

ARG42300 anti-CD135 / FLT3 antibody [BV10A4] (APC)

Package: 50 tests

Store at: 4°C

Summary

Product Description	APC-conjugated Mouse Monoclonal antibody [BV10A4] recognizes CD135 / FLT3
Tested Reactivity	Hu
Species Does Not React With	Ms
Tested Application	FACS
Specificity	The mouse monoclonal antibody BV10A4 (BV10) reacts with an extracellular epitope of CD135 (FLT3, FLK2, STK-1), a 130-160 kDa type I transmembrane receptor tyrosine kinase that is involved in early steps of hematopoiesis.
Host	Mouse
Clonality	Monoclonal
Clone	BV10A4
Isotype	IgG1
Target Name	CD135 / FLT3
Species	Human
Immunogen	BV-173 leukemic cell line.
Conjugation	APC
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	<table><thead><tr><th>Application</th><th>Dilution</th></tr></thead><tbody><tr><td>FACS</td><td>10 µl / 100 µl of whole blood or 10⁶ cells</td></tr></tbody></table>	Application	Dilution	FACS	10 µl / 100 µl of whole blood or 10 ⁶ cells
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FACS	10 µl / 100 µl of whole blood or 10 ⁶ cells				
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.				

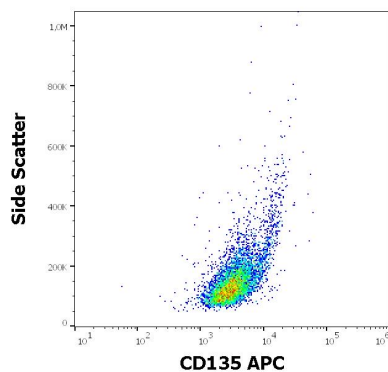
Properties

Form	Liquid
Purification	Purified
Buffer	PBS and 15 mM Sodium azide.
Preservative	15 mM Sodium azide
Storage instruction	Aliquot and store in the dark at 2-8°C. Keep protected from prolonged exposure to light. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Bioinformation

Gene Symbol	FLT3
Gene Full Name	fms-related tyrosine kinase 3
Background	This gene encodes a class III receptor tyrosine kinase that regulates hematopoiesis. This receptor is activated by binding of the fms-related tyrosine kinase 3 ligand to the extracellular domain, which induces homodimer formation in the plasma membrane leading to autophosphorylation of the receptor. The activated receptor kinase subsequently phosphorylates and activates multiple cytoplasmic effector molecules in pathways involved in apoptosis, proliferation, and differentiation of hematopoietic cells in bone marrow. Mutations that result in the constitutive activation of this receptor result in acute myeloid leukemia and acute lymphoblastic leukemia. [provided by RefSeq, Jan 2015]
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]
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. [UniProt]
Cellular Localization	Membrane; Single-pass type I membrane protein. Endoplasmic reticulum lumen. Note=Constitutively activated mutant forms with internal tandem duplications are less efficiently transported to the cell surface and a significant proportion is retained in an immature form in the endoplasmic reticulum lumen. The activated kinase is rapidly targeted for degradation. [UniProt]

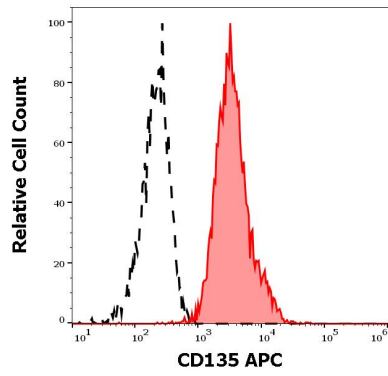
Images



ARG42300 anti-CD135 / FLT3 antibody [BV10A4] (APC) FACS image

Flow Cytometry: REH cell suspension stained with ARG42300 anti-CD135 / FLT3 antibody [BV10A4] (APC) at 10 μ l / 10⁶ cells in 100 μ l of cell suspension.

ARG42300 anti-CD135 / FLT3 antibody [BV10A4] (APC) FACS image



Flow Cytometry: Separation of REH cells stained with ARG42300 anti-CD135 / FLT3 antibody [BV10A4] (APC) at 10 μ l / 10⁶ cells in 100 μ l of cell suspension (red-filled) from REH cells stained with [ARG65336](#) Mouse IgG1 Kappa Isotype Control antibody [MOPC-21] (APC) at 5 μ g/ml dilution (black-dashed).