

TECHNICAL DATA SHEET

CyFlow™ CD90 PE Anti-Hu; Clone 5E10

REF AF411705

For Research Use Only.

Not for use in diagnostic or therapeutic procedures.

Specifications

Antigen	CD90
Alternative Names	THY-1
Clone	5E10
Clonality	monoclonal
Format	PE
Host / Isotype	Mouse / IgG1
Species Reactivity	Human, Non-Human Primates Pig Dog
Negative Species Reactivity	—
Quantity	100 tests
Immunogen	HEL erythroleukemia cells

Specificity

The mouse monoclonal antibody 5E10 recognizes CD90 antigen, a GPI-anchored cell surface glycoprotein expressed predominantly on thymocytes, hematopoietic stem cells and neurons.

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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

CD90 (Thy-1) is an 18-35 kDa GPI-anchored plasma membrane glycoprotein expressed in many cell types, such as in hematopoietic cells and neurons, connective tissues, various fibroblast and stromal cell lines, tumor endothelial cell lines and other. It is involved in T cell activation, cellular adhesion, proliferation and migration, neurite outgrowth, wound healing, apoptosis, and fibrosis. CD90 participates in multiple signaling cascades and its effects are tissue- and cell type-specific. It often functions as an important regulator of cell-cell and cell-matrix interactions.

References

- St Louis DC, Woodcock JB, Franzoso G, Blair PJ, Carlson LM, Murillo M, Wells MR, Williams AJ, Smoot DS, Kaushal S, Grimes JL, Harlan DM, Chute JP, June CH, Siebenlist U, Lee KP: Evidence for distinct intracellular signaling pathways in CD34+ progenitor to dendritic cell differentiation from a human cell line model. J Immunol. 1999 Mar 15; 162(6):3237-48. < PMID: 10092775 >
- Ito T, Inaba M, Inaba K, Toki J, Sogo S, Iguchi T, Adachi Y, Yamaguchi K, Amakawa R, Valladeau J, Saeland S, Fukuhara S, Ikehara S: A CD1a+/CD11c+ subset of human blood dendritic cells is a direct precursor of Langerhans cells. J Immunol. 1999 Aug 1; 163(3):1409-19. < PMID: 10415041 >
- Seiffert M, Brossart P, Cant C, Cella M, Colonna M, Brugger W, Kanz L, Ullrich A, Bühring HJ: Signal-regulatory protein alpha (SIRPalpha) but not SIRPbeta is involved in T-cell activation, binds to

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CD47 with high affinity, and is expressed on immature CD34(+)CD38(-) hematopoietic cells. Blood. 2001 May 1; 97(9):2741-9. < PMID: 11313266 >

- Chin-Yee IH, Keeney M, Stewart AK, Belch A, Bence-Buckler I, Couban S, Howson-Jan K, Rubinger M, Stewart D, Sutherland R, Paragamian V, Bhatia M, Foley R: Optimising parameters for peripheral blood leukapheresis after r-metHuG-CSF (filgrastim) and r-metHuSCF (ancestim) in patients with multiple myeloma: a temporal analysis of CD34(+) absolute counts and subsets. Bone Marrow Transplant. 2002 Dec; 30(12):851-60. < PMID: 12476276 >
- Carlsten M, Björkström NK, Norell H, Bryceson Y, van Hall T, Baumann BC, Hanson M, Schedvins K, Kiessling R, Ljunggren HG, Malmberg KJ: DNAX accessory molecule-1 mediated recognition of freshly isolated ovarian carcinoma by resting natural killer cells. Cancer Res. 2007 Feb 1; 67(3):1317-25. < PMID: 17283169 >
- Kroeze KL, Jurgens WJ, Doulabi BZ, van Milligen FJ, Scheper RJ, Gibbs S: Chemokine-mediated migration of skin-derived stem cells: predominant role for CCL5/RANTES. J Invest Dermatol. 2009 Jun; 129(6):1569-81. < PMID: 19122644 >
- Hoppstädter J, Diesel B, Zarbock R, Breinig T, Monz D, Koch M, Meyerhans A, Gortner L, Lehr CM, Huwer H, Kiemer AK: Differential cell reaction upon Toll-like receptor 4 and 9 activation in human alveolar and lung interstitial macrophages. Respir Res. 2010 Sep 15; 11:124. < PMID: 20843333 >

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

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