

AM26142RP-N**Monoclonal Antibody to CD103 - PE**

Alternate names:	HML-1 antigen, ITGAE, Integrin alpha-E, Integrin alpha-IEL, Mucosal lymphocyte 1 antigen
Quantity:	100 Tests
Background:	CD103 / Integrin alphaE is an integrin subunit that is expressed on intraepithelial lymphocytes, epithelial dendritic cells, lamina propria-derived dendritic cells, a subpopulation of lamina propria T cells, a small subset of peripheral lymphocytes, namely T reg cells, and on activated and TGF-beta stimulated lymphocytes. CD103 is in mature form cleaved into two disulfide-linked chains (C-terminal 150 kDa chain and N-terminal 25 kDa chain). It heterodimerizes with integrin beta7 subunit to form alphaE/beta7 integrin (mucosal lymphocyte 1 antigen), which through binding E-cadherin mediates homing of lymphocytes to the intestinal epithelium, and, in addition to the role in adhesion, may serve as an accessory molecule for intraepithelial lymphocyte activation.
Uniprot ID:	P38570
NCBI:	NP_002199.3
GeneID:	3682
Host / Isotype:	Mouse / IgG1
Recommended Isotype Controls:	SM10R (for use in human samples)
Clone:	Ber-ACT8
Immunogen:	HTLV-1 induced human T cell line MAPS16
Format:	State: Liquid purified Ig fraction Buffer System: PBS Preservatives: 15 mM sodium azide Stabilizers: 0.2% (w/v) high-grade protease free Bovine Serum Albumin Label: PE – Conjugated with R-Phycoerythrin (PE) under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use.
Applications:	Flow Cytometry analysis of human blood cells using 10 µl reagent / 100 µl of whole blood or 10 ⁶ cells in a suspension. The content of a vial (1 ml) is sufficient for 100 tests. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	The mouse monoclonal antibody Ber-ACT8 recognizes CD103 (alpha E integrin), a type I transmembrane glycoprotein primarily found on intestinal intraepithelial lymphocytes.
Species Reactivity:	Tested: Human, Non-Human Primates

Storage: Store the antibody at 2 - 8 °C. DO NOT FREEZE! This product is photosensitive and should be protected from light.
Shelf life: one year from despatch.

General Readings:

1. Jaensson E, Uronen-Hansson H, Pabst O, Eksteen B, Tian J, Coombes JL, et al. Small intestinal CD103+ dendritic cells display unique functional properties that are conserved between mice and humans. *J Exp Med*. 2008 Sep 1;205(9):2139-49. doi: 10.1084/jem.20080414. Epub 2008 Aug 18. PubMed PMID: 18710932.
2. Zhang L, Bertucci AM, Ramsey-Goldman R, Burt RK, Datta SK. Regulatory T cell (Treg) subsets return in patients with refractory lupus following stem cell transplantation, and TGF-beta-producing CD8+ Treg cells are associated with immunological remission of lupus. *J Immunol*. 2009 Nov 15;183(10):6346-58. doi: 10.4049/jimmunol.0901773. Epub 2009 Oct 19. PubMed PMID: 19841178.
3. Cardoso CR, Garlet GP, Moreira AP, Júnior WM, Rossi MA, Silva JS. Characterization of CD4+CD25+ natural regulatory T cells in the inflammatory infiltrate of human chronic periodontitis. *J Leukoc Biol*. 2008 Jul;84(1):311-8. doi: 10.1189/jlb.0108014. Epub 2008 May 1. PubMed PMID: 18451325.
4. French JJ, Cresswell J, Wong WK, Seymour K, Charnley RM, Kirby JA. T cell adhesion and cytolysis of pancreatic cancer cells: a role for E-cadherin in immunotherapy? *Br J Cancer*. 2002 Oct 21;87(9):1034-41. PubMed PMID: 12434297.
5. Brandes M, Willimann K, Lang AB, Nam KH, Jin C, Brenner MB, et al. Flexible migration program regulates gamma delta T-cell involvement in humoral immunity. *Blood*. 2003 Nov 15;102(10):3693-701. Epub 2003 Jul 24. PubMed PMID: 12881309.
6. Kost CB, Holden JT, Mann KP. Marginal zone B-cell lymphoma: a retrospective immunophenotypic analysis. *Cytometry B Clin Cytom*. 2008 Sep;74(5):282-6. doi: 10.1002/cyto.b.20426. PubMed PMID: 18500740.
7. Sigmundsdottir H, Johnston A, Gudjonsson JE, Bjarnason B, Valdimarsson H. Methotrexate markedly reduces the expression of vascular E-selectin, cutaneous lymphocyte-associated antigen and the numbers of mononuclear leucocytes in psoriatic skin. *Exp Dermatol*. 2004 Jul;13(7):426-34. PubMed PMID: 15217363.
8. León F, Roy G. Isolation of human small bowel intraepithelial lymphocytes by annexin V-coated magnetic beads. *Lab Invest*. 2004 Jun;84(6):804-9. PubMed PMID: 15154017.
9. Poles MA, Barsoum S, Yu W, Yu J, Sun P, Daly J, et al. Human immunodeficiency virus type 1 induces persistent changes in mucosal and blood gammadelta T cells despite suppressive therapy. *J Virol*. 2003 Oct;77(19):10456-67. PubMed PMID: 12970431.