

# Anti-Human Perforin Antibody, Clone deltaG9, PE

Mouse monoclonal antibody against human perforin, PE-conjugated

Catalog #100-1456

120 Tests

1.6 µL/test

## Product Description

This mouse monoclonal antibody (clone deltaG9) reacts with human perforin. Perforin is an ~70 kDa protein consisting of four domains: the N- and C-termini, which are related to its function, and two central domains that share similarities to complement proteins C6 - C9. Perforin is involved in the perforin/granzyme apoptosis pathway and is produced by natural killer and cytotoxic T cells. Upon contact with a target cell, perforin monomers are released and aggregate to form pores in the membrane of the target cell, disrupting its membrane integrity. This allows granzyme B to enter the target cell and initiate apoptosis of virally infected and transformed cells. The deltaG9 antibody is suitable for the detection of intracellular perforin by flow cytometry.

<b>Target Antigen:</b>	Perforin
<b>Alternative Names:</b>	Cytolysin, lymphocyte pore forming protein, P1, perforin 1, PFP
<b>Gene ID:</b>	5551
<b>Species Reactivity:</b>	Human
<b>Host Species:</b>	Mouse
<b>Clonality:</b>	Monoclonal
<b>Clone:</b>	deltaG9
<b>Isotype:</b>	IgG2b, kappa
<b>Immunogen:</b>	Purified granules from human YT lymphoma cell line
<b>Conjugate:</b>	PE (Phycoerythrin)

## Applications

Verified Applications: FC

Reported Applications: FC

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence-activated cell sorting; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IHC-P: Immunohistochemistry (paraffin-embedded); IP: Immunoprecipitation; RIA: Radioimmunoassay; WB: Western blotting

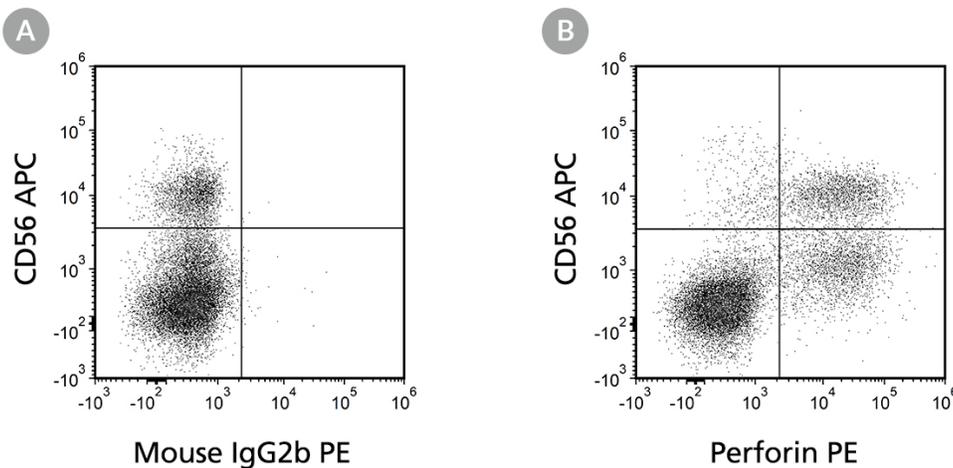
## Properties

**Purification:** The antibody was purified by affinity chromatography and conjugated with PE. The solution is free of unconjugated PE.

**Stability and Storage:** Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect product from prolonged exposure to light. Stable until expiry date (EXP) on label.

**Directions for Use:** For flow cytometry, the suggested use of this reagent is 1.6 µL per  $5 \times 10^5$  cells in 80 µL. It is recommended that the antibody be titrated for optimal performance for each application.

## Data



**Figure 1. Flow Cytometry Analysis of Human NK Cells Labeled With Kappa PE Isotype Control and Clone deltaG9, PE Antibodies**

(A) Flow cytometry analysis of human NK cells labeled with Mouse IgG2b, kappa PE Isotype Control antibody and anti-human CD56 antibody, clone HCD56, APC (Catalog #60021AZ). (B) Flow cytometry analysis of human NK cells labeled with anti-human perforin Antibody, Clone deltaG9, PE and anti-human CD56 antibody, clone HCD56, APC (Catalog #60021AZ).

## Related Products

For a complete list of antibodies, including other conjugates, sizes, and clones, as well as related products available from STEMCELL Technologies, visit [www.stemcell.com/antibodies](http://www.stemcell.com/antibodies), or contact us at [techsupport@stemcell.com](mailto:techsupport@stemcell.com).

## References

Liu CC et al. (1995) Perforin: structure and function. *Immunol Today* 16(4): 194–201.

Osińska I et al. (2014) Perforin: an important player in immune response. *Cent Eur J Immunol* 39(1): 109–115.

Tovar Salazar A et al. (2019) Immune correlates of herpes zoster in people living with HIV on effective antiretroviral therapy. *AIDS Res Hum Retroviruses* 35(10): 890–95.

Trapani JA & Smyth MJ. (2002) Functional significance of the perforin/granzyme cell death pathway. *Nat Rev Immunol* 2(10): 735–47.

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