

## TotalSeq™-A0849 anti-mouse CD80 Antibody

<b>Catalog# / Size</b>	104745 / 10 µg
<b>Clone</b>	16-10A1
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	B7-1, B7, Ly-53
<b>Isotype</b>	Armenian Hamster IgG
<b>Barcode Sequence</b>	GACCCGGTGTCATT
<b>Description</b>	CD80 is a 60 kD highly glycosylated protein. It is a member of the Ig superfamily and is also known as B7-1, B7, and Ly-53. CD80 is constitutively expressed on dendritic cells and monocytes/macrophages, and inducibly expressed on activated B and T cells. The ligation of CD28 on T cells with CD80 and CD86 (B7-2) on antigen presenting cells (such as dendritic cells, macrophages, and B cells) elicits co-stimulation of T cells resulting in enhanced cell activation, proliferation, and cytokine production. CD80 appears to be expressed later in the immune response than CD86. CD80 can also bind to CD152, also known as CTLA-4, to deliver an inhibitory signal to T cells.

### Product Details

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<b>Verified Reactivity</b>	Mouse
<b>Reported Reactivity</b>	Dog
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Armenian Hamster
<b>Immunogen</b>	CHO cell line transfected with mouse B7 (CD80)
<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>	Additional reported applications (for the relevant formats) include: immunoprecipitation <sup>2</sup> , <i>in vitro</i> and <i>in vivo</i> blocking of CTLA-4 Ig to CD80 by blocking costimulation of T cells by activated B cells <sup>2-4</sup> , and immunohistochemical staining of acetone-fixed frozen sections <sup>1,4</sup> . The Ultra-LEAF™ purified antibody (Endotoxin < 0.01 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. Nos. 104747-104752).
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**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](http://biolegend.com/totalseq).

The barcode flanking sequences are CCTTGGCACCCGAGAATTCCA (PCR handle), and BAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA\*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. Harlan DM, *et al.* 1994. *P. Natl. Acad. Sci. USA* 91:3137. (IHC)
2. Razi-Wolf Z, *et al.* 1992. *P. Natl. Acad. Sci. USA* 89:4210. (Block, IP)
3. Hathcock KS, *et al.* 1994. *J. Exp. Med.* 180:631. (Block)
4. Herold KC, *et al.* 1997. *J. Immunol.* 158:984. (Block, IHC)
5. Ma XT, *et al.* 2006. *Cancer Res.* 66:1169.
6. Andoniou CE, *et al.* 2005. *Nature Immunology* 6:1011. (FC)
7. Lawson BR, *et al.* 2007. *J. Immunol.* 178:5366.
8. Turnquist HR, *et al.* 2007. *J. Immunol.* 178:7018.
9. Misra RS, *et al.* 2010. *J. Exp Med.* 207:1775. [PubMed](#)
10. del Rio ML, *et al.* 2011. *Transpl. Int.* 24:501. (FC) [PubMed](#)
11. Philipsen L, *et al.* 2013. *Mol Cell Proteomics.* 12:2551. [PubMed](#)

## Product Citations

1. Guilliams M, *et al.* 2022. *Cell.* 185:379. [PubMed](#)

## RRID

AB\_2813935 (BioLegend Cat. No. 104745)

## Antigen Details

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<b>Structure</b>	Ig superfamily, 60 kD
<b>Distribution</b>	Macrophages, activated B cells and T cells, dendritic cells
<b>Function</b>	T cell costimulation
<b>Ligand/Receptor</b>	CD28 (stimulatory), CD152(CTLA4) (inhibitory)
<b>Cell Type</b>	B cells, Dendritic cells, Macrophages, T cells, Tregs
<b>Biology Area</b>	Cell Biology, Costimulatory Molecules, Immunology, Neuroscience, Neuroscience Cell Markers
<b>Molecular Family</b>	CD Molecules, Immune Checkpoint Receptors
<b>Antigen References</b>	<ol style="list-style-type: none"><li>1. Barclay AN, <i>et al.</i> 1997. <i>The Leukocyte Antigen FactsBook</i> Academic Press.</li><li>2. Linsley PS, <i>et al.</i> 1991. <i>J. Exp. Med.</i> 174:561.</li><li>3. Salomon B, <i>et al.</i> 2001. <i>Annu. Rev. Immunol.</i> 19:225.</li></ol>
<b>Gene ID</b>	<a href="#">12519</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 CD80, FITC anti-mouse CD80, PE anti-mouse CD80, Purified anti-mouse CD80, PE/Cyanine5 anti-mouse CD80, APC anti-mouse CD80, Alexa Fluor® 488 anti-mouse CD80, Alexa Fluor® 647 anti-mouse CD80, PerCP/Cyanine5.5 anti-mouse CD80, Pacific Blue™ anti-mouse CD80, Brilliant Violet 421™ anti-mouse CD80, Brilliant Violet 605™ anti-mouse CD80, Brilliant Violet 650™ anti-mouse CD80, PE/Cyanine7 anti-mouse CD80, Purified anti-mouse CD80 (Maxpar® Ready), PE/Dazzle™ 594 anti-mouse CD80, APC/Fire™ 750 anti-mouse CD80, Brilliant Violet 711™ anti-mouse CD80, Brilliant Violet 510™ anti-mouse CD80, TotalSeq™-A0849 anti-mouse CD80, TotalSeq™-C0849 anti-mouse CD80, Ultra-LEAF™ Purified anti-mouse CD80, Alexa Fluor® 594 anti-mouse CD80, TotalSeq™-B0849 anti-mouse CD80 Antibody, PE/Fire™ 640 anti-mouse CD80, Spark NIR™ 685 anti-mouse CD80

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