

PE/Cyanine7 anti-mouse TIGIT (Vstm3) Antibody

Catalog# / Size	142107 / 25 µg 142108 / 100 µg
Clone	1G9
Regulatory Status	RUO
Other Names	VSIG9
Isotype	Mouse IgG1, κ
Description	T cell immunoreceptor with Ig and ITIM domains (TIGIT), also known as V-set and transmembrane domain-containing protein 3 (Vstm3), is a 26 kD, type I transmembrane protein and member of the CD28 family. TIGIT is expressed on activated T cells, follicular T helper, memory, and regulatory T cells as well as on NK cells. Its binding partners include CD155 (PVR) and CD112 (PVRL2). TIGIT is a negative regulator of NK and T cell activation. Engagement of TIGIT by dendritic cells results in their differentiation into a tolerogenic phenotype, with an increased secretion of IL-10 and a diminished production of IL-12. Mice deficient for TIGIT are more susceptible to autoimmune disease.

Product Details

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Mouse
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
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	FC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis . For flow cytometric staining, the suggested use of this reagent is ≤0.25 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
Additional Product Notes	BioLegend is in the process of converting the name PE/Cy7 to PE/Cyanine7. The dye molecule remains the same, so you should expect the same quality and performance from our PE/Cyanine7 products. Please contact Technical Service if you have any questions.
Application References	1. Joller N, <i>et al.</i> 2010. <i>J. Immunol.</i> 186:1338.
(PubMed link indicates BioLegend citation)	
Product Citations	1. Bertrand F, <i>et al.</i> 2017. <i>Nat Commun.</i> 8:2256. PubMed 2. Lin C, <i>et al.</i> 2020. <i>Cancer Immunol Res.</i> 632:8. PubMed 3. Weulersse M, <i>et al.</i> 2020. <i>Immunity.</i> 53(4):824-839.e10. PubMed 4. Zhao H, <i>et al.</i> 2021. <i>Int J Nanomedicine.</i> 16:4913. PubMed 5. De Ponte Conti B, <i>et al.</i> 2021. <i>Elife.</i> 10:.. PubMed 6. Tian M, <i>et al.</i> 2021. <i>Elife.</i> 10:.. PubMed 7. Xiao S, <i>et al.</i> 2020. <i>Cell Reports.</i> 32(2):107892. PubMed 8. Zhao H, <i>et al.</i> 2022. <i>Int J Biol Sci.</i> 18:154. PubMed 9. Barsoumian HB, <i>et al.</i> 2022. <i>Cancers (Basel).</i> 14:.. PubMed 10. Srivastava S, <i>et al.</i> 2020. <i>Cancer Cell.</i> 39(2):193-208.e10. PubMed
RRID	AB_2565648 (BioLegend Cat. No. 142107) AB_2565649 (BioLegend Cat. No. 142108)

Antigen Details

Structure	Type I transmembrane protein, 26 kD, member of the CD28 family. Contains 1 Ig-like domain and 1 cytoplasmic ITIM motif.
Distribution	Activated T cells, follicular T helper cells, NK, memory T cells, Tregs.
Function	Negative regulator of T cell activation and proliferation. Induction of tolerogenic dendritic cells.
Ligand/Receptor	CD155 (PVR) and CD112 (PVRL2).
Cell Type	Dendritic cells, NK cells, T cells, Tregs
Biology Area	Immunology, Inhibitory Molecules
Molecular Family	Adhesion Molecules, Immune Checkpoint Receptors
Antigen References	1. Levin SD, <i>et al.</i> 2011. <i>Eur. J. Immunol.</i> 41:902. 2. Yu X, <i>et al.</i> 2009. <i>Nat. Immunol.</i> 10:48. 3. Stanietsky N, <i>et al.</i> 2009. <i>P. Natl. Acad. Sci. USA</i> 106:17858.
Gene ID	100043314

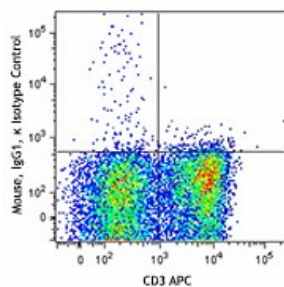
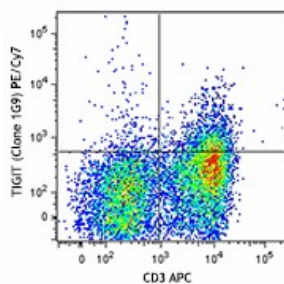
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

Purified anti-mouse TIGIT (Vstm3), PE anti-mouse TIGIT (Vstm3), APC anti-mouse TIGIT (Vstm3), PE/Cyanine7 anti-mouse TIGIT (Vstm3), PE/Dazzle™ 594 anti-mouse TIGIT (Vstm3), Biotin anti-mouse TIGIT (Vstm3), Brilliant Violet 421™ anti-mouse TIGIT (Vstm3), TotalSeq™-A0848 anti-mouse TIGIT (Vstm3), TotalSeq™-B0848 anti-mouse TIGIT (Vstm3), TotalSeq™-C0848 anti-mouse TIGIT (Vstm3)

Product Data



Con-A stimulated C57BL/6 mouse splenocytes (three days) were stained with CD3 APC and TIGIT (clone 1G9) APC (top) or mouse IgG1, κ APC isotype control (bottom).

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