities to complement component 9 (C9). It is stored in cytoplasmic granules of cytotoxic T cells and NK cells and after its release it forms transmembrane pores in the target cells to kill it. As perforin is a key effector molecule for cell-mediated cytolysis, defects of its gene can cause severe disorders.,PRF1, P1, PFP, HPLH2 |
| Gene ID: | 5551 |
| UniProt: | P14222 |
| Pathways: | Apoptosis, Caspase Cascade in Apoptosis |

## Application Details

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| Application Notes: | Flow cytometry: The reagent is designed for analysis of human blood cells using 10 µL reagent / 100 µL of whole blood or $10^6$ cells in a suspension. The content of a vial (1 ml) is sufficient for 100 tests. Intracellular staining. |
| Comment: | The purified antibody is conjugated with R-Phycoerythrin (PE) under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary. |
| Restrictions: | For Research Use only |

## Handling

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| Buffer: | Stabilizing phosphate buffered saline (PBS), pH 7.4, 15 mM sodium azide |
| Preservative: | Sodium azide |
| Precaution of Use: | This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only. |
| Handling Advice: | Do not freeze. Avoid prolonged exposure to light.<br>Do not use after expiration date stamped on vial label.<br>Short-term exposure to room temperature should not affect the quality of the reagent. However, if reagent is stored under any conditions other than those specified, the conditions must be verified by the user. |
| Storage: | 4 °C |

## Handling

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| Storage Comment: | Store at 2-8°C. Protect from prolonged exposure to light. Do not freeze. |

## Publications

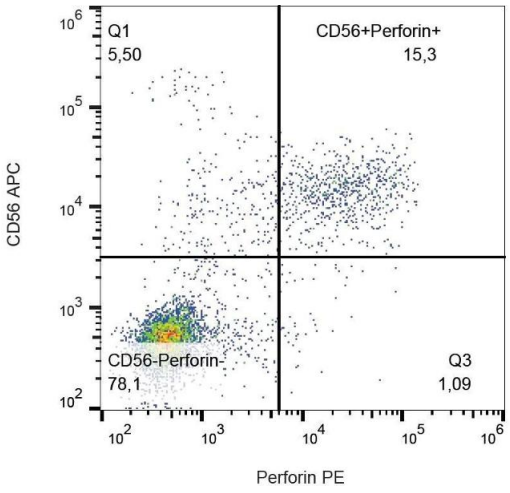
Product cited in:

Qiu, Chen, Liao, Zhang, Wang, Li, Luo, Fang, Li, Zhou, Shen, Chen, Huang, Cai, Cao, Jiang, Zeng, Chen: "Tim-3-expressing CD4+ and CD8+ T cells in human tuberculosis (TB) exhibit polarized effector memory phenotypes and stronger anti-TB effector functions." in: **PLoS pathogens**, Vol. 8, Issue 11, pp. e1002984, (2012) (PubMed).

Takeuchi, Inoue, Otani, Yamasaki, Nakamura, Kibata: "Cell-in-cell structures formed between human cancer cell lines and the cytotoxic regulatory T-cell line HOZOT." in: **Journal of molecular cell biology**, Vol. 2, Issue 3, pp. 139-51, (2010) (PubMed).

Hersperger, Makedonas, Betts: "Flow cytometric detection of perforin upregulation in human CD8 T cells." in: **Cytometry. Part A : the journal of the International Society for Analytical Cytology**, Vol. 73, Issue 11, pp. 1050-7, (2008) (PubMed).

## Images




**Flow Cytometry**

**Image 1.** Intracellular staining of perforin in human peripheral blood cells with anti-perforin (dG9) PE.