FITC anti-human/mouse Granzyme B Antibody

Catalog# / Size	515403 / 25 tests
Clone	GB11
Other Names	Granzyme-2, serine protease B, CCP1, Asp-ase, CTLA-1
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

Reactivity	Human, Mouse, **Cross-Reactivity:** Rat
Antibody Type	Monoclonal
Host Species	Mouse
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).
Preparation	The antibody was purified by affinity chromatography, and conjugated with FITC under optimal conditions.
Concentration	Lot-specific (please contact technical support for concentration and total µg amount, or use our Lookup tool if you have a lot number.)
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)

Application References

(PubMed link indicates BioLegend citation)

1. Wever PC, et al. 1998. Immunology. 93:383
2. Arens R, et al. 2004. J. Exp. Med. 199:1595
3. Lima M, et al. 2003. Am. J. Pathol. 163:763
4. Wiede F, et al. 2014. J Autoimmun. 53:105. PubMed
5. Baker GF, et al. 2014. Cancer Res. 74:5079. PubMed
6. Nacer A, et al. 2014. PLoS Pathog. 10:1004528. PubMed
7. Sharma SK, et al. 2015. J Immunol. 194:5529. PubMed

Product Citations

1. Kmieciak M, et al. 2011. J Immunol. 187:708. PubMed
2. Wiede F, et al. 2014. J Autoimmun. 53:105. PubMed
3. Baker G, et al. 2014. Cancer Res. 74:5079. PubMed
4. Sharma S, et al. 2015. J Immunol. 194:5529. PubMed
5. Fujigaki J, et al. 2015. PLoS One. 10: 0132521. PubMed
6. Leeansyah E, et al. 2015. PLoS Pathog. 11: 1005072. PubMed
7. Durand J, et al. 2015. J Immunol. 195: 5035 - 5044. PubMed
8. Bastiaens G, et al. 2016. Am J Trop Med Hyg. 94: 663 - 673. PubMed
9. Donnarumma T, et al. 2016. Cell Rep. 17:1571-1583. PubMed
10. Prado-Garcia H, et al. 2017. Cancer Immunol Immunother. 10.1007/s00262-017-1979-x. PubMed
11. Jeng MY, et al. 2018. J Exp Med. 215:51. PubMed
12. Zhang J, et al. 2018. Nature. 553:91. PubMed

RRID	AB_2114575 (BioLegend Cat. No. 515403)

Antigen Details

Structure	32 kD serine protease
Distribution	Cytotoxic T-cells and NK cells, low on granulocytes, B cells and activated dendritic cells
Function	Induction of cell death and apoptosis
Ligand/Receptor	Mannose-6-phosphate receptor
Cell Type	T cells, NK cells, B cells, Dendritic cells
Biology Area	Cell Biology, Immunology, Innate Immunity, Neuroscience
Molecular Family	Proteases, Enzymes and Regulators
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 171528

Related Protocols

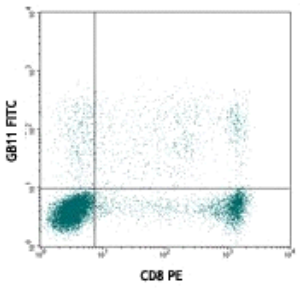
Intracellular Cytokine Staining Protocol - Video

Intracellular Flow Cytometry Staining Protocol

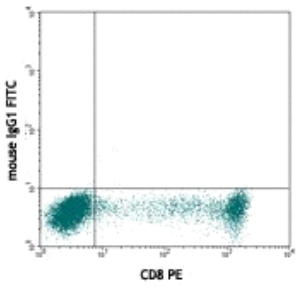
Other Formats

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

Product Data



Human peripheral blood lymphocytes surface stained with CD8 PE, then intracellular 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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