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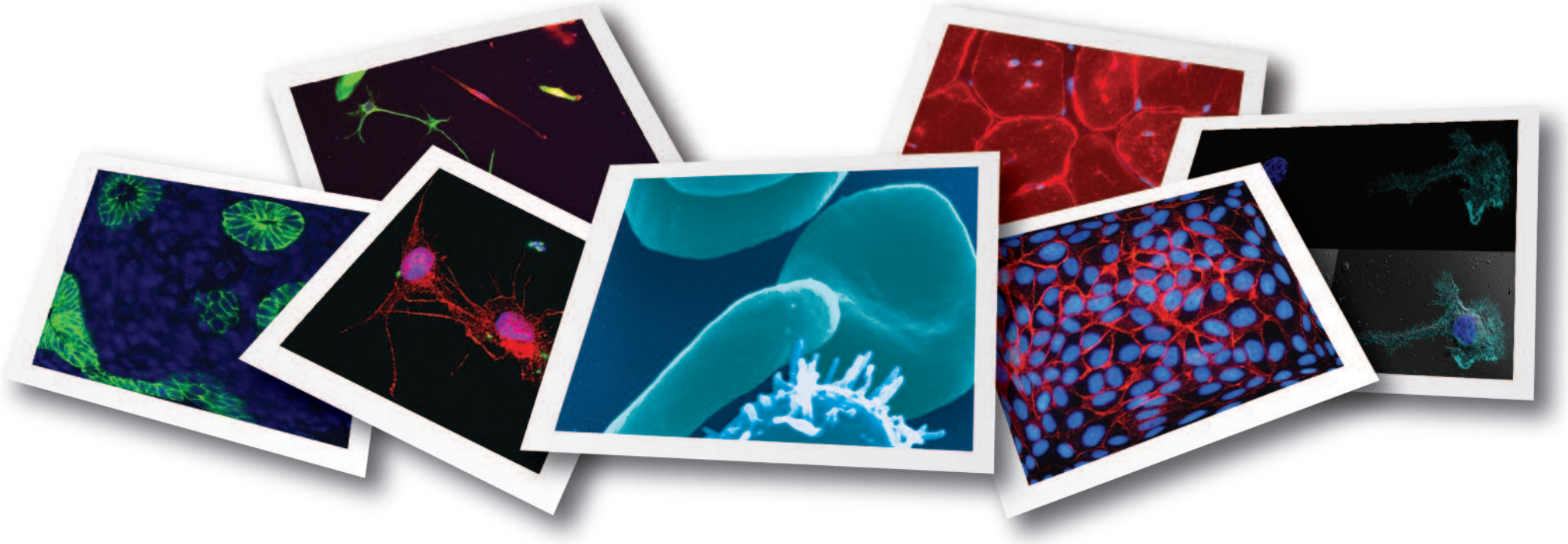
Guide to Human CD antigens



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A note on CD antigens

The cluster of differentiation (CD) nomenclature system was conceived to classify antigens found on the surface of leukocytes. Initially, surface antigens were named after the monoclonal antibodies that bound to them. As there were often multiple monoclonal antibodies raised against each antigen by different labs, the need arose to adopt a consistent nomenclature. The current system was adopted in 1982, during the 1st International Workshop and Conference on Human Leukocyte Differentiation Antigens (HLDA) in Paris.

Under the current naming system, antigens that are well characterized are assigned an arbitrary number (e.g. CD1, CD2 etc) whereas molecules that are recognised by just one monoclonal antibody are given the provisional designation "CDw". Physiologically, CD antigens do not belong in any particular class of molecules, with their functions ranging from cell surface receptions to adhesion molecules. Although initially used for just human leukocytes, the CD molecule naming convention has now been expanded to cover both other species (e.g. mouse) as well as other cell types. Human CD antigens are currently numbered up to CD363.

The presence or absence of a specific antigen from the surface of particular cell population is denoted with "+" or "-" respectively. Varying cellular expression levels are also marked as ^{hi} or ^{low}, for example central memory T cells are CD62L^{hi} whereas effector memory T cells are CD62L^{low}. Monitoring the expression profiles of different CD antigens has permitted the identification, isolation and phenotyping of cell types according to their function in various immune processes.

Abbreviations

ADCC	Antibody-dependent cell-mediated cytotoxicity
APC	Allophycocyanin
FITC	Fluorescein Isothiocyanate
NFkB	NF-kappa-B
OC 515™	Orange Cytognos 515™
PBMCs	Peripheral blood mononuclear cells
PerCP	Perinidin Chlorophyll Protein
PE	Phycoerythrin

