

PE anti-human/mouse Granzyme B Recombinant Antibody

Catalog# / Size	372207 / 25 tests 372208 / 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 PE 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 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
Product Citations	<ol style="list-style-type: none"> Dong MB, <i>et al.</i> 2020. Cell. 178(5):1189-1204.e23.. PubMed Yang Z, <i>et al.</i> 2022. J Immunother Cancer. 10:.. PubMed Chen L, <i>et al.</i> 2022. Mol Ther Oncolytics. 24:522. PubMed Liu X, <i>et al.</i> 2020. Nature. . PubMed Yang X, <i>et al.</i> 2021. Front Pharmacol. 12:771046. PubMed Ostendorf BN, <i>et al.</i> 2020. Nat Med. 26:1048. PubMed Fumagalli V, <i>et al.</i> 2020. J Exp Med. :217. PubMed Subham S, <i>et al.</i> 2022. Breast Cancer Res Treat. Online ahead of print. PubMed Jiang Y, <i>et al.</i> 2020. Clin Immunol. 218:108516. PubMed Uchil PD <i>et al.</i> 2018. Cell host & microbe. 25(1):87-100 . PubMed Alsaleh G, <i>et al.</i> 2020. Elife. 9: . PubMed Guo W, <i>et al.</i> 2022. J Immunother Cancer. 10:.. PubMed Hubrack S, <i>et al.</i> 2021. Sci Rep. 11:14090. PubMed Zhu S, <i>et al.</i> 2022. J Oncol. 2022:8724933. PubMed Su X, <i>et al.</i> 2022. J Transl Med. 20:378. PubMed Zhong G, <i>et al.</i> 2022. Oncoimmunology. 11:2114740. PubMed Zhang X, <i>et al.</i> 2020. Endocr Relat Cancer. 27:469. PubMed Yeo L, <i>et al.</i> 2018. J Clin Invest. 128:3460. PubMed Feng Y, <i>et al.</i> 2022. Life (Basel). 12:.. PubMed

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RRID AB_2687031 (BioLegend Cat. No. 372207)
 AB_2687032 (BioLegend Cat. No. 372208)

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. Isaz, <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

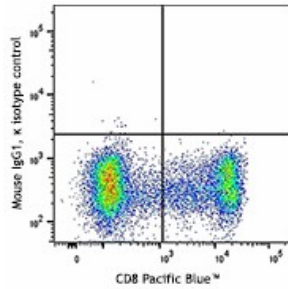
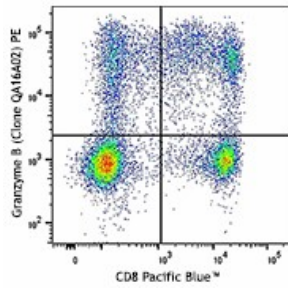
[Surface and Intracellular Cytokine Staining for Flow Cytometry - Video](#)

[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 PE (clone QA16A02, top) or mouse IgG1, κ PE isotype control (bottom).

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