



Datasheet for ABIN1981903  
**anti-Perforin 1 antibody**



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### Overview

Quantity:	0.1 mg
Target:	Perforin 1 (PRF1)
Reactivity:	Human, Cow
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This Perforin 1 antibody is un-conjugated
Application:	Flow Cytometry (FACS), Immunoprecipitation (IP), Immunocytochemistry (ICC), Immunohistochemistry (Frozen Sections) (IHC (fro)), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p))

### Product Details

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 by protein-A affinity chromatography.
Purity:	> 95 % (by SDS-PAGE)

## Target Details

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Target:	Perforin 1 (PRF1)
Alternative Name:	Perforin ( <a href="#">PRF1 Products</a> )
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 cytotoxicity, defects of its gene can cause severe disorders., PRF1, P1, PFP, HPLH2
Gene ID:	5551
UniProt:	<a href="#">P14222</a>
Pathways:	<a href="#">Apoptosis, Caspase Cascade in Apoptosis</a>

## Application Details

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Application Notes:	Flow cytometry: Recommended dilution: 3-12 µg/mL. Intracellular staining.
Restrictions:	For Research Use only

## Handling

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Concentration:	1 mg/mL
Buffer:	Tris buffered saline (TBS), pH 8.0, 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. Do not use after expiration date stamped on vial label.
Storage:	4 °C
Storage Comment:	Store at 2-8°C. Do not freeze.

## Publications

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Product cited in: Li, Jeong, Song: "Molecular Characteristics and Distribution of Adult Human Corneal Immune Cell Types." in: , Vol. 13, pp. 798346, (2022) ([PubMed](#)).

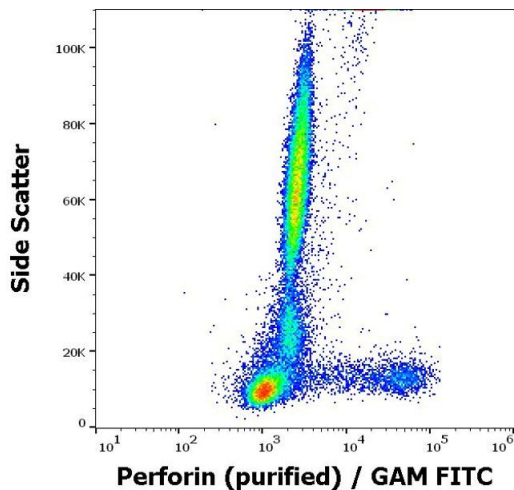
Qiu, Chen, Liao, Zhang, Wang, Li, Luo, Fang, Li, Zhou, Shen, Chen, Huang, Cai, Cao, Jiang, Zeng,

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](#)).

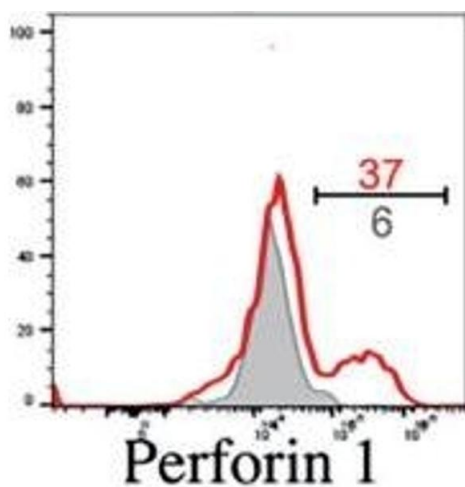
Hersperger, Makedonas, Betts: "Flow cytometric detection of perforin upregulation in human CD8 T cells." in: **Cytometry. Part A : the journal of the International Society for Analytical Cytology**, Vol. 73, Issue 11, pp. 1050-7, (2008) ([PubMed](#)).

Images



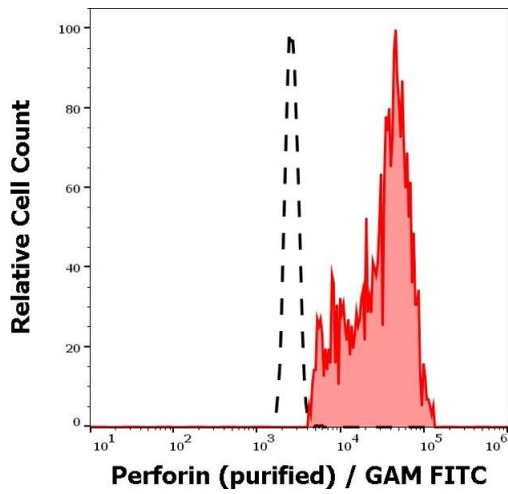
Flow Cytometry

**Image 1.** Flow cytometry intracellular staining pattern of human peripheral whole blood stained using anti-human Perforin (dG9) purified antibody (concentration in sample 2 µg/mL, GAM FITC).



Flow Cytometry

**Image 2.** Antiviral effector CD8+ T cells are a predominant lymphocyte subset on the cornea. Expressions of Perforin 1 on corneal CD8+ T cells by flow cytometry. Source: PMID35280984



### Flow Cytometry

**Image 3.** Separation of perforin positive lymphocytes (red-filled) from neutrophil granulocytes (black-dashed) in flow cytometry analysis (intracellular staining) of human peripheral whole blood using anti-human perforin (dG9) purified antibody (concentration in sample 2  $\mu\text{g}/\text{mL}$ , GAM FITC).