

## TotalSeq™-A0388 anti-mouse CD152 Antibody

<b>Catalog# / Size</b>	106325 / 10 µg
<b>Clone</b>	UC10-4B9
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	Cytotoxic T Lymphocyte-Associated Antigen-4 (CTLA-4), Ly-56
<b>Isotype</b>	Armenian Hamster IgG
<b>Barcode Sequence</b>	AGTGTTTGCCTGGT
<b>Description</b>	CD152, also known as CTLA-4 or Ly-56, is a 33 kD member of the immunoglobulin superfamily. It is expressed on activated T and B lymphocytes. CD152 is similar to CD28 in amino acid sequence, structure, and genomic organization and these two receptors share common B7 family counter-receptors (B7-1, B7-2). Whereas CD28 delivers a costimulatory signal in T cell activation, CTLA-4 negatively regulates cell-mediated immune responses. CD152 is thought to play a role in the induction and maintenance of immunological tolerance as well as the development of protective immunity and thymocyte regulation.

### Product Details

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<b>Verified Reactivity</b>	Mouse
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Armenian Hamster
<b>Immunogen</b>	Mouse CTLA-4-mouse IgG2a fusion protein
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 1 mM EDTA
<b>Preparation</b>	The antibody was purified by chromatography and conjugated with TotalSeq™-A oligomer under optimal conditions.
<b>Concentration</b>	0.5 mg/mL
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">PG - Quality tested</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> and the oligomer sequence is confirmed by sequencing. TotalSeq™-A antibodies are compatible with 10x Genomics Single Cell Gene Expression <a href="#">Solutions</a> .

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.

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.

<b>Application Notes</b>	The UC10-4B9 antibody can enhance T cell co-stimulation by blocking CTLA-4 interactions with the B7 co-receptors, favoring CD28 interactions. Additional reported applications (for the relevant formats) include: immunoprecipitation <sup>1</sup> , <i>in vitro</i> stimulation, <i>in vitro</i> and <i>in vivo</i> blocking <sup>1-4</sup> of ligand binding, and as ELISA capture antibody <sup>5</sup> . To reduce non-specific binding to cells bearing Fc-receptors, pre-incubation of cells with anti-mouse CD16/CD32, clone 93 (Cat. No. 101301/101302), is recommended prior to immunofluorescent staining. For most successful immunofluorescent staining results, it may be important to maximize signal over background by using a relatively bright fluorochrome-antibody conjugate (Cat. No. 106306) or by using a high sensitivity, three-layer
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staining technique (e.g., including a biotinylated anti-Armenian hamster IgG (Cat. No. 405501) second step, followed by SA<sub>v</sub>-PE (Cat. No. 405204)). The Ultra LEAF™ purified antibody (Endotoxin < 0.01 EU/μg, Azide-Free, 0.2 μm filtered) is recommended for functional assays (Cat. No. 106327).

#### Additional Product Notes

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](#).

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.

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

#### Application References

(PubMed link indicates BioLegend citation)

1. Walunas TL, *et al.* 1994. *Immunity* 1:405. (Block, IP)
2. Cilio CM, *et al.* 1998. *J. Exp. Med.* 188:1239. (Block)
3. Issazadeh S, *et al.* 1999. *J. Immunol.* 162:761. (Block)
4. McCoy K, *et al.* 1997. *J. Exp. Med.* 186:183. (Block)
5. Hsu HC, *et al.* 2007. *J. Immunol.* 178:5357. (ELISA Capture)
6. Sugita S, *et al.* 2010. *Invest. Ophthalmol. Vis. Sci.* 51:5783. [PubMed](#)

#### RRID

AB\_2876417 (BioLegend Cat. No. 106325)

## Antigen Details

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<b>Structure</b>	Ig superfamily, 33 kD
<b>Distribution</b>	Activated T cells and B cells
<b>Function</b>	Negative regulator of T cell activation
<b>Ligand/Receptor</b>	CD80 (B7-1), CD86 (B7-2)
<b>Cell Type</b>	B cells, T cells, Tregs
<b>Biology Area</b>	Immunology
<b>Molecular Family</b>	CD Molecules, Immune Checkpoint Receptors
<b>Antigen References</b>	<ol style="list-style-type: none"><li>1. Barclay A, <i>et al.</i> 1997. <i>The Leukocyte Antigen FactsBook</i> Academic Press.</li><li>2. Allison JP, <i>et al.</i> 1995. <i>Science</i> 270:932.</li><li>3. Waterhouse P, <i>et al.</i> 1995. <i>Science</i> 270:985.</li><li>4. Linsley PS, <i>et al.</i> 1991. <i>J. Exp. Med.</i> 174:561.</li></ol>
<b>Gene ID</b>	<a href="#">12477</a>

## Related Protocols

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[TotalSeq™-A Antibodies and Cell Hashing with 10x Single Cell 3' Reagent Kit v3 3.1 Protocol](#)

## Other Formats

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Biotin anti-mouse CD152, PE anti-mouse CD152, Purified anti-mouse CD152, APC anti-mouse CD152, Brilliant Violet 421™ anti-mouse CD152, PE/Cyanine7 anti-mouse CD152, PerCP/Cyanine5.5 anti-mouse CD152, PE/Dazzle™ 594 anti-mouse CD152, Brilliant Violet 605™ anti-mouse CD152, TotalSeq™-A0388 anti-mouse CD152, Ultra-LEAF™ Purified anti-mouse CD152, TotalSeq™-C0388 anti-mouse CD152, TotalSeq™-B0388 anti-mouse CD152

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