

PE anti-human CD366 (Tim-3) Antibody

Catalog# / Size	345005 / 25 tests 345006 / 100 tests
Clone	F38-2E2
Regulatory Status	RUO
Workshop	HCDM listed
Other Names	T cell immunoglobulin and mucin domain containing protein 3, hepatitis virus cellular receptor 2, CD366
Isotype	Mouse IgG1, κ
Description	CD366 (Tim-3) is a transmembrane protein also known as T cell immunoglobulin and mucin domain containing protein-3. Tim-3 is expressed at high levels on activated T cells (preferentially on Th1 cells, monocytes/macrophages, and dendritic cells). Tim-3 has also been shown to exist as a soluble protein. Cells expressing Tim-3 are present at high levels in the CNS of animals at the onset of experimental autoimmune encephalomyelitis (EAE), a disease mediated by lymphocytes secreting Th1-like cytokines. Tim-3 has been proposed to inhibit Th1-mediated immune responses and promote immunological tolerance.

Product Details

Verified Reactivity	Human
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Human Tim-3 fusion protein
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	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 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)
Application Notes	Additional reported applications (for relevant formats of this clone) include: costimulation ¹ (clone 2E2 has been shown to enhance T-cell receptor mediated activation and cytokine secretion) and blocking ^{2,3} .
Application References	1. Hastings WD, <i>et al.</i> 2009. <i>Eur. J. Immunol.</i> 39:2492. (Costim) 2. Jones RB, <i>et al.</i> 2008. <i>J. Exp. Med.</i> 205:2763. (Block) 3. Klibi J, <i>et al.</i> 2009. <i>Blood</i> 113:1957. (FC, Block)
(PubMed link indicates BioLegend citation)	
Product Citations	1. Jung IY, <i>et al.</i> 2022. <i>Sci Transl Med.</i> 14:eabn7336. PubMed 2. Fang L, <i>et al.</i> 2013. <i>Neuro Oncology.</i> 15:1479. PubMed 3. Roberts A, <i>et al.</i> 2021. <i>Sci Rep.</i> 11:4030. PubMed 4. Yang H, <i>et al.</i> 2019. <i>Mol Metab.</i> 23:24. PubMed

5. Poonia B, Pauza C 2014. PLoS One. 9:88884. [PubMed](#)
6. Wang H, *et al.* 2022. Front Immunol. 13:852436. [PubMed](#)
7. Ho T, *et al.* 2016. Blood. 128: 1671 - 1678. [PubMed](#)
8. Sun L, *et al.* 2020. J Diabetes Res. 2020:2583257. [PubMed](#)
9. de Boer B *et al.* 2018. Cancer cell. 34(4):674-689 . [PubMed](#)
10. Wei F, *et al.* 2013. Proc Natl Acad Sci U S A. 110:2480. [PubMed](#)
11. Wang S, *et al.* 2021. Exp Ther Med. 21:37. [PubMed](#)
12. Su W, *et al.* 2022. Front Immunol. 13:952338. [PubMed](#)
13. Cai D, *et al.* 2021. Front Mol Biosci. 8:686803. [PubMed](#)
14. Ping Y, *et al.* 2020. Front Cell Dev Biol. 0.890972222. [PubMed](#)
15. Andersch L, *et al.* 2019. BMC Cancer. 19:895. [PubMed](#)
16. Srivastava S, *et al.* 2019. Cancer Cell. 35:489. [PubMed](#)
17. Zhang Y, *et al.* 2012. J Leukoc Biol. 91:189. [PubMed](#)
18. Houtsma R, *et al.* 2021. STAR Protoc. 2:100864. [PubMed](#)
19. Ho JY, *et al.* 2021. Mol Ther Methods Clin Dev. 21:237. [PubMed](#)
20. Bhattacharya P, *et al.* 2020. Elife. 9:00. [PubMed](#)
21. Fromentin R, *et al.* 2016. PLoS Pathog. 12: 1005761. [PubMed](#)
22. Jin C, *et al.* 2016. EMBO Mol Med. 8: 702 - 711. [PubMed](#)
23. Barresi V, *et al.* 2020. J Clin Med. 9:00. [PubMed](#)
24. Gorris MAJ, *et al.* 2018. J Immunol. 200:347. [PubMed](#)
25. Srivastava S, *et al.* 2020. Cancer Cell. 39(2):193-208.e10. [PubMed](#)
26. Lake CM, *et al.* 2021. Cell Death Dis. 12:400. [PubMed](#)
27. Finney OC, *et al.* 2019. J Clin Invest. 130:. [PubMed](#)

