

## Purified anti-human Perforin Antibody

<b>Catalog# / Size</b>	308102 / 100 µg
<b>Clone</b>	dG9
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	PRF1, P1, PFP, HPLH2
<b>Isotype</b>	Mouse IgG2b, κ
<b>Description</b>	Perforin is a 70 kD cytolytic protein that is expressed in the cytoplasmic granules of cytotoxic T lymphocytes (CTLs) and natural killer (NK) cells. Perforin is one of the major effector molecules used by cytotoxic T cells and NK cells to mediate targeted cell lysis.

### Product Details

---

<b>Verified Reactivity</b>	Human
<b>Reported Reactivity</b>	Cow
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Immunogen</b>	Purified granules from the human lymphoma cell line
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
<b>Preparation</b>	The antibody was purified by affinity chromatography.
<b>Concentration</b>	0.5 mg/mL
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C.
<b>Application</b>	<a href="#">ICFC - Quality tested</a> <a href="#">IP, ICC, IHC - Reported in the literature, not verified in house</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">intracellular immunofluorescent staining with flow cytometric analysis</a> . For flow cytometric staining, the suggested use of this reagent is ≤ 0.06 µg per million cells in 100 µL volume. It is recommended that the reagent be titrated for optimal performance for each application.
<b>Application Notes</b>	Clone dG9 primarily recognizes perforin associated with cytotoxic granules <sup>9</sup> . Additional reported applications (for the relevant formats) include: immunoprecipitation, intracellular flow cytometric analysis and immunofluorescence microscopy <sup>5,7</sup> , and immunohistochemical staining of acetone-fixed frozen tissue sections and formalin-fixed paraffin-embedded tissue sections <sup>1,4</sup> .  Does not cross-react with mouse <sup>1</sup> .
<b>Application References</b>	<ol style="list-style-type: none"> <li>1. Hameed A, <i>et al.</i> 1992. <i>Am. J. Pathol.</i> 140:1025. (IHC)</li> <li>2. Schaeferli P, <i>et al.</i> 2004. <i>J. Exp. Med.</i> 199:1265.</li> <li>3. Watanabe N, <i>et al.</i> 1997. <i>Blood</i> 90:3662.</li> <li>4. Mauad T, <i>et al.</i> 2004. <i>Pediatr. Pulmonol.</i> 38:233. (IHC)</li> <li>5. Barrat FJ, <i>et al.</i> 1999. <i>P. Natl. Acad. Sci. USA</i> 96:8645. (IF)</li> <li>6. Chen H, <i>et al.</i> 2005. <i>J. Immunol.</i> 175:591.</li> <li>7. Bryceson YT, <i>et al.</i> 2007. <i>Blood</i> doi:10.1182/blood-2007-02-074468. (IF)</li> <li>8. Wood SM, <i>et al.</i> 2009. <i>Blood</i> 114:4117. <a href="#">PubMed</a></li> <li>9. Makedonas G, <i>et al.</i> 2010. <i>PLoS Pathog.</i> 6:e1000798.</li> </ol>
<b>Product Citations</b>	<ol style="list-style-type: none"> <li>1. Trinks N, <i>et al.</i> 2021. <i>Commun Biol.</i> 4:1151. <a href="#">PubMed</a></li> <li>2. Crespo AC, <i>et al.</i> 2020. <i>Cell.</i> 182(5):1125-1139. <a href="#">PubMed</a></li> <li>3. Mann ER, <i>et al.</i> 2020. <i>Sci Immunol.</i> :5. <a href="#">PubMed</a></li> <li>4. Dean JW, <i>et al.</i> 2020. <i>J Autoimmun.</i> 108:102417. <a href="#">PubMed</a></li> <li>5. Del Alcazar D, <i>et al.</i> 2019. <i>Cell Rep.</i> 28:3047. <a href="#">PubMed</a></li> </ol>

6. Mace E, Orange J 2014. J Vis Exp. 85: 51100. [PubMed](#)  
7. Wood S, et al. 2009. Blood. 114:4117. [PubMed](#)

RRID AB\_314700 (BioLegend Cat. No. 308102)

## Antigen Details

---

<b>Structure</b>	70 kD
<b>Distribution</b>	CTL, NK (cytoplasmic granules)
<b>Function</b>	Mediates targeted cell lysis
<b>Cell Type</b>	NK cells, T cells
<b>Biology Area</b>	Cell Biology, Immunology, Innate Immunity, Neuroscience
<b>Molecular Family</b>	Cytokines/Chemokines
<b>Antigen References</b>	1. Lieberman J. 2003. <i>Nat. Rev. Immunol.</i> 3:361. 2. Trapani J, et al. 2002. <i>Nat. Rev. Immunol.</i> 2:735.
<b>Gene ID</b>	<a href="#">5551</a>

## Related Protocols

---

[Surface and Intracellular Cytokine Staining for Flow Cytometry - Video](#)

[Intracellular Flow Cytometry Staining Protocol](#)

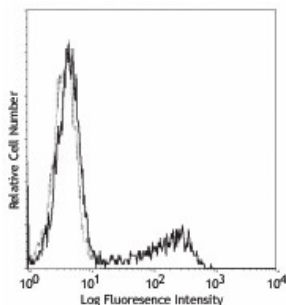
## Other Formats

---

FITC anti-human Perforin, PE anti-human Perforin, Purified anti-human Perforin, Alexa Fluor® 488 anti-human Perforin, Alexa Fluor® 647 anti-human Perforin, APC anti-human Perforin, Pacific Blue™ anti-human Perforin, PerCP/Cyanine5.5 anti-human Perforin, Brilliant Violet 510™ anti-human Perforin, Brilliant Violet 421™ anti-human Perforin, Alexa Fluor® 594 anti-human Perforin, APC/Cyanine7 anti-human Perforin, PE/Cyanine7 anti-human Perforin, Brilliant Violet 711™ anti-human Perforin, PE/Dazzle™ 594 anti-human Perforin

## Product Data

---



Whole blood lymphocytes stained intracellularly with dG9 FITC

For research use only. Not for diagnostic use. Not for resale. BioLegend will not be held responsible for patent infringement or other violations that may occur with the use of our products.

\*These products may be covered by one or more Limited Use Label Licenses (see the BioLegend Catalog or our website, [www.biolegend.com/ordering#license](http://www.biolegend.com/ordering#license)). BioLegend products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products, reverse engineer functionally similar materials, or to provide a service to third parties without written approval of BioLegend. By use of these products you accept the terms and conditions of all applicable Limited Use Label Licenses. Unless otherwise indicated, these products are for research use only and are not intended for human or animal diagnostic, therapeutic or commercial use.

Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587