ARG65425
anti-CD135 / FLT3 antibody [BV10A4]

Package: 100 µg
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [BV10A4] recognizes CD135 / FLT3
Tested Reactivity	Hu
Species Does Not React With	Ms
Tested Application	FACS, IP
Specificity	The mouse monoclonal antibody BV10A4 (BV10) reacts with CD135 (FLT3, FLK2, STK1), a 130160 kDa type III receptor tyrosine kinase that is involved in early steps of hematopoiesis.
Host	Mouse
Clonality	Monoclonal
Clone	BV10A4
Isotype	IgG1
Target Name	CD135 / FLT3
Immunogen	BV-173 leukemic cell line
Conjugation	Un-conjugated
Alternate Names	CD135; FLK2; Receptor-type tyrosine-protein kinase FLT3; FLK-2; STK-1; STK1; FL cytokine receptor; FLT-3; Stem cell tyrosine kinase 1; Fetal liver kinase-2; Fms-like tyrosine kinase 3; CD antigen CD135; EC 2.7.10.1

Application Instructions

Application table

Application	Dilution
FACS	1 - 4 µg/ml
IP	Assay-dependent

Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.
Positive Control	FACS: K562 and REH.

Properties

Form	Liquid
Purification	Purified from ascites by protein-A affinity chromatography.
Purity	> 95% (by SDS-PAGE)
Buffer	PBS (pH 7.4) and 15 mM Sodium azide
Preservative	15 mM Sodium azide
Concentration	1 mg/ml

Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links	GeneID: 2322 Human Swiss-port # P36888 Human
Gene Symbol	FLT3
Gene Full Name	fms-related tyrosine kinase 3
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.
Function	Tyrosine-protein kinase that acts as cell-surface receptor for the cytokine FLT3LG and regulates differentiation, proliferation and survival of hematopoietic progenitor cells and of dendritic cells. Promotes phosphorylation of SHC1 and AKT1, and activation of the downstream effector MTOR. Promotes activation of RAS signaling and phosphorylation of downstream kinases, including MAPK1/ERK2 and/or MAPK3/ERK1. Promotes phosphorylation of FES, FER, PTPN6/SHP, PTPN11/SHP-2, PLCG1, and STAT5A and/or STAT5B. Activation of wild-type FLT3 causes only marginal activation of STAT5A or STAT5B. Mutations that cause constitutive kinase activity promote cell proliferation and resistance to apoptosis via the activation of multiple signaling pathways. [UniProt]
Research Area	Immune System antibody; Signaling Transduction antibody
Calculated Mw	113 kDa
PTM	N-glycosylated, contains complex N-glycans with sialic acid. Autophosphorylated on several tyrosine residues in response to FLT3LG binding. FLT3LG binding also increases phosphorylation of mutant kinases that are constitutively activated. Dephosphorylated by PTPRJ/DEP-1, PTPN1, PTPN6/SHP-1, and to a lesser degree by PTPN12. Dephosphorylation is important for export from the endoplasmic reticulum and location at the cell membrane. Rapidly ubiquitinated by UBE2L6 and the E3 ubiquitin-protein ligase SIAH1 after autophosphorylation, leading to its proteasomal degradation.