TECHNICAL DATA SHEET

CyFlow™ CD135 Purified
Anti-Hu; Clone BV10A4

REF **BH161449**

For Research Use Only.

Not for use in diagnostic or therapeutic procedures.

Specifications

Antigen	CD135
Alternative Names	Flt3, Flk2, STK1
Clone	BV10A4
Clonality	monoclonal
Format	Purified
Host / Isotype	Mouse / IgG1
Species Reactivity	Human
Negative Species Reactivity	Mouse
Quantity [Concentration]	0.1 mg [1 mg/ml]
Immunogen	BV-173 leukemic cell line

Specificity

The mouse monoclonal antibody BV10A4 (BV10) reacts with CD135 antigen, a 130-160 kDa type III receptor tyrosine kinase that is involved in early steps of hematopoiesis

Contact Information:

Sysmex Partec GmbH • Am Flugplatz 13 • 02828 Görlitz • Germany
Tel +49 3581 8746 0 • Fax +49 3581 8746 70 • E-mail: info@sysmex-partec.com

Application

Based on published sources, this antibody is suitable for the following applications:

- Flow cytometry
- Immunoprecipitation

Storage Buffer

The reagent is provided in 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

CD135 (FLT3, FLK2, STK-1) is a receptor tyrosine kinase that plays important roles in hematopoiesis. After binding of FLT3 ligand (FL), CD135 homodimerizes and stimulates proliferation, differentiation and protects the cell from apoptosis. The loss of CD90 and gain of CD135 expression marks the loss of self-renewal in hematopoietic stem cell population. Detectable CD135 expression appears first at low levels on the surface of primitive multilineage progenitor cells and disappears during defined stages of B-cell development but is upregulated and maintained during maturation of monocytes. CD135 is also expressed on thymocytes, dendritic cell progenitors and on mature dendritic cells, as well as on various malignant hematopoietic cells.

References

- Kishimoto T, Goyert S, Kikutani H, Mason D, Miyasaka M, Moretta L, Ohno T, Okumura K, Shaw S, Springer TA, Sugamura K, Sugawara H, von dem Borne AEGK, Zola H (Eds): Leucocyte Typing VI. Garland Publishing Inc, New York. 1997; 1-1342. < NLM ID: 9712219 >
- Rappold I, Ziegler BL, Köhler I, Marchetto S, Rosnet O, Birnbaum D, Simmons PJ, Zannettino AC, Hill B, Neu S, Knapp W, Alitalo R, Alitalo K, Ullrich A, Kanz L, Bühring HJ: Functional and phenotypic characterization of cord blood and bone marrow subsets expressing FLT3 (CD135) receptor tyrosine kinase. Blood. 1997 Jul 1; 90(1):111-25. < PMID: 9207445 >

Contact Information:

Sysmex Partec GmbH • Am Flugplatz 13 • 02828 Görlitz • Germany
Tel +49 3581 8746 0 • Fax +49 3581 8746 70 • E-mail: info@sysmex-partec.com

- Haylock DN, Horsfall MJ, Dowse TL, Ramshaw HS, Niutta S, Protopsaltis S, Peng L, Burrell C, Rappold I, Buhring HJ, Simmons PJ: Increased recruitment of hematopoietic progenitor cells underlies the ex vivo expansion potential of FLT3 ligand. Blood. 1997 Sep 15; 90(6):2260-72. < PMID: 9310477 >
- Christensen JL, Weissman IL: Flk-2 is a marker in hematopoietic stem cell differentiation: a simple method to isolate long-term stem cells: a simple method to isolate long-term stem cells. Proc Natl Acad Sci USA. 2001 Dec 4; 98(25):14541-6. < PMID: 11724967 >
- Kuchenbauer F, Kern W, Schoch C, Kohlmann A, Hiddemann W, Haferlach T, Schnittger S: Detailed analysis of FLT3 expression levels in acute myeloid leukemia. Haematologica. 2005 Dec; 90(12):1617-25. < PMID: 16330434 >
- Whartenby KA, Calabresi PA, McCadden E, Nguyen B, Kardian D, Wang T, Mosse C, Pardoll DM, Small D: Inhibition of FLT3 signaling targets DCs to ameliorate autoimmune disease. Proc Natl Acad Sci USA. 2005 Nov 15; 102(46):16741-6. < PMID: 16272221 >

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

Contact Information:

Sysmex Partec GmbH • Am Flugplatz 13 • 02828 Görlitz • Germany
Tel +49 3581 8746 0 • Fax +49 3581 8746 70 • E-mail: info@sysmex-partec.com