Disclaimers

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Target name	Alternative name	Cellular expression	Functions	Polyclonal	Monoclonal												Protein	Immunoassay kits
					Unconjugated	CF™405M	OC 515™	FITC	PE	APC	PE/Cy™5	PerCP	APC/Cy™7	PE/Cy™7	Other fluorochrome	Biotin		
CD1a	-	Cortical thymocytes, Langerhans cells, dendritic cells and certain T-cell leukemias.	Non-peptide antigen presentation to T-cell receptors on NKT cells, marks T-cells at the short cortical thymic stage of differentiation.	•	• •	•		•	• •	• •								
CD1b	-	Cortical thymocytes, Langerhans cells and dendritic cells.	Non peptide antigen presentation to T-cell receptors on NKT cells.	•	•			•									•	
CD1c	-	Cortical thymocytes, Langerhans cells, dendritic cells and B-cell subsets.	Non peptide antigen presentation to T-cell receptors on NKT cells.		•			•									•	
CD1d	R3G1	Intestinal epithelial cells, B-cell subsets, cortical thymocytes, dendritic cells and certain T-cell leukemias.	Non peptide antigen presentation to T-cell receptors on NKT cells.	•	•			•	•							•	•	
CD1e	R2G1	Cortical thymocytes, Langerhans cells, dendritic cells and certain T-cell leukemias.	Non peptide antigen presentation.	•														
CD2	SRBC, Erythrocyte receptor, LFA-2, LFA-3 receptor, Rosette receptor	Thymocytes, natural killer cells, T- and B-cells.	Adhesion between T-cells and other cell types and T-cell activation.	•	•	•		•	•	•	•	•			•	•	•	
CD3d	T3D, OKT3	Mature T-cells and thymocytes.	T-cell activation signaling and regulation of TCR expression.	•*	•*	•*		•*	•*	•*	•*	•*	•*	•*	•*	•*	•*	
CD3e	T3E, TCRE	Mature T-cells and thymocytes.	T-cell activation signaling and regulation of TCR expression.	•	•			•	•	•	•				•	•	•	
CD3g	T3G	Mature T-cells and thymocytes.	T-cell activation signaling and regulation of TCR expression.	•	•												•	
CD4	-	Thymocyte subsets, T-helper cells, regulatory T-cells, monocytes and macrophages.	T-cell activation, thymic differentiation and receptor for HIV.	•	•	•		•	•	•	•	•	•	•	•	•	•	
CD5	LEU1	Thymocytes, T- and B-cell subsets and B-cell chronic lymphocytic leukemia cells.	Regulates T-cell: B-cell interactions. Interacts with CD72.	•	•	•	•	•	•	•	•	•		•		•	•	
CD6	OX52, T12, TP120	Thymocytes, T- and B-cell subsets and neuron subsets.	Thymocyte development, a potential market of T-cell activation.	•	•	•		•	•	•		•				•	•	
CD7	LEU 9, GP40, TP41	Thymocytes, T-cells, natural killer cells and pluripotent hematopoietic stem cells.	T-cell costimulation. Interacts with SECTM1.	•	•			•	•			•				•	•	
CD8a	MAL	Thymocyte subsets, cytotoxic T-cells, natural killer cells and dendritic cells subsets.	Co-receptor for MHC class 1 molecules.	•	•	•		•	•	•	•	•	•	•	•	•	•	
CD8b	CD8B1	Thymocyte subsets and cytotoxic T-cells.	Co-receptor for MHC class 1 molecules.	•	•			•	•	•	•					•	•	
CD9	P24, 5H9 antigen, MIC3, TSPAN29, GIG2	Platelets, pre-B-cells, eosinophils, basophils, activated T-cells, endothelial cells and epithelial cells.	Cell adhesion and migration, platelet activation and aggregation.	•	•	•	•	•	•	•						•	•	
CD10	Neprilysin, CALLA, SFE, MME, EPN	B- and T-cell precursors, fibroblasts, neurons and bone marrow stromal cells.	Peptidase, regulates B-cell growth.	•	•			•	•	•	•	•		•		•	•	
CD11a	Integrin alpha-L, LFA-1A, ITGAL	Leukocytes, lymphocytes, granulocytes, monocytes and macrophages.	Intracellular adhesion and costimulation.	•	•	•	•	•	•	•		•		•		•	•	
CD11b	**Integrin alpha-M, CR3A, ITGAM**	**Granulocytes, monocytes, natural killer cells, T- and B-cells and dendritic cells.**	**Cell adhesion, apoptosis and chemotaxis.**	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
CD11c	Integrin alpha-X, Leu M5, ITGAX	Monocytes, macrophages, granulocytes, T- and B-cell subsets.	Cell adhesion.	•	•			•	•	•		•				•	•	
CD11d	Integrin-alpha-D, ADB2, ITGAD	Myelomonocytic cells, peripheral blood leukocyte subsets and tissue-specialized cells.	Receptor for ICAM3 and VCAM1. May play a role in atherosclerotic process and phagocytosis of blood-borne pathogens.															
CD13	Aminopeptidase N, ANPEP, APN, PEPN	Granulocytes, monocytes (+ precursors), endothelial cells and epithelial cells.	Zinc binding metalloproteinase.	•	•			•	•	•		•				•	•	
CD14	**-**	**Monocytes, macrophages (myelomonocytic cells), Langerhans cells and granulocytes.**	**Receptor for complex of LPS and LBP.**	•	•	•		•	•	•	•	•	•	•	•	•	•	•
CD15	3-FAL, ELAM 1 ligand, fucosyltransferase, Leu M1	Granulocytes, monocytes, neutrophils and eosinophils.	Cell adhesion. Mediates phagocytosis and chemotaxis.		•	•	•	•	•	•		•				•	•	
CD16a	Fc-gamma RIII-alpha, FCGR3A, FCG3, FCGR3, IGFR3	Neutrophils, natural killer cells and macrophages.	Low affinity Fc receptor. Mediates phagocytosis and ADCC.	•	•			•	•	•		•			•	•	•	
CD16b	Fc-gamma RIII-beta, FCGR3B, FCG3, FCGR3, IGFR3	Neutrophils and stimulated eosinophils.	Low affinity Fc receptor.		•													

