Brilliant Violet 605™ anti-human/mouse Granzyme B Recombinant Antibody

Catalog# / Size	396433 / 25 tests 396434 / 100 tests
Clone	QA18A28
Regulatory Status	RUO
Other Names	Granzyme 2, cytotoxic T-lymphocyte-associated serine esterase 1, GZMB, CCP1, Asp-aseGranzyme 2, cytotoxic T-lymphocyte-associated serine esterase 1, GZMB, CCP1, Asp-ase
Isotype	Rat 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	Rat
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 Brilliant Violet 605™ under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration and expiration, please enter the lot number in our Certificate of Analysis online tool.)
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 flow cytometry using our Cyto-Fast™ Fix/Perm Buffer Set. For flow cytometric staining, the suggested use of this reagent is 5 µL per 10^6 cells in 100 µL volume. It is highly recommended that the reagent be titrated for optimal performance for each application. Brilliant Violet 605™ excites at 405 nm and emits at 603 nm. The bandpass filter 610/20 nm is recommended for detection, although filter optimization may be required depending on other fluorophores used. Be sure to verify that your cytometer configuration and software setup are appropriate for detecting this channel. Refer to your instrument manual or manufacturer for support. Brilliant Violet 605™ is a trademark of Sirigen Group Ltd. Learn more about Brilliant Violet™. This product is subject to proprietary rights of Sirigen Inc. and is made and sold under license from Sirigen Inc. The purchase of this product conveys to the buyer a non-transferable right to use the purchased product for research purposes only. This product may not be resold or incorporated in any manner into another product for resale. Any use for therapeutics or diagnostics is strictly prohibited. This product is covered by U.S. Patent(s), pending patent applications and foreign equivalents.
Excitation Laser	Violet Laser (405 nm)
Application Notes	Clone QA18A28 is compatible with Fixation buffer (Cat. No. 420801) and Intracellular Staining Permeabilization Wash Buffer (Cat. No. 421002) in both C57BL/6 splenocytes and human PBMC.

QA18A28 is also compatible with True-Nuclear™ Transcription Factor Buffer Set (Cat. No. 424401).

RRID	AB_3662292 (BioLegend Cat. No. 396433) AB_3662292 (BioLegend Cat. No. 396434)

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	Neutrophils, T cells
Biology Area	Cell Biology, Immunology, Innate Immunity, Neuroscience
Molecular Family	Enzymes and Regulators, Proteases
Antigen References	1. Estebanez-Perpina E, *et al.* 2000. *Biol Chem.* 381:1203. 2. Griffiths GM. And S. Isaaz, *et al.* 1993. *J. Cell Biol.* 120:885. 3. Spaeny-Dekking EH, *et al.* 1998. *J. Immunol.* 160:3610. 4. Wagner C, *et al.* 2008. *Mol. Immunol.* 45:1761.
Gene ID	3002 14939

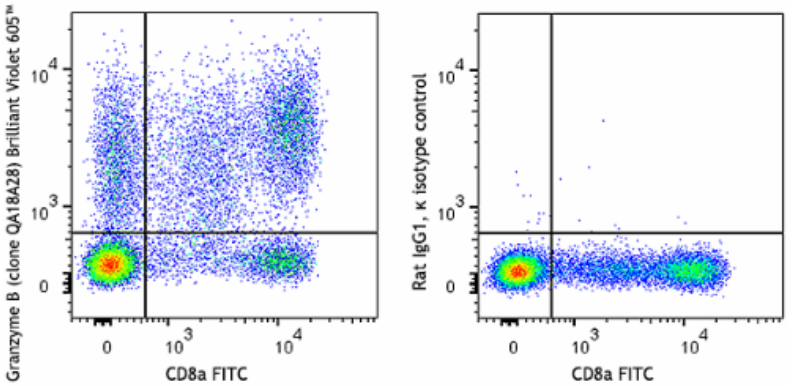
Related Protocols

- Intracellular Flow Cytometry Staining Protocol

Other Formats

PE anti-human/mouse Granzyme B Recombinant Antibody, FITC anti-human/mouse Granzyme B Recombinant Antibody, APC anti-human/mouse Granzyme B Recombinant Antibody, PE/Cyanine7 anti-human/mouse Granzyme B Recombinant Antibody, Brilliant Violet 421™ anti-human/mouse Granzyme B Recombinant Antibody, PerCP/Cyanine5.5 anti-human/mouse Granzyme B Recombinant Antibody, Purified anti-human/mouse Granzyme B Recombinant Antibody, PerCP anti-human/mouse Granzyme B Recombinant Antibody, APC/Fire™ 750 anti-human/mouse Granzyme B Recombinant Antibody, Pacific Blue™ anti-human/mouse Granzyme B Recombinant Antibody, Alexa Fluor® 647 anti-human/mouse Granzyme B Recombinant Antibody, Alexa Fluor® 488 anti-human/mouse Granzyme B Recombinant Antibody, Alexa Fluor® 700 anti-human/mouse Granzyme B Recombinant Antibody, PE/Dazzle™ 594 anti-human/mouse Granzyme B Recombinant Antibody, TotalSeq™-B1116 anti-human/mouse Granzyme B Recombinant Antibody, Brilliant Violet 510™ anti-human/mouse Granzyme B Recombinant Antibody, Brilliant Violet 605™ anti-human/mouse Granzyme B Recombinant Antibody, Brilliant Violet 650™ anti-human/mouse Granzyme B Recombinant Antibody, Brilliant Violet 785™ anti-human/mouse Granzyme B Recombinant Antibody, Brilliant Violet 750™ anti-human/mouse Granzyme B Recombinant Antibody, Spark UV™ 387 anti-human/mouse Granzyme B Recombinant Antibody, TotalSeq™-C1116 anti-human/mouse Granzyme B Recombinant Antibody

Product Data



Human peripheral blood mononuclear cells were surface stained with anti-human CD8a (clone RPA-T8) FITC. Cells were then fixed and permeabilized with Cyto-Fast™ Fix/Perm Buffer Set (Cat. No. 426803) and intracellularly stained with anti-human/mouse Granzyme B recombinant (clone QA18A28) Brilliant Violet 605™ (left) or rat IgG1, κ Brilliant Violet 605™ isotype control (right).

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