

## Alexa Fluor® 488 anti-mouse CD103 Antibody

<b>Catalog# / Size</b>	121407 / 25 µg 121408 / 100 µg
<b>Clone</b>	2E7
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	Integrin αEL chain, Integrin αE chain, αE integrin, ITGAE
<b>Isotype</b>	Armenian Hamster IgG
<b>Description</b>	CD103 is a type I transmembrane glycoprotein known as αE integrin or Integrin αE chain. It belongs to the integrin family and is primarily found on intestinal intraepithelial lymphocytes (IEL). CD103 is also expressed on a subpopulation of lamina propria T cells, epithelial dendritic cells, lamina propria-derived dendritic cells, and a small subset of peripheral lymphocytes. T regulatory cells express high level of CD103. The CD103 expression on lymphocytes can be induced upon activation and TGF-β stimulation. In association with integrin β7, CD103 is expressed as αE/β7 heterodimer. Mature CD103 protein can be cleaved into 2 chains, a 150 kD (C-terminal) chain and a 25 kD (N-terminal) chain, which remain linked by disulfide bonds. CD103 binds to E-cadherin and mediates homing of lymphocytes to the intestinal epithelium.

### 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 intestinal intraepithelial lymphocytes
<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® 488 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="#">FC - 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> . 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.  * Alexa Fluor® 488 has a maximum emission of 519 nm when it is excited at 488 nm.  Alexa Fluor® and Pacific Blue™ are trademarks of Life Technologies Corporation.  <a href="#">View full statement regarding label licenses</a>
<b>Excitation Laser</b>	Blue Laser (488 nm)
<b>Application Notes</b>	Additional reported applications (for the relevant formats) include: immunoprecipitation <sup>1</sup> , immunohistochemical staining <sup>1,7</sup> of acetone-fixed frozen sections, immunofluorescence <sup>2</sup> , and <i>in vitro</i> activation <sup>1</sup> .
<b>Application References</b>	<ol style="list-style-type: none"> <li>1. LeFrancois L, <i>et al.</i>, 1994. <i>Eur. J. Immunol.</i> 24:635. (FC, IHC, IP)</li> <li>2. Mysorekar IU, <i>et al.</i>, 2002. <i>J. Biol. Chem.</i> 277:37811. (FC, IF)</li> <li>3. Mikami N, <i>et al.</i>, 2011. <i>J. Immunol.</i> 186:6886. <a href="#">PubMed</a></li> <li>4. del Rio ML, <i>et al.</i>, 2011. <i>Transpl. Int.</i> 24:501. (FC) <a href="#">PubMed</a></li> <li>5. Quinn KM, <i>et al.</i>, 2013. <i>J. Immunol.</i> 191:5085. <a href="#">PubMed</a></li> </ol>
<b>(PubMed link indicates BioLegend citation)</b>	

- Verhagen J and Wraith DC. 2014. *J. Immunol. Methods*. S0022. (FC) [PubMed](#)
- Xiao B, et al. 2015. *PLoS One* 1:e0115333. (IHC)

#### Product Citations

- Ying W, et al. 2019. *Cell Metab.* 29:457. [PubMed](#)
- Chang T, et al. 2017. *PLoS Pathog.* 10.1371/journal.ppat.1006485. [PubMed](#)
- Misumi I et al. 2019. *Cell Rep.* 27(2):514-524 . [PubMed](#)
- Zhuang Z, et al. 2021. *J Exp Med.* 218:00:00. [PubMed](#)
- E-Lacerda RR, et al. 2020. *Clin Exp Allergy.* 256:50. [PubMed](#)
- Yang BH, et al. 2020. *Cell Reports.* 27(12):3629-3645.e6.. [PubMed](#)
- Mak'Anyengo R, et al. 2018. *JCI Insight.* 3:e96322. [PubMed](#)
- Rivera CA, et al. 2022. *Immunity.* 55:129. [PubMed](#)

#### RRID

AB\_535949 (BioLegend Cat. No. 121407)  
AB\_535950 (BioLegend Cat. No. 121408)

## Antigen Details

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<b>Structure</b>	Type I transmembrane glycoprotein, Integrin family, can be cleaved into 150 kD and 25 kD chains, associated with $\beta 7$ integrin
<b>Distribution</b>	Majority of intestinal intraepithelial lymphocytes (IEL), subpopulation of lamina propria T cells, epithelial dendritic cells, small subset of peripheral lymphocytes, Treg cells.
<b>Function</b>	Retention and activation of CD103 <sup>+</sup> lymphocytes in the intestinal epithelium, regulate tissue-specific T cell homing.
<b>Ligand/Receptor</b>	E-Cadherin
<b>Cell Type</b>	Dendritic cells, Lymphocytes, T cells, Tregs
<b>Biology Area</b>	Immunology
<b>Molecular Family</b>	Adhesion Molecules, CD Molecules
<b>Antigen References</b>	<ol style="list-style-type: none"><li>Kilshaw PJ and SJ. Murant. 1990. <i>Eur. J. Immunol.</i> 20:2201.</li><li>Karecla PI, et al. 1995. <i>Eur. J. Immunol.</i> 25:852.</li><li>LeFrancois L, et al. 1994. <i>Eur. J. Immunol.</i> 24:635.</li><li>Sung SS, et al. 2006. <i>J. Immunol.</i> 176:2161.</li><li>Johansson-Lindbom B, et al. 2005. <i>J. Exp. Med.</i> 202:1063.</li><li>Dujardin HC, et al. 2004. <i>Proc. Natl. Acad. Sci. USA.</i> 101:14473.</li></ol>
<b>Gene ID</b>	<a href="#">16407</a>

## Related Protocols

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[Cell Surface Flow Cytometry Staining Protocol](#)

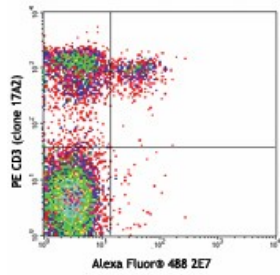
## Other Formats

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Purified anti-mouse CD103, Biotin anti-mouse CD103, PE anti-mouse CD103, Alexa Fluor® 488 anti-mouse CD103, Alexa Fluor® 647 anti-mouse CD103, Alexa Fluor® 594 anti-mouse CD103, Brilliant Violet 510™ anti-mouse CD103, APC anti-mouse CD103, PerCP/Cyanine5.5 anti-mouse CD103, Pacific Blue™ anti-mouse CD103, FITC anti-mouse CD103, Brilliant Violet 421™ anti-mouse CD103, PE/Cyanine7 anti-mouse CD103, APC/Cyanine7 anti-mouse CD103, PE/Dazzle™ 594 anti-mouse CD103, Brilliant Violet 605™ anti-mouse CD103, Brilliant Violet 711™ anti-mouse CD103, TotalSeq™-A0201 anti-mouse CD103, Brilliant Violet 785™ anti-mouse CD103, Alexa Fluor® 700 anti-mouse CD103, TotalSeq™-C0201 anti-mouse CD103, TotalSeq™-B0201 anti-mouse CD103, PE/Cyanine5 anti-mouse CD103

## Product Data

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C57BL/6 mouse splenocytes stained with PE CD3 (clone 17A2) and Alexa Fluor® 488 2E7

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