Key *: against pan-CD3 ■: Featured product

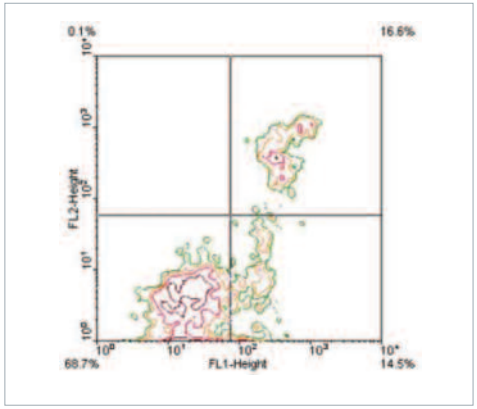
Target name	Alternative name	Cellular expression	Functions	Polyclonal	Monoclonal											Protein	Immunoassay kits
					Unconjugated	CF™405M	OC 515™	FITC	PE	APC	PE/Cy™5	PerCP	APC/Cy™7	PE/Cy™7	Other fluorochrome	Biotin		
CD17	Lactosylceramide	Monocytes, platelets, B-cell subsets, granulocytes, dendritic cells, T-cells, platelets, neutrophils and thrombocytes.	Lactocyl ceramide. Cell surface glycosphingolipid. May play a role in bacterial phagocytosis.		•													
CD18	Integrin beta-2, ITGB2, MFI7	Leukocytes.	Forms the beta 2 chain of CD11a-c, cell adhesion.	•	•	•	•	•	•	•		•				•	•	
CD19	**B-lymphocyte surface antigen B4, T-cell surface antigen Leu-12**	**B-cells (but not plasma cells) and follicular dendritic cells.**	**Regulates B-cell development, activation and differentiation. Signal transduction.**	•	•	•		•	•	•	•	•	•	•	•	•	•	
CD20	B-lymphocyte surface antigen B1, Bp35, Leukocyte surface antigen Leu-16, MS4A1	T- and B-cell subsets.	B-cell activation and proliferation.	•	•	•		•	•	•	•	•	•	•	•	•	•	
CD21	Complement receptor type 2, CR2, C3DR, Complement C3d receptor, Epstein-Barr virus receptor	Mature B-cells, follicular dendritic cells and T-cell subsets.	Signal transduction. Receptor for complement components C3Dd and iC3b as well as the Epstein-Barr virus (EBV) glycoprotein gp350/220.		•	•		•	•	•					•	•		•
CD22	SIGLEC2, BL-CAM, T-cell surface antigen Leu-14	Mature B-cells.	B-cell adhesion and signal transduction.	•	•	•		•	•	•	•					•	•	
CD23	Low affinity immunoglobulin epsilon Fc receptor, BLAST-2, Fc epsilon RII, FCER2, CLEC4J	Mature B-cells, activated macrophages, eosinophils, follicular dendritic cells and platelets.	Low affinity receptor for IgE, ligand for CD19, CD21 and CD81.	•	•			•	•	•				•		•	•	•
CD24	**Nectadrin**	**B-cells, granulocytes, epithelial cells and monocytes.**	**Regulation of B-cell proliferation and differentiation.**	•	•			•	•	•	•					•		
CD25	Interleukin-2 receptor subunit alpha, IL2RA, TAC antigen	Activated T- and B-cells, some thymocytes, pre B-cells, regulatory T-cells, and oligodendrocytes.	Receptor for IL2.	•	•	•		•	•	•	•	•		•		•	•	•
CD26	Dipeptidyl peptidase 4, DPP4 , ADABP, ADCP2	Mature thymocytes, T-cells (upregulated on activation), activated B-cells, natural killer cells, epithelial cells and macrophages.	Exoprotease. HIV pathogenesis.	•	•	•		•	•	•						•	•	•
CD27	TNF receptor superfamily member 7, TNFRSF 7, CD27L receptor, T14	T-cells, medullary thymocytes, B-cell subsets and natural killer cells.	Costimulation of B- and T-cell activation.	•	•			•	•	•	•			•		•	•	
CD28	TP44	Most T-cells, thymocytes, plasma cells, natural killer cells and activated B-cells.	Costimulation of T-cells. Induces T-cell activation and survival, interleukin-2 production, T-helper type 2 cell development and clonal expansion.	•	•			•	•	•	•	•				•		•
CD29	Integrin beta-1, ITGB1, Fibronectin receptor subunit beta, FNRB	Leukocytes.	Interacts with CD49a in VLA-1 integrin. Lymphocyte and endothelial adhesion, lymphocyte trafficking and transvascular migration. Promotes or inhibits apoptosis (depending on stimulus).	•	•	•		•	•	•				•		•	•	
CD30	TNF receptor superfamily member 8, TNFRSF8, Ki-1 antigen	Activated T- and B-cells, monocytes, activated natural killer cells and Reed-Sternberg cells.	Regulates lymphocyte proliferation and cell death. Has a critical role in the pathophysiology of Hodgkin's disease and other CD30+ lymphomas.	•	•			•	•	•						•	•	•
CD31	Platelet endothelial cell adhesion molecule, PECAM1	Monocytes, platelets, granulocytes, endothelial cells, lymphocyte subsets and epithelial cells.	Cell adhesion. Plays a key role in leukocyte trafficking across endothelium.	•	•	•		•	•	•		•		•	•	•	•	•
CD32	Fc gamma RII, FCGR2A, FCGR2B	B-cells, monocytes, granulocytes, platelets and endothelial cells.	Regulation of B-cell function. Induces phagocytosis and mediator release.	•	•			•	•							•	•	
CD33	Sialic acid-binding Ig-like lectin 3, SIGLEC3	Monocytes, granulocytes, mast cells and myeloid progenitors.	Lectin activity and adhesion. A receptor that inhibits the proliferation of normal and leukemic myeloid cells.	• •	•		•		•		•			•	•	•		
CD34	**-**	**Hematopoietic stem cells and progenitors and capillary endothelial cells.**	**Cell adhesion (via L-selectin). Possible role in early hematopoiesis by mediating the attachment of stem cells to the bone marrow extracellular matrix or directly to stromal cells.**	•	•			•	•	•		•				•	•	
CD35	Complement receptor type 1, C3b/C4b receptor	Erythrocytes, B-cells, monocytes, neutrophils, eosinophils, follicular dendritic cells and T-cell subsets.	Receptor for complement components C3b and C4b. Mediates adhesion and phagocytosis.		•			•	•									
CD36	Platelet glycoprotein 4, Fatty acid translocase, Glycoprotein IIIb, GP3B, GP4	Platelets, monocytes, macrophages, endothelial cells and thyroid precursors.	Scavenger receptor preferentially found within lipid rafts. Mediates adhesion and phagocytosis.	•	•			•	•	•							•	•
CD37	Tetraspanin 26, TSPAN26	Mature B-cells and myeloid cells. Low level of expression in T-cells, granulocytes and monocytes.	Signal transduction. Regulates T-cell proliferation.	•	•			•										
CD38	ADP ribosyl cyclase 1	Variable expression levels on most hematopoietic and some non-hematopoietic cells. High levels on plasma cells, early T- and B-cells, activated T-cells and germinal centre B-cells.	Regulates cell activation, proliferation and adhesion.	•	•	•	•	•	•	•	•	•		•	•	•	•	
CD39	NTPDase 1, ENTPD1	Macrophages, Langerhans cells, dendritic cells, activated B-cells, natural killer cells and microglial cells.	B-cell adhesion. Protects activated cells from lysis.	•	•			•	•								•	
CD40	TNF receptor superfamily member 5, TNFRSF5	B-cells, monocytes, macrophages, follicular dendritic cells, endothelial cells, fibroblasts and keratinocytes.	Costimulation of B-cell growth. Differentiation and isotype switching.	•	•	•		•	•	•	•	•				•	•	•

