SONY

Product Data Sheet

FITC anti-human CD103 (Integrin αE)

Catalog # / Size: 2351015 / 25 tests
2351020 / 100 tests

Clone: Ber-ACT8

Isotype: Mouse IgG1, κ

Immunogen: HTLV-1 induced human T cell line MAPS16

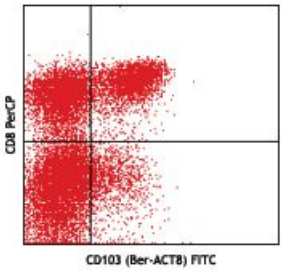
Reactivity: Human, Non-human primate

Preparation: The antibody was purified by affinity chromatography, and conjugated with FITC under optimal conditions.

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

Workshop Number: V A067

Concentration: Lot-specific



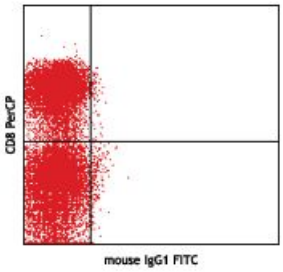
PHA-stimulated (3 day) human peripheral blood mononuclear cells stained with CD103 (Ber-ACT8) FITC and CD8 PerCP

Applications:

Applications: Flow Cytometry

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. **Test size products are transitioning from 20 µl to 5 µl per test**. Please check your vial or your CoA to find the suggested use of this reagent per million cells in 100 µl staining volume or per 100 µl of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

Application Notes: Additional reported applications (for the relevant formats) include: Western Blotting1, immunoprecipitation1, and immunohistochemical staining of frozen tissue sections1.



PHA-stimulated (3 day) human peripheral blood lymphocytes stained with mouse IgG1, κFITC isotype control and CD8 PerCP

Application References:

1. Kruschwitz M, *et al.* 1991. *J. Clin. Pathol.* 44:636. (WB, IP, IHC)
2. Yoshino N, *et al.* 2000. *Exp. Anim. (Tokyo)* 49:97. (FC)

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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.

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.

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