PerCP/Fire™ 806 anti-human CD103 (Integrin, αE) Antibody

Catalog# / Size	350253 / 25 tests 350254 / 100 tests
Clone	Ber-ACT8
Regulatory Status	RUO
Workshop	V A067
Other Names	Integrin alpha E (ITGAE), HML-1
Isotype	Mouse IgG1, κ
Description	CD103 is a type I transmembrane glycoprotein also known as αE integrin, integrin αIEL 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

Verified Reactivity	Human
Reported Reactivity	Cynomolgus
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	HTLV-1 induced human T cell line MAPS16
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
Preparation	The antibody was purified by affinity chromatography and conjugated with PerCP/Fire™ 806 under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration and expiration, please enter the lot number in our Certificate of Analysis online tool.)
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. **Do not freeze**.
Application	FC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. 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™ 806 has a maximum excitation of 478 nm and a maximum emission of 806 nm.
Excitation Laser	Blue Laser (488 nm)
Application Notes	Additional reported applications (for the relevant formats) include: Western Blotting[1], immunoprecipitation[1], and immunohistochemical staining of frozen tissue sections[1].
Application References **(PubMed link indicates BioLegend citation)**	1. Kruschwitz M, *et al.* 1991. *J. Clin. Pathol.* 44:636. (WB, IP, IHC-F) 2. Yoshino N, *et al.* 2000. *Exp. Anim. (Tokyo)* 49:97. (FC)

RRID	AB_3683371 (BioLegend Cat. No. 350253) AB_3683371 (BioLegend Cat. No. 350254)

Antigen Details

Structure	Type I transmembrane glycoprotein, integrin family; can be cleaved into 150 kD and 25 kD chains; associated with β7 integrin
Distribution	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
Function	Retention and activation of $CD103^+$ lymphocytes in the intestinal epithelium, regulation of tissue-specific T cell homing
Ligand/Receptor	E-Cadherin
Cell Sources	Integrin β7
Cell Targets	Integrin β7
Cell Type	Dendritic cells, Lymphocytes, T cells, Tregs
Biology Area	Cell Biology, Immunology, Neuroscience, Synaptic Biology
Molecular Family	Adhesion Molecules, CD Molecules
Antigen References	1. Parker CM, *et al.* 1992. *P. Natl. Acad. Sci. USA* 89:1924. 2. Kruschwitz M, *et al.* 1991. *J. Clin. Pathol.* 44:636. 3. Schon MP, *et al.* 1999. *J. Immunol.* 162:6641. 4. Shaw SK, *et al.* 1994. *J. Biol. Chem.* 269:6016.
Gene ID	3682

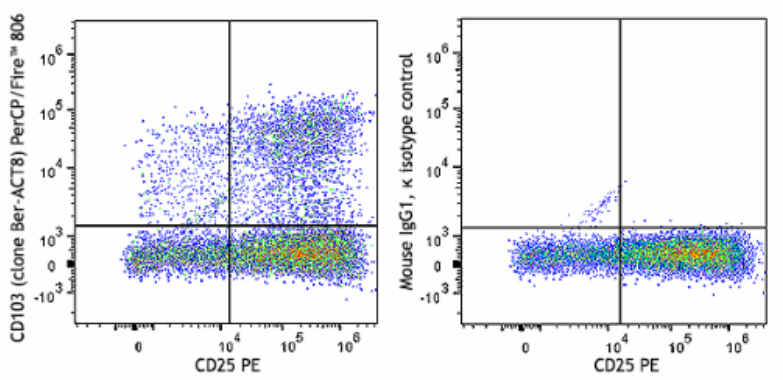
Related Protocols

- Cell Surface Flow Cytometry Staining Protocol

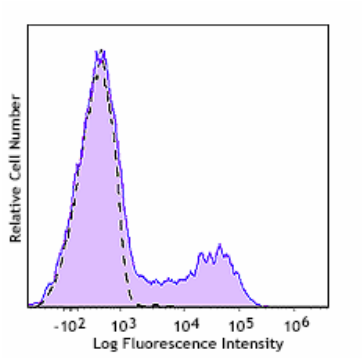
Other Formats

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

Product Data



PHA-stimulated (3 days) human peripheral blood mononuclear cells were stained with anti-human CD25 (clone BC96) PE and anti-human CD103 (Integrin αE) (clone Ber-ACT8) PerCP/Fire™ 806 (left) or mouse IgG1, κ PerCP/Fire™ 806 isotype control (right).



PHA-stimulated (3 days) human peripheral blood mononuclear cells were stained anti-human CD103 (Integrin αE) (clone Ber-ACT8) PerCP/Fire™ 806 (filled histogram) or mouse IgG1, κ PerCP/Fire™ 806 isotype control (open histogram).

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