

## FITC anti-human/mouse Granzyme B Antibody

<b>Catalog# / Size</b>	515403 / 25 tests
<b>Clone</b>	GB11
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	Granzyme-2, serine protease B, CCP1, Asp-ase, CTLA-1
<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

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<b>Verified Reactivity</b>	Human, Mouse
<b>Reported Reactivity</b>	Rat
<b>Antibody Type</b>	Monoclonal
<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 FITC 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.
<b>Excitation Laser</b>	Blue Laser (488 nm)
<b>Application References</b>	<ol style="list-style-type: none"> <li>1. Wever PC, <i>et al.</i> 1998. <i>Immunology</i>. 93:383</li> <li>2. Arens R, <i>et al.</i> 2004. <i>J. Exp. Med.</i> 199:1595</li> <li>3. Lima M, <i>et al.</i> 2003. <i>Am. J. Pathol.</i> 163:763</li> <li>4. Wiede F, <i>et al.</i> 2014. <i>J Autoimmun.</i> 53:105. <a href="#">PubMed</a></li> <li>5. Baker GF, <i>et al.</i> 2014. <i>Cancer Res.</i> 74:5079. <a href="#">PubMed</a></li> <li>6. Nacer A, <i>et al.</i> 2014. <i>PLoS Pathog.</i> 10:1004528. <a href="#">PubMed</a></li> <li>7. Sharma SK, <i>et al.</i> 2015. <i>J Immunol.</i> 194:5529. <a href="#">PubMed</a></li> </ol>
<b>(PubMed link indicates BioLegend citation)</b>	
<b>Product Citations</b>	<ol style="list-style-type: none"> <li>1. Chan LC, <i>et al.</i> 2019. <i>J Clin Invest.</i> 129:3324. <a href="#">PubMed</a></li> <li>2. Ajith A, <i>et al.</i> 2021. <i>Front Immunol.</i> 12:687715. <a href="#">PubMed</a></li> <li>3. Wu MJ, <i>et al.</i> 2022. <i>Cancer Discov.</i> 12:812. <a href="#">PubMed</a></li> <li>4. AbuEid M, <i>et al.</i> 2021. <i>iScience.</i> 24(6):102653. <a href="#">PubMed</a></li> <li>5. Donnarumma T, <i>et al.</i> 2016. <i>Cell Rep.</i> 17:1571-1583. <a href="#">PubMed</a></li> <li>6. Baker G, <i>et al.</i> 2014. <i>Cancer Res.</i> 74:5079. <a href="#">PubMed</a></li> <li>7. Denk D, <i>et al.</i> 2022. <i>Immunity.</i> 55:2059. <a href="#">PubMed</a></li> <li>8. Wang W, <i>et al.</i> 2022. <i>World J Gastrointest Oncol.</i> 14:1124. <a href="#">PubMed</a></li> <li>9. van Vloten JP, <i>et al.</i> 2022. <i>J Immunother Cancer.</i> 10:. <a href="#">PubMed</a></li> <li>10. Leeansyah E, <i>et al.</i> 2015. <i>PLoS Pathog.</i> 11: 1005072. <a href="#">PubMed</a></li> <li>11. Shen T, <i>et al.</i> 2019. <i>Cell Death Discov.</i> 5:123. <a href="#">PubMed</a></li> </ol>

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**RRID** AB\_2114575 (BioLegend Cat. No. 515403)

## Antigen Details

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<b>Structure</b>	32 kD serine protease
<b>Distribution</b>	Cytotoxic T-cells and NK cells, low on granulocytes, B cells and activated dendritic cells
<b>Function</b>	Induction of cell death and apoptosis
<b>Ligand/Receptor</b>	Mannose-6-phosphate receptor
<b>Cell Type</b>	B cells, Dendritic cells, NK cells, T cells
<b>Biology Area</b>	Cell Biology, Immunology, Innate Immunity, Neuroscience
<b>Molecular Family</b>	Enzymes and Regulators, Proteases
<b>Antigen References</b>	1. Estebanez-Perpina E, <i>et al.</i> 2000. <i>Biol Chem</i> . 381:1203 2. Griffiths GM. And S. Isaza, <i>et al.</i> 1993. <i>J. Cell Biol</i> . 120:885 3. Spaeny-Dekking EH, <i>et al.</i> 1998. <i>J. Immunol</i> . 160:3610 4. Wagner C, <i>et al.</i> 2008. <i>Mol. Immunol</i> . 45:1761
<b>Gene ID</b>	<a href="#">3002</a> <a href="#">14939</a> <a href="#">171528</a>

## Related Protocols

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

[Intracellular Flow Cytometry Staining Protocol](#)

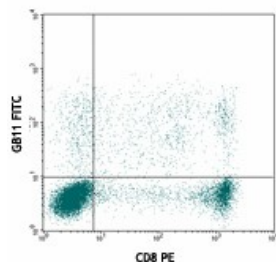
## Other Formats

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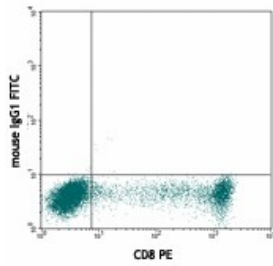
FITC anti-human/mouse Granzyme B, Alexa Fluor® 647 anti-human/mouse Granzyme B, Pacific Blue™ anti-human/mouse Granzyme B

## Product Data

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Human peripheral blood lymphocytes surface stained with CD8 PE, then intracellularly stained with GB11 FITC



Human peripheral blood lymphocytes surface stained with CD8 PE, then intracellular stained with mouse IgG1 FITC isotype control

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