Rat monoclonal [M1/70] to CD11b (ab24874)

Species reactivity
Mouse
Human (predicted)

Conjugate
FITC

ab24874 at 1µg/10^6 cells staining BALB/c splenocytes. Cells were then double stained with a rat monoclonal antibody to Ly6g (Phycoerythrin) (ab24884). Lymphocytes were gated and analyzed by flow cytometry.

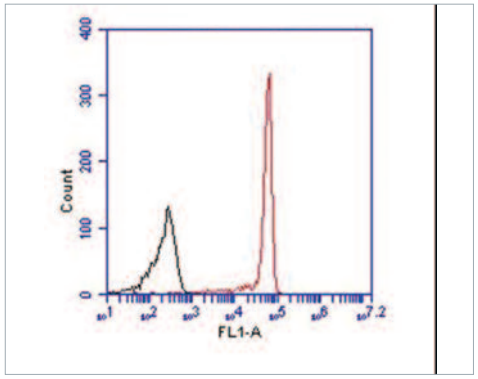


Mouse monoclonal [MEM-15] to CD14 (ab28061)

Species reactivity
Human

Conjugate
FITC

ab28061 staining CD14 in peripheral blood mononuclear cells by flow cytometry. The cells were prepared using 10 µL FITC antiCD14 to 50 µL (~100,000) cells in PBS/5%FCS and incubated on ice for 45 min. Cells were gated on viable cells.

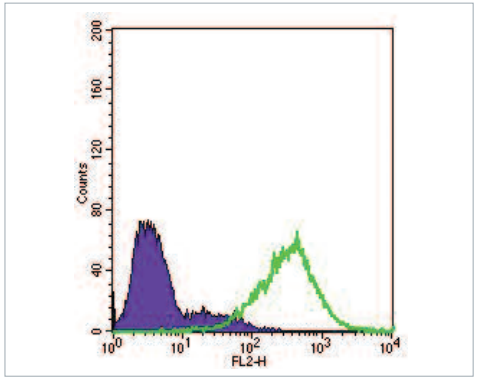


Mouse monoclonal [SN3] to CD24 (ab77219)

Species Reactivity
Human

Conjugate
PE

ab77219 staining human MCF7 cells by flow cytometry. The primary antibody was diluted 1/5 and incubated with sample for 30 minutes at 4°C. The purple profile shows negative control (mouse IgG) vs. green profile ab77219 (CD24).

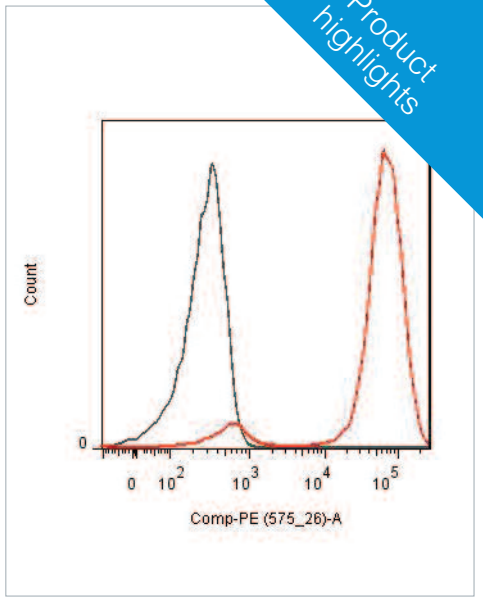


Mouse monoclonal [4H11(APG)] to CD34, prediluted (ab18228)

Species Reactivity
Human

Conjugate
PE

ab18228 staining CD34 in KG-1a cell line by flow cytometry. The Blue peak represents negative control while red peak shows signal with ab18228.

