

Alexa Fluor® 700 anti-mouse CD103

Catalog # / Size: 1207205 / 25 µg
1207210 / 100 µg

Clone: 2E7

Isotype: Hamster IgG

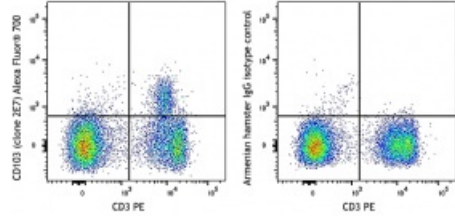
Immunogen: Mouse intestinal intraepithelial lymphocytes

Reactivity: Mouse

Preparation: The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 700 under optimal conditions. The solution is free of unconjugated Alexa Fluor® 700.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).

Concentration: 0.5 mg/ml



C57BL/6 mouse splenocytes were stained with CD3 PE and CD103 (clone 2E7) Alexa Fluor® 700 (left) or armenian hamster IgG Alexa Fluor® 700 isotype control (right).

Applications:

Applications: Flow Cytometry

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 ≤ 1.0 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.

* Alexa Fluor® 700 has a maximum emission of 719 nm when it is excited at 633 nm / 635 nm. Prior to using Alexa Fluor® 700 conjugate for flow cytometric analysis, please verify your flow cytometer's capability of exciting and detecting the fluorochrome.

Application Notes: Additional reported applications (for the relevant formats) include: immunoprecipitation¹, immunohistochemical staining^{1,7} of acetone-fixed frozen sections, immunofluorescence², and *in vitro* activation¹.

- Application References:**
1. LeFrancois L, *et al.* 1994. *Eur. J. Immunol.* 24:635. (FC, IHC, IP)
 2. Mysorekar IU, *et al.* 2002. *J. Biol. Chem.* 277:37811. (FC, IF)
 3. Mikami N, *et al.* 2011. *J. Immunol.* 186:6886. [PubMed](#)
 4. del Rio ML, *et al.* 2011. *Transpl. Int.* 24:501. (FC) [PubMed](#)
 5. Quinn KM, *et al.* 2013. *J. Immunol.* 191:5085. [PubMed](#)
 6. Verhagen J and Wraith DC. 2014. *J. Immunol. Methods.* S0022. (FC) [PubMed](#)
 7. Xiao B, *et al.* 2015. *PLoS One* 1:e0115333. (IHC)

Description: CD103 is a type I transmembrane glycoprotein known as αE integrin or Integrin α_{IEL} 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 β_7 , CD103 is expressed as $\alpha E/\beta_7$ 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.

- Antigen**
- References:**
1. Kilshaw PJ and SJ. Murant. 1990. *Eur. J. Immunol.* 20:2201.
 2. Karecla PI, et al. 1995. *Eur. J. Immunol.* 25:852.
 3. LeFrancois L, et al. 1994. *Eur. J. Immunol.* 24:635.
 4. Sung SS, et al. 2006. *J. Immunol.* 176:2161.
 5. Johansson-Lindbom B, et al. 2005. *J. Exp. Med.* 202:1063.
 6. Dujardin HC, et al. 2004. *Proc. Natl. Acad. Sci. USA.* 101:14473.