

FITC anti-human/mouse Granzyme B Recombinant Antibody

Catalog# / Size	372205 / 25 tests 372206 / 100 tests
Clone	QA16A02
Regulatory Status	RUO
Other Names	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
Isotype	Mouse IgG1, κ
Description	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

Verified Reactivity	Human, Mouse
Antibody Type	Recombinant
Host Species	Mouse
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
Preparation	The antibody was purified by affinity chromatography and conjugated with FITC under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.)
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	ICFC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by intracellular immunofluorescent staining with flow cytometric analysis . For flow cytometric staining, the suggested use of this reagent is 5 μ l per million cells in 100 μ l staining volume or 5 μ l per 100 μ l of whole blood.
Excitation Laser	Blue Laser (488 nm)
Product Citations	<ol style="list-style-type: none"> Liu Y, <i>et al.</i> 2021. Cell Metabolism. 33(6):1221-1233.e11. PubMed Garcia-Fabiani MB, <i>et al.</i> 2020. Methods Enzymol. 632:369. PubMed Lamichhane R, <i>et al.</i> 2020. Eur J Immunol. 50:178. PubMed Dong L, <i>et al.</i> 2021. Cancer Cell. . PubMed Klarquist J, <i>et al.</i> 2021. Cell Rep. 36:109591. PubMed Zhao B, <i>et al.</i> 2020. Nat Commun. 11:908. PubMed Li K, <i>et al.</i> 2022. J Immunother Cancer. 10:. PubMed Jiang H, <i>et al.</i> 2021. Oncoimmunology. 10:1943180. PubMed Liu H, <i>et al.</i> 2020. Cancer Cell. 37(3):324-339. PubMed Yang P, <i>et al.</i> 2022. Nat Commun. 13:5782. PubMed Li H, <i>et al.</i> 2021. Adv Sci (Weinh). 2001596:8. PubMed Sun Y, <i>et al.</i> 2020. Cell. 184(2):404-421.e16. PubMed Takahashi F, <i>et al.</i> 2022. iScience. 25:104278. PubMed Wu J, <i>et al.</i> 2021. STAR Protoc. 2:101022. PubMed Li F, <i>et al.</i> 2022. Nat Commun. 13:4334. PubMed Saraiva DP, <i>et al.</i> 2018. Front Immunol. 2:184027778. PubMed Lu H, <i>et al.</i> 2020. Am J Reprod Immunol. 83:. PubMed Su Y, <i>et al.</i> 2020. Cell. 1479:183. PubMed Shen H, <i>et al.</i> 2022. Nat Commun. 13:5013. PubMed Lamichhane R <i>et al.</i> 2019. Cell Rep. 28(12):3061-3076 . PubMed

21. Li M, *et al.* 2020. *Virology*. 535:588. [PubMed](#)
 22. Tang X, *et al.* 2020. *Sci Adv.* 6:eaaz0374. [PubMed](#)
 23. Ye Y, *et al.* 2020. *Genome Med.* 0.557638889. [PubMed](#)

RRID AB_2687029 (BioLegend Cat. No. 372205)
 AB_2687030 (BioLegend Cat. No. 372206)

Antigen Details

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

Related Protocols

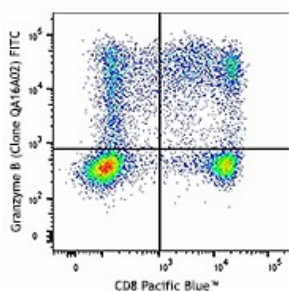
[Surface and Intracellular Cytokine Staining for Flow Cytometry - Video](#)

[Intracellular Flow Cytometry Staining Protocol](#)

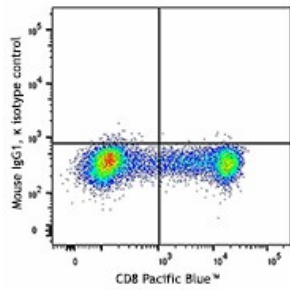
Other Formats

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 Pacific Blue™, fixed and permeabilized, and then stained with Granzyme B FITC (clone QA16A02, top) or mouse IgG1, κ FITC isotype control (bottom).



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