

## PerCP/Fire™ 780 anti-human CD103 (Integrin, αE) Antibody

<b>Catalog# / Size</b>	350255 / 25 tests 350256 / 100 tests
<b>Clone</b>	Ber-ACT8
<b>Regulatory Status</b>	RUO
<b>Workshop</b>	V A067
<b>Other Names</b>	Integrin alpha E (ITGAE), HML-1
<b>Isotype</b>	Mouse IgG1, κ
<b>Description</b>	CD103 is a type I transmembrane glycoprotein also known as αE integrin, integrin αEL chain, and human mucosal lymphocyte antigen 1. 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. Treg cells express high level of CD103. Hairy cell leukemia has also been shown to express CD103. The expression of CD103 on lymphocytes can be induced upon activation and TGF-β stimulation. In association with integrin β7, CD103 is expressed as an 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>	Human
<b>Reported Reactivity</b>	Cynomolgus
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Immunogen</b>	HTLV-1 induced human T cell line MAPS16
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
<b>Preparation</b>	The antibody was purified by affinity chromatography and conjugated with PerCP/Fire™ 780 under optimal conditions.
<b>Concentration</b>	Lot-specific (to obtain lot-specific concentration and expiration, please enter the lot number in our <a href="#">Certificate of Analysis</a> online tool.)
<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 5 µL per million cells in 100 µL staining volume or 5 µL per 100 µL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.  * PerCP/Fire 780 has a maximum excitation of 478 nm and a maximum emission of 780 nm.
<b>Excitation Laser</b>	Blue Laser (488 nm)
<b>Application Notes</b>	Additional reported applications (for the relevant formats) include: Western Blotting <sup>1</sup> , immunoprecipitation <sup>1</sup> , and immunohistochemical staining of frozen tissue sections <sup>1</sup> .
<b>Application References</b>	1. Kruschwitz M, <i>et al.</i> 1991. <i>J. Clin. Pathol.</i> 44:636. (WB, IP, IHC-F) 2. Yoshino N, <i>et al.</i> 2000. <i>Exp. Anim. (Tokyo)</i> 49:97. (FC)
<b>(PubMed link indicates BioLegend citation)</b>	

RRID AB\_3683372 (BioLegend Cat. No. 350255)  
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## 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; expressed on hairy cell leukemia
<b>Function</b>	Retention and activation of CD103 <sup>+</sup> lymphocytes in the intestinal epithelium, regulation of tissue-specific T cell homing
<b>Ligand/Receptor</b>	E-Cadherin
<b>Cell Sources</b>	Integrin $\beta 7$
<b>Cell Targets</b>	Integrin $\beta 7$
<b>Cell Type</b>	Dendritic cells, Lymphocytes, T cells, Tregs
<b>Biology Area</b>	Cell Biology, Immunology, Neuroscience, Synaptic Biology
<b>Molecular Family</b>	Adhesion Molecules, CD Molecules
<b>Antigen References</b>	<ol style="list-style-type: none"><li>1. Parker CM, <i>et al.</i> 1992. <i>P. Natl. Acad. Sci. USA</i> 89:1924.</li><li>2. Kruschwitz M, <i>et al.</i> 1991. <i>J. Clin. Pathol.</i> 44:636.</li><li>3. Schon MP, <i>et al.</i> 1999. <i>J. Immunol.</i> 162:6641.</li><li>4. Shaw SK, <i>et al.</i> 1994. <i>J. Biol. Chem.</i> 269:6016.</li></ol>
<b>Gene ID</b>	<a href="#">3682</a>

## Related Protocols

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- [Cell Surface Flow Cytometry Staining Protocol](#)

