

## Biotin anti-mouse CD103 Antibody

<b>Catalog# / Size</b>	121403 / 50 µg 121404 / 200 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 biotin 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="#">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 ≤ 1.0 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.
<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> <li>6. Verhagen J and Wraith DC. 2014. <i>J. Immunol. Methods.</i> S0022. (FC) <a href="#">PubMed</a></li> <li>7. Xiao B, <i>et al.</i> 2015. <i>PLoS One</i> 1:e0115333. (IHC)</li> </ol>
<b>Product Citations</b>	<ol style="list-style-type: none"> <li>1. Kitano M, <i>et al.</i> 2016. <i>Proc Natl Acad Sci U S A.</i> 113: 1044 - 1049. <a href="#">PubMed</a></li> <li>2. Sasaki K, <i>et al.</i> 2019. <i>Nat Commun.</i> 10:3878. <a href="#">PubMed</a></li> <li>3. Murphy S, <i>et al.</i> 2014. <i>Am J Physiol Gastrointest Liver Physiol.</i> 307:871. <a href="#">PubMed</a></li> <li>4. Takano T, <i>et al.</i> 2020. <i>Front Immunol.</i> 11:1555. <a href="#">PubMed</a></li> <li>5. Pizzolla A, <i>et al.</i> 2016. <i>PLoS One.</i> 11: 0160407. <a href="#">PubMed</a></li> </ol>

**RRID** AB\_535946 (BioLegend Cat. No. 121403)  
AB\_535947 (BioLegend Cat. No. 121404)

## Antigen Details

<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>1. Kilshaw PJ and SJ. Murant. 1990. <i>Eur. J. Immunol.</i> 20:2201.</li><li>2. Karecla PI, et al. 1995. <i>Eur. J. Immunol.</i> 25:852.</li><li>3. LeFrancois L, et al. 1994. <i>Eur. J. Immunol.</i> 24:635.</li><li>4. Sung SS, et al. 2006. <i>J. Immunol.</i> 176:2161.</li><li>5. Johansson-Lindbom B, et al. 2005. <i>J. Exp. Med.</i> 202:1063.</li><li>6. Dujardin HC, et al. 2004. <i>Proc. Natl. Acad. Sci. USA.</i> 101:14473.</li></ol>
<b>Gene ID</b>	<a href="#">16407</a>

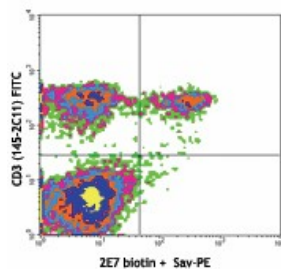
## Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

## Other Formats

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



C57BL/6 mouse splenocytes stained with CD3 (145-2C11) FITC and biotinylated 2E7, followed by Sav-PE

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