

TECHNICAL DATA SHEET

CyFlow™ CD103 PE **Anti-Hu; Clone Ber-ACT8**

REF AX666438

For Research Use Only.
Not for use in diagnostic or therapeutic procedures.

Specifications

Antigen	CD103
Alternative Names	HML-1, Integrin α E-subunit
Clone	Ber-ACT8
Clonality	monoclonal
Format	PE
Host / Isotype	Mouse / IgG1
Species Reactivity	Human, Non-Human Primates
Negative Species Reactivity	—
Quantity	100 tests
Immunogen	HTLV-1 induced human T cell line MAPS16

Specificity

The mouse monoclonal antibody Ber-ACT8 recognizes CD103 antigen, a type I transmembrane glycoprotein primarily found on intestinal intraepithelial lymphocytes.

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Application

The reagent is designed for Flow Cytometry analysis of human blood cells. Recommended usage is 10 µl reagent / 100 µl of whole blood or 10⁶ cells in a suspension. The content of a vial (1 ml) is sufficient for 100 tests.

Other usages may be determined from the scientific literature.

Storage Buffer

The reagent is provided in stabilizing phosphate buffered saline (PBS) solution, pH ≈7.4, containing 0.1% (w/v) sodium azide.

Storage and Stability

Storage	Avoid prolonged exposure to light. Store in the dark at 2-8°C. Do not freeze.
Stability	Do not use after expiration date stamped on vial label.

Background Information

CD103 (Integrin αE) 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-β 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 β7 subunit to form αE/β7 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.

References

- 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. < PMID: 12434297 >
- Poles MA, Barsoum S, Yu W, Yu J, Sun P, Daly J, He T, Mehandru S, Talal A, Markowitz M, Hurley A, Ho D, Zhang L: 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. < PMID: 12970431 >

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- Brandes M, Willmann K, Lang AB, Nam KH, Jin C, Brenner MB, Morita CT, Moser B: Flexible migration program regulates gamma delta T-cell involvement in humoral immunity. *Blood*. 2003 Nov 15; 102(10):3693-701. < PMID: 12881309 >
- 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. < PMID: 15154017 >
- 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. < PMID: 15217363 >
- 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. < PMID: 18451325 >
- Jaensson E, Uronen-Hansson H, Pabst O, Eksteen B, Tian J, Coombes JL, Berg PL, Davidsson T, Powrie F, Johansson-Lindbom B, Agace WW: 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. < PMID: 18710932 >
- 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. < PMID: 18500740 >
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- 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. < PMID: 19841178 >

The Safety Data Sheet for this product is available at www.sysmex-partec.com/services.

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