# ARG54230
# anti-CD135 / FLT3 antibody [BV10A4] (PE)

Package: 50 tests
Store at: 4°C

## Summary

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| Product Description | PE-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 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 | PE |
| 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 |
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| FACS | 20 µl / 10^6 cells |

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

## Properties

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| Form | Liquid |
| Purification Note | The purified antibody is conjugated with R-Phycoerythrin (PE) under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary. |
| Buffer | PBS, 15 mM Sodium azide and 0.2% (w/v) high-grade protease free BSA |
| Preservative | 15 mM Sodium azide |
| Stabilizer | 0.2% (w/v) high-grade protease free BSA |
| 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. |

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| Note | For laboratory research only, not for drug, diagnostic or other use. |

## Bioinformation

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| Database links | GeneID: 2322 Human<br><br>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.<br>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.<br>Rapidly ubiquitinated by UBE2L6 and the E3 ubiquitin-protein ligase SIAH1 after autophosphorylation, leading to its proteasomal degradation. |