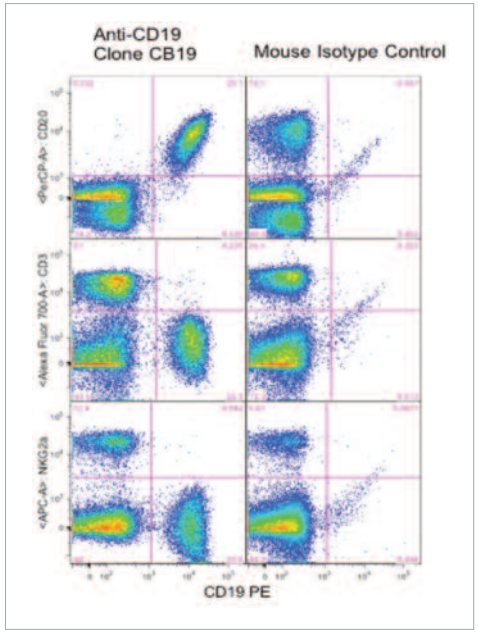


Mouse monoclonal [CB19] to CD19 (ab1168)

Species Reactivity
Human, Chimpanzee, Rhesus Macaque

Conjugate
PE

Whole PBMC cells from Rhesus monkey were fixed with paraformaldehyde. The lymphocyte population was gated based on forward and side scatter properties. The cells within the gate were then analysed on 2 color dot plots with the CD19 (clone CB19) plotted on one axis and other lineage makers plotted on the other axis. CD3 and NKG2a positive populations were negative for CD19 staining. All CD20 positive cells also stained positive for CD19. Additional analysis was carried out to verify that the monocyte and granulocyte populations were negative for staining with this CD19 antibody as expected.



Target name	Alternative name	Cellular expression	Functions	Polyclonal	Monoclonal											Protein	Immunoassay kits
					Unconjugated	CF™405M	OC 515™	FITC	PE	APC	PE/Cy™5	PerCP	APC/Cy™7	PE/Cy™7	Other fluorochrome	Biotin		
CD41	Integrin alpha-IIb, GPalpha IIb, ITGA2B, GP2B	Platelets and megakaryocytes.	Platelet activation and aggregation.	•	•	•		•	•	•		•		•		•	•	
CD42a	Platelet glycoprotein IX, GP9	Platelets and megakaryocytes.	Platelet adhesion and aggregation. Amplifies platelet response to thrombin.	•	•	•	•	•	•	•		•				•	•	
CD42b	Platelet glycoprotein Ib alpha chain, GP1BA	Platelets and megakaryocytes.	Platelet adhesion and aggregation.	•	•	•		•	•	•	•	•				•		
CD42c	Platelet glycoprotein Ib beta chain, GP1BB	Platelets and megakaryocytes.	Platelet adhesion and aggregation.	•														
CD42d	Platelet glycoprotein V, GP5	Platelets and megakaryocytes.	Platelet adhesion and aggregation.	•	•												•	
CD43	Leukosialin, Galactoglycoprotein, Leukocyte sialoglycoprotein, SPN	Leukocytes (except resting B-cells). Low expression in platelets.	Anti-adhesion. Binds CD45 to mediate adhesion.	•	•	•		•	•	•		•				•	•	
CD44	**Epican, HUTCH-I, LHR, PGP-1, ECMR-III**	**Most lymphohematopoietic cells.**	**Leukocyte rolling, homing and aggregation. Adhesion of leukocytes to endothelial cells, stromal cells, and the extracellular matrix. Important in epithelial cell adhesion (cell-cell and cell-matrix) to hyaluronate in basement membranes, and maintaining polar orientation of cells.**	•	•	•		•	•	•	•	•		•		•	•	•
CD45	**Leukocyte common antigen, L-CA, PTPRC**	**Hematopoietic cells (not erythrocytes and platelets).**	**Critical for B- and T-cell receptor mediated activation. Also required for thymic selection.**	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
CD45RA	-	B- and naïve T-cell subsets, monocytes and medullary thymocytes.	Critical for B- and T-cell receptor mediated activation. Also required for thymic selection.		•			•	•	•		•		•		•		
CD45RB	-	T-cell subsets, B-cells, monocytes, macrophages, granulocytes, dendritic cells and natural killer cells.	Critical for B- and T-cell receptor mediated activation.		•			•	•	•	•					•		
CD45RC	-	B-cells, natural killer cells, CD8+ T-cells, CD4+ T-cell subsets, medullary thymocytes, monocytes and dendritic cells.	Critical for B- and T-cell receptor mediated activation.		•			•	•	•		•			•	•		
CD45RO		Activated T-cell subsets, memory B- and T-cell subsets, monocytes, macrophages, granulocytes, cortical thymocytes and dendritic cell subsets.	Critical for B- and T-cell receptor mediated activation.		•			•	•	•	•					•		
