

PE anti-mouse Tim-4 Antibody

Catalog# / Size	130005 / 25 µg 130006 / 100 µg
Clone	RMT4-54
Regulatory Status	RUO
Other Names	T cell immunoglobulin and mucin domain containing protein-4
Isotype	Rat IgG2a, κ
Description	Tim-4 is a transmembrane protein known as T cell immunoglobulin and mucin domain containing protein-4. It is expressed on antigen-presenting cells and not on T cells. Tim-4 binds to Tim-1 to promote T cell proliferation by enhancing cell division and reducing apoptosis. Tim-4 bind to phosphatidylserine through its FG-CC' binding cleft in the N-terminal IgV domain to facilitate the clearance of apoptotic cells or bodies.

Product Details

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	Mouse TIM4-Ig fusion protein
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography, and conjugated with PE under optimal conditions.
Concentration	0.2 mg/ml
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)
Application Notes	Additional reported applications (for the relevant formats of this clone) include: <i>in vivo</i> induction of auto-antibody production ¹ and blockade of dendritic cell Tim-4 ² .
Application References	1. Nakayama M, <i>et al.</i> 2009. <i>Blood</i> . 113:3821. (FA) 2. Yeung MY, <i>et al.</i> 2013. <i>J. Immunol.</i> 191:4447. (Block)
(PubMed link indicates BioLegend citation)	
Product Citations	1. Sierra F, <i>et al.</i> 2017. <i>Immunity</i> . 47:374. PubMed 2. Sakai M, <i>et al.</i> 2020. <i>Immunity</i> . 51(4):655-670. PubMed 3. Izquierdo-Useros N, <i>et al.</i> 2014. <i>J Immunol</i> . 192:4852-4858. PubMed 4. Omori S, <i>et al.</i> 2021. <i>Cell Reports</i> . 34(6):108734. PubMed 5. Aktories P, <i>et al.</i> 2022. <i>Cell Rep Methods</i> . 2:100260. PubMed 6. Sun X, <i>et al.</i> 2020. <i>Cell Metabolism</i> . 31(1):189-206.e8.. PubMed
RRID	AB_1227807 (BioLegend Cat. No. 130005) AB_2201843 (BioLegend Cat. No. 130006)

Antigen Details

Structure	Transmembrane protein containing immunoglobulin domain and mucin-like domain
Distribution	Unlike the other Tims, Tim-4 is only expressed by antigen-presenting cells, but not by T cells.
Function	Tim-4 is expressed on antigen-presenting cells. It provides co-stimulation to promote T cell proliferation and survival and has a possible role in clearance of apoptotic cells by binding phosphatidylserine.
Interaction	Phosphatidylserine is the ligand of Tim-4 and Tim-4 is a ligand of Tim-1.
Ligand/Receptor	Phosphatidylserine, TIM1
Cell Type	Antigen-presenting cells
Biology Area	Immunology
Antigen References	<ol style="list-style-type: none">1. Kuchroo VK, <i>et al.</i> 2008. <i>Nat. Rev. Immunol.</i> 8:5772. Miyanishi M, <i>et al.</i> 2007. <i>Nature</i> 450:4353. Rodriguez-Manzanet R, <i>et al.</i> 2008. <i>J. Immunol.</i> 180:4706
Gene ID	276891

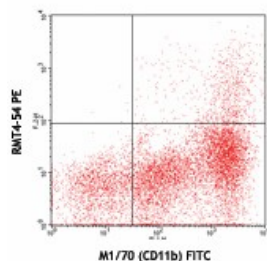
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

Purified anti-mouse Tim-4, PE anti-mouse Tim-4, Alexa Fluor® 647 anti-mouse Tim-4, PE/Cyanine7 anti-mouse Tim-4, TotalSeq™-A0567 anti-mouse Tim-4, Ultra-LEAF™ Purified anti-mouse Tim-4, PerCP/Cyanine5.5 anti-mouse Tim-4, TotalSeq™-C0567 anti-mouse Tim-4, TotalSeq™-B0567 anti-mouse Tim-4, APC anti-mouse Tim-4

Product Data



BALB/c peritoneal macrophages stained with RMT4-54 PE and M1/70 (CD11b) FITC

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