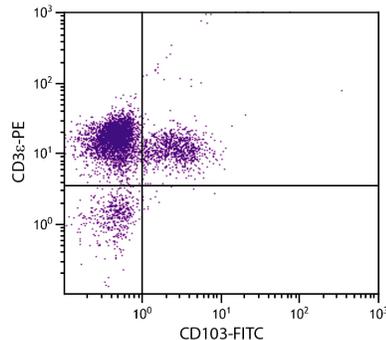




## Hamster Anti-Mouse CD103

Cat. No.	Format	Size
1810-01	Purified (UNLB)	0.5 mg
1810-02	Fluorescein (FITC)	0.5 mg
1810-08	Biotin (BIOT)	0.5 mg
1810-09	R-phycoerythrin (PE)	0.1 mg
1810-14	Low Endotoxin, Azide-Free (LE/AF)	0.5 mg
1810-26	Pacific Blue™ (PACBLU)	0.1 mg
1810-30	Alexa Fluor® 488 (AF488)	0.1 mg
1810-31	Alexa Fluor® 647 (AF647)	0.1 mg



CD-1 mouse mesenteric lymph node cells were stained with Hamster Anti-Mouse CD103-FITC (SB Cat. No. 1810-02) and Rat Anti-Mouse CD3ε-PE (SB Cat. No. 1535-09).

### Overview

<b>Clone</b>	2E7
<b>Isotype</b>	Hamster (Armenian) IgG <sub>2</sub>
<b>Immunogen</b>	C57BL/6J mouse intestinal intraepithelial lymphocytes (IEL)
<b>Specificity</b>	Mouse CD103; Mr 150 & 25 kDa
<b>Alternate Name(s)</b>	Integrin $\alpha_{IEL}$ , $\alpha_E$ integrin, ITGAE

### Description

CD103 is a member of the integrin series of adhesion molecules. This antigen defines a developmentally important subset of T cells, namely mucosal T cells including all IEL (intraepithelial lymphocytes) and ~20% of lamina propria T cells. Expression of CD103 is more restricted outside these mucosal organs appearing at lower levels on T cell subsets of the lymph node, dendritic epidermis, and periphery. In non-epithelial CD103<sup>+</sup> T cells there is a bias toward expression on CD8<sup>+</sup> cells. The 2E7 monoclonal antibody exhibits antigen immunoprecipitation patterns similar if not identical to the rat anti-mouse CD103 monoclonal antibody M290. 2E7 is reported to have signal-inducing activity in a redirected lysis assay and to costimulate IEL and CD8<sup>+</sup> lymph node cells in conjunction with anti-TCR *in vitro* which runs counter to the usual inhibition of CTL by anti-integrins. This costimulatory activity is also shared by the monoclonal antibody M290. The property of costimulation is not unique to the mouse since the combination of anti-human  $\alpha_{IEL}$  plus anti-TCR will produce similar proliferation in human cells with the exception that CD8<sup>+</sup> cells are not stimulated.

### Applications

FC – Quality tested <sup>2</sup>  
 IP – Reported in literature <sup>2</sup>  
 IHC-FS – Reported in literature <sup>2</sup>  
 Activ – Reported in literature <sup>3</sup>

### Working Dilutions

<b>Flow Cytometry</b>	FITC, BIOT, PACBLU, and AF488 conjugates	≤ 1 μg/10 <sup>6</sup> cells
	PE and AF647 conjugates	≤ 0.2 μg/10 <sup>6</sup> cells
For flow cytometry, the suggested use of these reagents is in a final volume of 100 μL		

**Other Applications** Since applications vary, you should determine the optimum working dilution for the product that is appropriate for your specific need.

**For Research Use Only. Not for Diagnostic or Therapeutic Use.**

## Handling and Storage

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- The purified (UNLB) antibody is supplied as 0.5 mg of purified immunoglobulin in 1.0 mL of borate buffered saline, pH 8.2. *No preservatives or amine-containing buffer salts added.* Store at 2-8°C.
- The fluorescein (FITC) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN<sub>3</sub>. Store at 2-8°C.
- The biotin (BIOT) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN<sub>3</sub>. Store at 2-8°C.
- The R-phycoerythrin (PE) conjugate is supplied as 0.1 mg in 1.0 mL of PBS/NaN<sub>3</sub> and a stabilizing agent. Store at 2-8°C. **Do not freeze!**
- The low endotoxin, azide-free (LE/AF) antibody is supplied as 0.5 mg purified immunoglobulin in 1.0 mL of PBS. Contains no preservative; handle under aseptic conditions. Store at 2-8°C or aliquot into smaller volumes and store at -20°C. Avoid multiple freeze / thaw cycles.
- The Alexa Fluor® 488 (AF488), Alexa Fluor® 647 (AF647), and Pacific Blue™ (PACBLU) conjugates are supplied as 0.1 mg in 0.2 mL of PBS/NaN<sub>3</sub>. Store at 2-8°C.
- Protect fluorochrome-conjugated forms from light. Reagents are stable for the period shown on the label if stored as directed.

## Warning

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Some reagents contain sodium azide. Please refer to product specific SDS.

## References

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1. Goodman T, Lefrançois L. Intraepithelial lymphocytes. Anatomical site, not T cell receptor form, dictates phenotype and function. *J Exp Med.* 1989;170:1569-81. (Immunogen)
2. Lefrançois L, Barrett TA, Havran WL, Puddington L. Developmental expression of the  $\alpha_{IEL}\beta_7$  integrin on T cell receptor  $\gamma\delta$  and T cell receptor  $\alpha\beta$  T cells. *Eur J Immunol.* 1994;24:635-40. (IP, IHC-FS, FC)
3. Müller S, Jungo M, Aichele P, Mueller C. CD5<sup>-</sup> CD8 $\alpha\beta$  intestinal intraepithelial lymphocytes (IEL) are induced to express CD5 upon antigen-specific activation: CD5<sup>-</sup> and CD5<sup>+</sup> CD8 $\alpha\beta$  IEL do not represent separate T cell lineages. *Eur J Immunol.* 1997;27:1756-61. (Activ)

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08-Oct-21