

## Alexa Fluor<sup>®</sup> 594 anti-mouse CD80 Antibody

<b>Catalog# / Size</b>	104753 / 25 µg 104754 / 100 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>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.
<b>Preparation</b>	The antibody was purified by affinity chromatography and conjugated with Alexa Fluor <sup>®</sup> 594 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, and protected from prolonged exposure to light. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">IHC-F - Quality tested</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by immunohistochemical staining on frozen tissue sections. For immunohistochemistry, a concentration range of 5.0 - 10 µg/mL is suggested. It is recommended that the reagent be titrated for optimal performance for each application.

\* Alexa Fluor<sup>®</sup> 594 has an excitation maximum of 590 nm, and a maximum emission of 617 nm.

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<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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#### 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](#)

**RRID** AB\_2832337 (BioLegend Cat. No. 104753)  
 AB\_2832338 (BioLegend Cat. No. 104754)

## Antigen Details

<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>

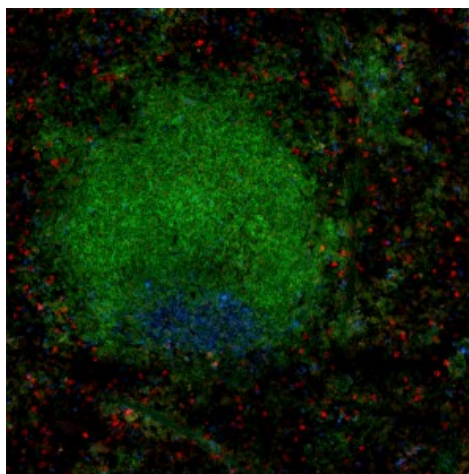
## Related Protocols

[Immunohistochemistry Protocol for Frozen Sections](#)

## Other Formats

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

## Product Data



BALB/c mouse was subcutaneous injected with a million of 4T1 (mouse breast cancer) cells on a fat pad. After a week, the spleen was harvested, embedded in OCT and frozen down. The frozen spleen was sectioned, fixed with 4% paraformaldehyde (PFA) for 10 minutes at room temperature and blocked with 5% FBS for 1 hour at room temperature. Then the section was stained with 5 µg/mL of CD3 (clone 17A2) Alexa Fluor® 647 (blue), CD80 (clone 16-10A1) Alexa Fluor® 594 (red) and B220 (clone RA3-6B2) Alexa Fluor® 488 (green) at 4°C overnight. The image was scanned with a 10X object and stitched with MetaMorph® software.

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