

## PerCP/Cyanine5.5 anti-human/mouse Granzyme B Recombinant Antibody

<b>Catalog# / Size</b>	372211 / 25 tests 372212 / 100 tests
<b>Clone</b>	QA16A02
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	Granzyme 2, cytotoxic T-lymphocyte-associated serine esterase 1, GZMB, CCP1, Asp-ase Granzyme 2, cytotoxic T-lymphocyte-associated serine esterase 1, GZMB, CCP1, Asp-ase
<b>Isotype</b>	Mouse IgG1, κ
<b>Description</b>	Granzyme B is a 32 kD serine protease, also known as granzyme-2, serine protease B, CCP1, Asp-ase, and CTLA-1. Granzyme B is abundantly stored in the granules of cytotoxic T lymphocytes and NK cells. Low level of expression has been reported in granulocytes, B cells, and activated dendritic cells. Granzyme B is crucial for rapid induction of cell death and apoptosis through interaction with mannose-6-phosphate receptor.

### Product Details

<b>Verified Reactivity</b>	Human, Mouse
<b>Antibody Type</b>	Recombinant
<b>Host Species</b>	Mouse
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
<b>Preparation</b>	The antibody was purified by affinity chromatography and conjugated with PerCP/Cyanine5.5 under optimal conditions.
<b>Concentration</b>	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our <a href="#">Concentration and Expiration Lookup</a> or <a href="#">Certificate of Analysis</a> online tools.)
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">ICFC - Quality tested</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 5 µL per million cells in 100 µL staining volume or 5 µL per 100 µL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.  * PerCP/Cyanine5.5 has a maximum absorption of 482 nm and a maximum emission of 690 nm.
<b>Excitation Laser</b>	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
<b>Additional Product Notes</b>	BioLegend is in the process of converting the name PerCP/Cy5.5 to PerCP/Cyanine5.5. The dye molecule remains the same, so you should expect the same quality and performance from our PerCP/Cyanine5.5 products. Contact <a href="#">Technical Service</a> if you have any questions.
<b>Product Citations</b>	<ol style="list-style-type: none"> <li>1. Park SY, <i>et al.</i> 2022. NPJ Vaccines. 7:123. <a href="#">PubMed</a></li> <li>2. Xiong A, <i>et al.</i> 2022. EBioMedicine. 83:104239. <a href="#">PubMed</a></li> <li>3. Chen X, <i>et al.</i> 2021. Cell Rep. 37:109991. <a href="#">PubMed</a></li> <li>4. Valestrand L, <i>et al.</i> 2022. Am J Pathol. . <a href="#">PubMed</a></li> <li>5. Li Z, <i>et al.</i> 2022. Nat Commun. 13:6321. <a href="#">PubMed</a></li> <li>6. Fang Y, <i>et al.</i> 2021. J Clin Invest. 131:00:00. <a href="#">PubMed</a></li> <li>7. Montalban-Arques A, <i>et al.</i> 2021. Cell Host Microbe. .: <a href="#">PubMed</a></li> <li>8. Han P, <i>et al.</i> 2020. Sci Adv. 6:eaaz1580. <a href="#">PubMed</a></li> <li>9. Prosser A, <i>et al.</i> 2021. STAR Protoc. 2:100810. <a href="#">PubMed</a></li> <li>10. Li CY, <i>et al.</i> 2022. Int J Mol Sci. 23:.. <a href="#">PubMed</a></li> </ol>
<b>RRID</b>	AB_2728378 (BioLegend Cat. No. 372211)

## Antigen Details

<b>Structure</b>	32 kD serine protease
<b>Distribution</b>	Cytotoxic T cells, NK cells, and neutrophils, low on granulocytes, B cells and activated dendritic cells
<b>Function</b>	Granzyme B is able to induce target cell apoptosis by activating caspase independent pathways. Granzyme B is induced in CD8 <sup>+</sup> T lymphocytes with ConA/ IL-2 and CD4 <sup>+</sup> T lymphocytes with anti CD3/CD28 or CD3/CD46.
<b>Interaction</b>	Caspase-3
<b>Ligand/Receptor</b>	Mannose-6-phosphate receptor
<b>Cell Type</b>	T cells, NK cells, Neutrophils
<b>Biology Area</b>	Cell Biology, Immunology, Innate Immunity, Neuroscience
<b>Molecular Family</b>	Proteases, Enzymes and Regulators
<b>Antigen References</b>	<ol style="list-style-type: none"> <li>1. Estebanez-Perpina E, <i>et al.</i> 2000. <i>Biol Chem.</i> 381:1203.</li> <li>2. Griffiths GM. And S. Isaza, <i>et al.</i> 1993. <i>J. Cell Biol.</i> 120:885.</li> <li>3. Spaeny-Dekking EH, <i>et al.</i> 1998. <i>J. Immunol.</i> 160:3610.</li> <li>4. Wagner C, <i>et al.</i> 2008. <i>Mol. Immunol.</i> 45:1761.</li> </ol>
<b>Gene ID</b>	<a href="#">3002</a> <a href="#">14939</a>

## Related Protocols

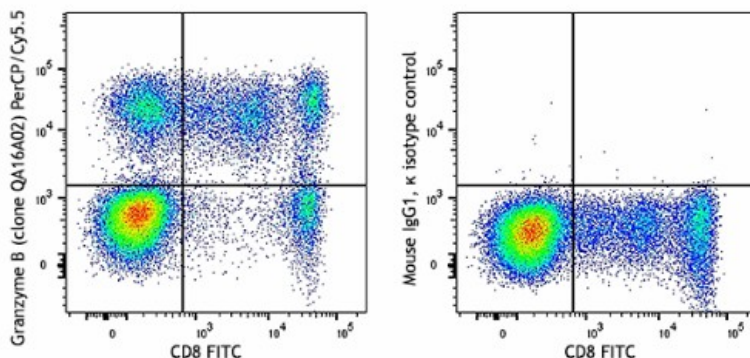
[Surface and Intracellular Cytokine Staining for Flow Cytometry - Video](#)

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## Other Formats

Purified anti-human/mouse Granzyme B Recombinant Antibody, APC anti-human/mouse Granzyme B Recombinant Antibody, FITC anti-human/mouse Granzyme B Recombinant Antibody, PE anti-human/mouse Granzyme B Recombinant Antibody, PE/Cyanine7 anti-human/mouse Granzyme B Recombinant Antibody, Alexa Fluor® 700 anti-human/mouse Granzyme B Recombinant Antibody, Pacific Blue™ anti-human/mouse Granzyme B Recombinant Antibody, PerCP/Cyanine5.5 anti-human/mouse Granzyme B Recombinant Antibody, PE/Dazzle™ 594 anti-human/mouse Granzyme B Recombinant Antibody, Alexa Fluor® 647 anti-human/mouse Granzyme B Recombinant Antibody, APC/Fire™ 750 anti-human/mouse Granzyme B Recombinant Antibody, PE/Cyanine5 anti-human/mouse Granzyme B Recombinant Antibody

## Product Data



Human peripheral blood mononuclear cells were stained with CD8 FITC, fixed, permeabilized, and then stained with Granzyme B (clone QA16A02, left) PerCP/Cyanine5.5 or mouse IgG1, κ PerCP/Cyanine5.5 isotype control (right).

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