CD46	**Membrane cofactor protein, TLX, MCP**	**Ubiquitous except erythrocytes.**	**Co-factor for factor 1 proteolytic cleavage of C3b and C4b. Sets protective barrier threshold against inappropriate complement activation.**	•	•			•	•	•						•	•	
CD47	Integrin associated protein, MER6	Hematopoietic cells, epithelial cells, endothelial cells and mesechymal cells.	Adhesion. A marker of self which binds to SIRP alpha inhibitor receptor on macro and dendritic cells to inhibit phagocytosis. Regulates chemotaxis and activation of leukocytes.	•	•			•		•							•	
CD48	BLAST1, BCM1	Leukocytes.	Cell adhesion and T-cell costimulation.	•	•			•	•	•						•	•	
CD49a	Integrin alpha-1, VLA-1, ITGA1	Activated T-cells, monocytes, melanoma cells and endothelial cells.	Adhesion and embryo development.	•	•			•	•							•	•	
CD49b	Integrin alpha-2, VLA-2 subunit alpha, ITGA2	Platelets, B-cells, monocytes, activated T-cells, epithelial cells, endothelial cells, natural killer cell subsets and megakaryocytes.	Adhesion and platelet aggregation. Receptor for echovirus 1.	•	•	•	•	•	•	•		•	•					
CD49c	Integrin alpha-3, VLA-3 subunit alpha, ITGA3	Most adhesion cell lines. Low expression on B- and T-cells.	Adhesion and signal transduction.	•	•	•	•	•	•	•		•				•		
CD49d	Integrin alpha-4, VLA-4 subunit alpha, ITGA4	B- and T-cells, thymocytes, monocytes, eosinophils, basophils, natural killer cells, mast cells, dendritic cells and erythroblastic precursors.	Adhesion, cell migration, homing and activation.	•	•			•	•	•		•				•		
CD49e	Integrin alpha-5, VLA-5, ITGA5	Thymocytes, T-cells, monocytes, platelets, early and activated B-cells, endothelial cells and epithelial cells.	Adhesion, regulation of cell survival and apoptosis.	•	•			•	•			•				•	•	
CD49f	Integrin alpha-6, VLA-6, ITGA6	Memory B-cells, T-cells, thymocytes, monocytes, platelets, megakaryocytes, epithelial cells, endothelial cells and cytotrophoblasts.	Embryogenesis, adhesion and cell migration.	•	•			•	•							•		
CD50	ICAM3	Leukocytes, thymocytes, Langerhans cells, endothelial cells, B- and T-cells, granulocytes and monocytes.	Adhesion and costimulation.	•	•			•								•	•	•
CD51	Integrin alpha chain V, ITGAV, MSK8	Platelets, activated T-cells, endothelial cells, osteoblasts, melanoma cells and megakaryocytes.	Adhesion and signal transduction.	•	•			•	•						•	•	•	
CD52	Campath-1, HE5	Thymocytes, lymphocytes (not plasma cells), monocytes, macrophages and epithelial cells.	Glycosylphosphatidylinositol (GPI) anchored antigen which may play a role in carrying and orienting carbohydrate.		•	•		•	•	•		•						
CD53	Tetraspanin-25, MOX44	Leukocytes, dendritic cells, osteoblasts and osteoclasts.	Signal transduction.		•	•		•	•	•		•					•	
CD54	ICAM1	Endothelial cells, monocytes, hematopoietic and non-hematopoietic cells. Low expression on resting lymphocytes, upregulated on activation.	Extravasation of leukocytes from blood vessels. Regulates T-cell activation.	•	•			•	•	•		•			•	•	•	•
CD55	**Complement decay accelerating factor, DAF**	**Epithelial cells and all cells that are in close contact with plasma complement proteins.**	**Regulates complement activation. Ligand or protective molecule in fertilization. Signal transduction.**	•	•			•	•		•					•	•	

