

TotalSeq™-A0567 anti-mouse Tim-4 Antibody

Catalog# / Size	130011 / 10 µg
Clone	RMT4-54
Regulatory Status	RUO
Other Names	T cell immunoglobulin and mucin domain containing protein-4
Isotype	Rat IgG2a, κ
Barcode Sequence	TGCTGGAGGGTATTC
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 and 1 mM EDTA.
Preparation	The antibody was purified by chromatography and conjugated with TotalSeq™-A oligomer under optimal conditions.
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C. Do not freeze.
Application	PG - Quality tested
Recommended Usage	<p>Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis and the oligomer sequence is confirmed by sequencing. TotalSeq™-A antibodies are compatible with 10x Genomics Single Cell Gene Expression Solutions.</p> <p>To maximize performance, it is strongly recommended that the reagent be titrated for each application, and that you centrifuge the antibody dilution before adding to the cells at 14,000xg at 2 - 8°C for 10 minutes. Carefully pipette out the liquid avoiding the bottom of the tube and add to the cell suspension. For Proteogenomics analysis, the suggested starting amount of this reagent for titration is ≤ 1.0 µg per million cells in 100 µL volume. Refer to the corresponding TotalSeq™ protocol for specific staining instructions.</p> <p>Buyer is solely responsible for determining whether Buyer has all intellectual property rights that are necessary for Buyer's intended uses of the BioLegend TotalSeq™ products. For example, for any technology platform Buyer uses with TotalSeq™, it is Buyer's sole responsibility to determine whether it has all necessary third party intellectual property rights to use that platform and TotalSeq™ with that platform.</p>
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 .
Additional Product Notes	<p>TotalSeq™ reagents are designed to profile protein levels at a single cell level following an optimized protocol similar to the CITE-seq workflow. A compatible single cell device (e.g. 10x Genomics Chromium System and Reagents) and sequencer (e.g. Illumina analyzers) are required. Please contact technical support for more information, or visit biolegend.com/totalseq.</p> <p>The barcode flanking sequences are CCTTGGCACCCGAGAATTCCA (PCR handle), and BAAAAAAAAAAAAAAAAAAAAAAAAAAAAA*A*A (capture sequence). B represents either C, G, or T, and * indicates a phosphorothioated bond, to prevent nuclease degradation.</p>

View more applications data for this product in our [Scientific Poster Library](#).

Application References

(PubMed link indicates BioLegend citation)

1. Nakayama M, *et al.* 2009. *Blood*. 113:3821. (FA)
2. Yeung MY, *et al.* 2013. *J. Immunol.* 191:4447. (Block)

RRID AB_2783084 (BioLegend Cat. No. 130011)

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

[TotalSeq™-A Antibodies and Cell Hashing with 10x Single Cell 3' Reagent Kit v3 3.1 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

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