EXBIO Antibodies

PRODUCT DATA SHEET

11-587-C025

Monoclonal Antibody to CD135 Purified Antibody (0.025 mg)

Clone:	BV10A4
Isotype:	Mouse IgG1
Specificity:	The mouse monoclonal antibody BV10A4 (BV10) reacts with CD135 (FLT3, FLK2, STK-1), a 130-160 kDa type I transmembrane receptor tyrosine kinase that is involved in early steps of hematopoiesis.
Regulatory Status:	RUO
Immunogen:	BV-173 leukemic cell line
Species Reactivity:	Human
Negative Species:	Mouse
Application:	Flow Cytometry Application note:Tested on cell lines K562 and REH. In this case the recommended concentration is 10 µg/ml per 1 million cells/ml. Immunoprecipitation
Purity:	> 95% (by SDS-PAGE)
Purification:	Purified by protein-A affinity chromatography
Concentration:	1 mg/ml
Storage Buffer:	Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4
Storage / Stability:	Store at 2-8°C. Do not freeze. Do not use after expiration date stamped on vial label.
Expiration:	See vial label
Lot Number:	See vial label
Background:	CD135 / FLT3, also known as FLK2 or 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.

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References:

*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.
*Christensen JL, Weissman IL: Flk-2 is a marker in hematopoietic stem cell differentiation: a simple method to isolate long-term stem cells. Proc Natl Acad Sci U S A. 2001 Dec 4;98(25):14541-6.
*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 U S A. 2005 Nov 15;102(46):16741-6.
*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.
*Leukocyte Typing VI., Kishimoto T. et al. (Eds.), Garland Publishing Inc. (1997).
*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.

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