CD56	NCAM1	Neural tissues, natural killer cells, T-cell subsets, small cell lung carcinoma.	Homophilic and heterophilic adhesion.	•	•			•	•	•	•	•			•	•	•	•
CD57	Human natural killer 1, HNK1, LEU7	Natural killer cell subsets, T-cell subsets and monocytes.	Adhesion molecule.	•	•			•	•		•					•		
CD58	LFA3	Leukocytes, erythrocytes, epithelial cells, endothelial cells, fibroblasts, hematopoietic and non-hematopoietic cells.	APC-T-cell adhesion. Killer target cell interaction. Costimulation of CD58+ and CD2+ T-cells.	•	•	•		•	•	•		•				•		
CD59	Protectin, MAC-inhibitory protein	Hematopoietic and non-hematopoietic cells.	Prevents complement polymerization. Protects cells from complement mediated lysis.	•	•	•		•	•	•						•	•	
CD60a	CDw60, GD3	Subsets of CD4+ and CD8+ peripheral T-cells, platelets and monocytes.	The CD60 family are oligosaccharides present on gangliosides and are involved in co-stimulation of T-cells.		•*													
CD60b	UM4D4, 9-O-acetyl-GD3	Subsets of CD4+ and CD8+ peripheral T-cells, platelets and monocytes.	The CD60 family are oligosaccharides present on gangliosides and are involved in co-stimulation of T-cells.		•*													
CD60c	7-O-acetyl-GD3	Subsets of CD4+ and CD8+ peripheral T-cells, platelets and monocytes.	The CD60 family are oligosaccharides present on gangliosides and are involved in co-stimulation of T-cells.		•*													
CD61	Integrin beta-3, ITGB3, GP3A	With CD41 on platelets, with CD51 on macrophages, endothelial cells, fibroblasts, megakaryocytes, osteoclasts, mast cells and macrophages.	Mediates cell adhesion to diverse matrix proteins.	•	•			•	•							•		
CD62E	E-selectin, SELE, ELAM1	Activated endothelial cells.	Leukocyte rolling and adhesion to activated endothelium at inflammatory sites. Tumor cell adhesion and angiogenesis.	•	•			•	•	•	•					•	•	•
CD62L	**L-selectin, SELL, LAM1**	**B- and T-cell subsets, monocytes, granulocytes, natural killer cells and thymocytes.**	**Leukocyte rolling and homing on activated endothelium.**	•	•			•	•	•	•		•	•		•	•	•
CD62P	P-selectin, SELP, LECAM3	Activated platelets, endothelial cells and megakaryocytes.	Leukocyte tethering and rolling on the surface of activated endothelial cells.	•	•	•		•	•	•		•				•	•	•
CD63	LAMP-3, Granulophysin, MLA1	Activated platelets, monocytes, macrophages, granulocytes and endothelial cells.	Translocated to cell surface on activation of platelets, endothelial cells and granulocytes. Associated with the early stages of melanoma tumor progression (in regulation of motility and adhesion of melanoma cells).	•	•	•	•	•	•	•		•			•	•	•	
CD64	IgG Fc receptor I, FCGR1A	Monocytes and macrophages.	Binds to the Fc region of IgG with high affinity.	•	•			•	•	•						•	•	
CD65	VIM2	Granulocytes and myeloid cells. Low expression on monocytes.	Adhesive carbohydrate.															
CD66a	CEACAM1, Biliary glycoprotein 1	Mature granulocytes, epithelial cells, hematopoietic tissues, neutrophils, colon and liver.	Neutrophil activation, homophilic and heterophilic adhesion.	•	•												•	•
CD66b	CEACAM8, CD67, CGM6	Granulocytes.	Cell adhesion and neutrophil activation.	•	•			•									•	
CD66c	CEACAM6, NCA	Neutrophils, epithelial cells and colon carcinoma.	Cell adhesion and neutrophil activation.	•	•												•	
CD66d	CEACAM3, CGM1	Neutrophils.	Cell adhesion and neutrophil activation.	•													•	
CD66e	CEACAM5, CEA	Adult colon epithelial cells and colon carcinoma.	Homophilic and heterophilic adhesion. May play a role in the metastasis of cancer cells.	•	•			•	•								•	•
CD66f	Pregnancy-specific beta-1-glycoprotein 1, PSG1, PSBG1	Epithelial cells, placental syncytiotrophoblasts and fetal liver.	Immune regulation and protection of fetus from maternal immune system.		•												•	
CD67	See CD66b	-	-		•												•	
CD68	Macrosialin, KP1	Monocytes, macrophages, neutrophils, basophils, dendritic cells and myeloid progenitors.	Possibly has a role in phagocytic activities of tissue macrophages, both in intracellular lysosomal metabolism and extracellular cell-cell and cell-pathogen interactions. Binds to tissue- and organ-specific lectins or selectins, allowing homing of macrophage subsets to particular sites. May allow macrophages to crawl over selectin bearing substrates or other cells.	•	•			•								•	•	
CD69	Activation inducer molecule, AIM, CLEC2C, EA1	Activated leukocytes, natural killer cells, thymocyte subsets, platelets, Langerhans cells and activated macrophages.	Signal transmitting receptor. Involved in early events of T-cell, natural killer cell, monocyte and platelet activation.	•	•			•	•	•	•	•		•		•	•	
CD70	CD27 ligand, CD27L	Activated B- and T-cells and macrophages.	Induces proliferation of costimulated T-cells. Enhances the generation of cytotoxic T-cells and contributes to T-cell activation. This cytokine is also reported to play a role in regulating B-cell activation, cytotoxic function of natural killer cells and immunoglobulin synthesis.	•	•			•	•							•	•	
CD71	Transferrin receptor protein 1, TFRC	Proliferating cells, reticulocytes, erythroid precursors and activated leukocytes.	Controls iron uptake during cell proliferation.	•	•	•		•	•	•	•	•			•	•	•	
CD72	Lyb-2, Ly-19, Ly-32	B-cells (but not plasma B-cells), macrophages, follicular dendritic cells, epithelial cells and endothelial cells.	B-cell activation and proliferation.	•	•			•	•							•		
CD73	5'-nucleotidase, NT5E	B- and T-cell subsets, dendritic reticulum cells, epithelial cells and endothelial cells.	Nucleotidase. Dephosphorylates nucleotides to permit uptake of nucleosides.	•	•				•	•		•				•	•	
CD74	LN2, Ii, DHLAG	B-cells, activated T-cells, macrophages, Langerhans cells, dendritic cells, endothelial cells and epithelial cells.	Intracellular sorting of MHC class II molecules.	•	•			•	•							•	•	
CD75	ST6GAL1, Sialyltransferase 1	B- and T-cell subsets and erythrocytes.	Catalyzes the transfer of sialic acid from CMP sialic acid to galactose-containing substrates. Cell adhesion.	•	•												•	