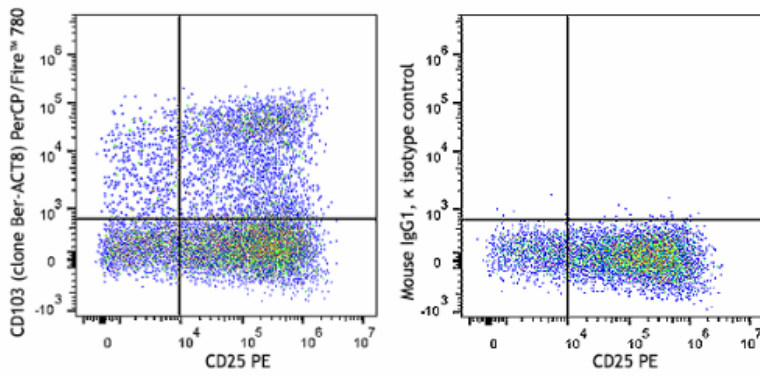
## Other Formats

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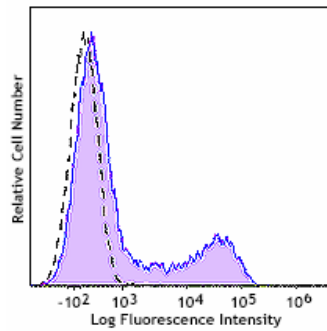
Purified anti-human CD103 (Integrin  $\alpha E$ ), FITC anti-human CD103 (Integrin  $\alpha E$ ), PE anti-human CD103 (Integrin  $\alpha E$ ), Alexa Fluor® 488 anti-human CD103 (Integrin  $\alpha E$ ), Alexa Fluor® 647 anti-human CD103 (Integrin  $\alpha E$ ), PE/Cyanine7 anti-human CD103 (Integrin  $\alpha E$ ), Brilliant Violet 421™ anti-human CD103 (Integrin  $\alpha E$ ), APC anti-human CD103 (Integrin  $\alpha E$ ), Brilliant Violet 605™ anti-human CD103 (Integrin  $\alpha E$ ), Biotin anti-human CD103 (Integrin  $\alpha E$ ), Brilliant Violet 711™ anti-human CD103 (Integrin  $\alpha E$ ), PE/Dazzle™ 594 anti-human CD103 (Integrin  $\alpha E$ ), PerCP/Cyanine5.5 anti-human CD103 (Integrin  $\alpha E$ ), Brilliant Violet 785™ anti-human CD103 (Integrin  $\alpha E$ ), APC/Cyanine7 anti-human CD103 (Integrin  $\alpha E$ ), TotalSeq™-A0145 anti-human CD103 (Integrin  $\alpha E$ ), TotalSeq™-C0145 anti-human CD103 (Integrin  $\alpha E$ ), TotalSeq™-B0145 anti-human CD103 (Integrin  $\alpha E$ ), APC/Fire™ 750 anti-human CD103 (Integrin  $\alpha E$ ), PE/Fire™ 700 anti-human CD103 (Integrin  $\alpha E$ ) Antibody, TotalSeq™-D0145 anti-human CD103 (Integrin  $\alpha E$ ), PE/Fire™ 640 anti-human CD103 (Integrin  $\alpha E$ ), PE anti-human CD103, FITC anti-human CD103, APC anti-human CD103, Spark YG™ 581 anti-human CD103 (Integrin  $\alpha E$ ), Spark NIR™ 685 anti-human CD103 (Integrin  $\alpha E$ ), Spark Blue™ 550 anti-human CD103 (Integrin  $\alpha E$ ), PE/Fire™ 810 anti-human CD103 (Integrin  $\alpha E$ ), GMP FITC anti-human CD103 (Integrin  $\alpha E$ ), GMP PE anti-human CD103 (Integrin  $\alpha E$ ), Spark Red™ 718 anti-human CD103 (Integrin  $\alpha E$ ) (Flexi-Fluor™), Spark Blue™ 574 anti-human CD103 (Integrin  $\alpha E$ ) (Flexi-Fluor™), PerCP/Fire™ 806 anti-human CD103 (Integrin,  $\alpha E$ ) Antibody, PerCP/Fire™ 780 anti-human CD103 (Integrin,  $\alpha E$ ), GMP APC anti-human CD103 (Integrin  $\alpha E$ ), StarBright UltraViolet 795 anti-human CD103 (Integrin  $\alpha E$ ), PE/Fire™ 744 anti-human CD103 (Integrin  $\alpha E$ ), Brilliant Violet 750™ anti-human CD103 (Integrin  $\alpha E$ )

## Product Data

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PHA-stimulated (3 day) human peripheral blood mononuclear cells were stained with anti-human CD25 (clone BC96) PE and anti-human CD103 (Integrin  $\alpha$ E) (clone Ber-ACT8) PerCP/Fire™ 780 (left) or mouse IgG1,  $\kappa$  PerCP/Fire™ 780 isotype control (right).



PHA-stimulated (3 days) human peripheral blood mononuclear cells were stained anti-human CD103 (Integrin  $\alpha$ E) (clone Ber-ACT8) PerCP/Fire™ 780 (filled histogram) or mouse IgG1,  $\kappa$  PerCP/Fire™ 780 isotype control (open histogram).

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