RRID [AB_1877236](#) (BioLegend Cat. No. 345005)
[AB_2116576](#) (BioLegend Cat. No. 345006)

Antigen Details

Structure	Transmembrane protein containing immunoglobulin domain and mucin-like domain; can exist as a soluble form lacking mucin and transmembrane domains
Distribution	Activated T cells, preferentially on Th1 cells, monocytes, dendritic cells
Function	Plays a role in regulating macrophage activation, T cell apoptosis and immune tolerance
Ligand/Receptor	Galectin-9
Cell Type	Dendritic cells, Monocytes, T cells, Th1, Tregs
Biology Area	Immunology, Inhibitory Molecules
Molecular Family	CD Molecules, Immune Checkpoint Receptors
Antigen References	<ol style="list-style-type: none"> 1. Hafler DA and Kuchroo V. 2008. <i>J. Exp. Med.</i> 205:2699. 2. Zhu C, <i>et al.</i> 2005. <i>Nat. Immunol.</i> 6:1245. 3. Wang F, <i>et al.</i> 2009. <i>Immunobiology</i> 214:342.
Gene ID	84868

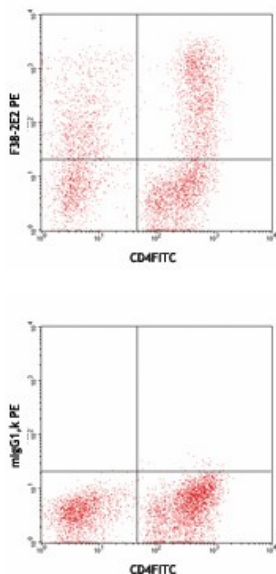
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

Purified anti-human CD366 (Tim-3), PE anti-human CD366 (Tim-3), Brilliant Violet 421™ anti-human CD366 (Tim-3), Ultra-LEAF™ Purified anti-human CD366 (Tim-3), APC anti-human CD366 (Tim-3), PE/Cyanine7 anti-human CD366 (Tim-3), PerCP/Cyanine5.5 anti-human CD366 (Tim-3), Brilliant Violet 605™ anti-human CD366 (Tim-3), FITC anti-human CD366 (Tim-3), Purified anti-human CD366 (Tim-3) (Maxpar® Ready), Brilliant Violet 711™ anti-human CD366 (Tim-3), APC/Cyanine7 anti-human CD366 (Tim-3), Brilliant Violet 785™ anti-human CD366 (Tim-3), Brilliant Violet 650™ anti-human CD366 (Tim-3), Brilliant Violet 510™ anti-human CD366 (Tim-3), PE/Dazzle™ 594 anti-human CD366 (Tim-3), GolnVivo™ Purified anti-human CD366 (Tim-3), APC/Fire™ 750 anti-human CD366 (Tim-3), Pacific Blue™ anti-human CD366 (Tim-3), Biotin anti-human CD366 (Tim-3), TotalSeq™-A0169 anti-human CD366 (Tim-3), TotalSeq™-C0169 anti-human CD366 (Tim-3), PE/Cyanine5 anti-human CD366 (Tim-3), TotalSeq™-B0169 anti-human CD366 (Tim-3), Brilliant Violet 750™ anti-human CD366 (Tim-3) Antibody, TotalSeq™-D0169 anti-human CD366 (Tim-3), PE/Fire™ 810 anti-human CD366 (Tim-3), PE/Fire™ 640 anti-human CD366 (Tim-3)

Product Data



Th1-polarized human peripheral blood mononuclear cells were stained with CD4 FITC and anti-human CD366 (Tim-3, clone F38-2E2) PE (top) or mouse IgG1, κ PE (bottom).

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