Key *: against pan-CD60 ■: Featured product

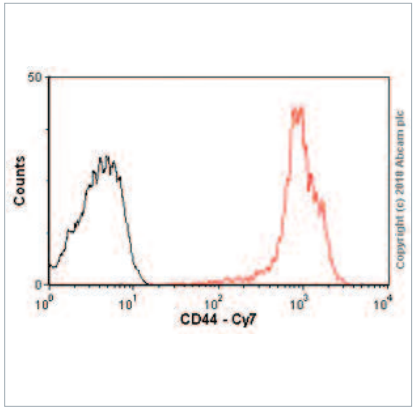
Target name	Alternative name	Cellular expression	Functions	Polyclonal	Monoclonal											Protein	Immunoassay kits
					Unconjugated	CF™405M	OC 515™	FITC	PE	APC	PE/Cy™5	PerCP	APC/Cy™7	PE/Cy™7	Other fluorochrome	Biotin		
CD75s	-	B- and T-cell subsets.	CD75s differentiation antigens are cell-surface carbohydrate determinants generated by CD75.															
CD77	Globotriaosylceramide , BLA	Germinal centre B-cells and macrophages. High expression in Burkitt's lymphocytes.	Induces apoptosis.		•													
CD79a	MB1, IGA	B-cells.	Subunit of B-cell antigen receptor (CD79a+CD79b).Signal transduction.	•	•				•	•						•	•	
CD79b	B29, IGB	B-cells.	Subunit of B-cell antigen receptor (CD79a+CD79b).Signal transduction.		•			•	•	•	•					•	•	
CD80	B7-1	Activated B- and T-cells, macrophages and dendritic cells.	Costimulation of T-cell activation and proliferation. Has a critical role in autoimmune, humoral, and transplant responses.	•	•			•	•	•	•	•				•	•	
CD81	TAPA1, Tetraspanin-28	B- and T-cells, natural killer cells, monocytes, thymocytes, dendritic cells, endothelial cells and fibroblasts.	Signal transduction. Facilitates complement recognition.	•	•			•	•							•		
CD82	KAI1, Tetraspanin-27	Leukocytes (upregulated on activation) and platelets.	Signal transduction.	•	•				•								•	
CD83	HB15	Activated B- and T-cells, circulating dendritic cells and Langerhans cells.	Regulates immune responses.	•	•			•	•							•	•	
CD84	SLAM5	Mature B-cells, T-cell subsets, monocytes, macrophages, platelets and thymocytes.	Homophilic adhesion molecule. Enhances T-cell activation and cytokine production.	•	•			•	•	•					•		•	
CD85a	LILRB3, ILT5, LIR3	Monocytes, macrophages, myeloid cells, some T-cells, natural killer cells, basophils, eosinophils and B-cells.	Inhibitory receptor for MHC class I molecules. Involved in natural killer cell mediated cytotoxicity.	•	•			•	•									
CD85b	LILRA6, ILT8	Monocytes, macrophages, T-cell and natural killer cell subsets, dendritic cells and B-cells.	Involved in natural killer cell mediated cytotoxicity.															
CD85c	LILRB5, LIR8	Natural killer cells.	May act as receptor for class I MHC antigens.	•														
CD85d	LILRB2, ILT4, LIR2, MIR10	Monocytes, macrophages, B- and T-cells, dendritic cells, eosinophils and natural killer cells.	Receptor for class I MHC antigens. Down regulates the immune response and involved in the development of tolerance.	•	•			•	•								•	
CD85e	LILRA3, ILT6, LIR4	B-cells, natural killer cells, peripheral blood monocytes and lung.	May act as soluble receptor for class I MHC antigens.	•	•													
CD85f	LILRA5, ILT11, LIR9	Hematopoietic cells, natural killer cells, B- and T-cells.	May play a role in triggering innate immune responses.	•														
CD85g	LILRA4, ILT7	Eosinophils, neutrophils, plasmacytoid dendritic cells and monocytes.	May act as receptor for class I MHC antigens.	•	•				•							•		
CD85h	LILRA2, ILT1, LIR7	Basophils, myeloid cells and plasmacytoid dendritic cells.	May act as receptor for class I MHC antigens.	•	•				•								•	
CD85i	LILRA1, LIR6	Monocytes and B-cells.	May act as receptor for class I MHC antigens.	•														
CD85j	LILRB1, ILT2, LIR1	B-cells, monocytes and dendritic cells.	Receptor for class I MHC antigens. Transduces negative signals that prevent killing of MHC class I expressing cells. Receptor for CMV UL18 protein.	•	•											•	•	
CD85k	LILRB4, ILT3, LIR5	Monocytes, macrophages, dendritic cells, endothelial cells, natural killer cells and B-cells.	Receptor for class I MHC antigens. Involved in downregulation of immune response and development of tolerance, including transplants.	•														
CD86	CD28LG2, B7-2	Monocytes, activated B- and T-cells and endothelial cells.	Costimulation of T-cell activation and proliferation.	•	•			•	•	•	•	•		•	•	•	•	•
CD87	UPAR, PLAUR, MO3	Granulocytes, monocytes, natural killer cells, T-cells, endothelial cells, fibroblasts and hepatocytes.	Cell chemotaxis and adhesion.	•	•												•	•
CD88	C5R1, C5AR	Granulocytes, monocytes, dendritic cells and astrocytes.	Granulocyte activation. Stimulates chemotaxis, granule enzyme release and superoxide anion production.	•	•				•							•		
CD89	FCAR	Monocytes, macrophages, granulocytes, neutrophils, B- and T-cell subsets.	IgA Fc receptor (binds IgA and eliminates IgA coated targets). Induces phagocytosis, degranulation, respiratory burst and killing of micro-organisms.	•	•			•	•								•	
CD90	THY1	Hematopoietic cells, neuronal cells, fibroblasts, stromal cells and activated endothelial cells.	Costimulation of lymphocytes. Possible inhibition of stem cell and neuron differentiation.	•	•			•	•	•	•					•	•	
CD91	LRP1, A2MR, APOER	Monocytes, macrophages, neuronal cells and fibroblasts.	Large scavenger receptor that mediates the uptake and degradation of various ligands.	•	•													
CD92	CTL1, SLC44A1	B-cells, most T-cells, monocytes, natural killer cells, neutrophils, fibroblasts and endothelial cells.	Intermediate-affinity, sodium independent choline transporter.	•	•			•										
CD93	C1qR, C1QR1, MXRA4	Monocytes, granulocytes, endothelial cells and neutrophils.	May mediate the enhancement of phagocytosis in monocytes and macrophages upon interaction with soluble defense collagens. May play a role in intercellular adhesion.		•					•				•		•	•	
CD94	KLRD1, KP43	Natural killer cells and T-cell subsets.	Inhibition of natural killer cell function. Induces cytolytic activity and cytokine production.	•	•			•	•							•	•	
CD95	Apoptosis antigen ligand, FASLG, APTL, TNFSF6	Monocytes, neutrophils, lymphocytes and fibroblasts.	Induces apoptosis.	•	•			•	•	•	•					•	•	•

Mouse monoclonal [F10-44-2] to CD44 (ab46793)

Species Reactivity
Human

Conjugate
PE/Cy7®

Overlay histogram showing peripheral blood lymphocytes stained with ab46793 (red line). The cells were incubated with the antibody (ab46793, 1/100) for 30 min at 4ºC. Isotype control antibody (black line) was mouse IgG2a [ICIGG2A] (ab91361, 2 µg/1x10^6 cells) with secondary antibody DyLight® 649 goat anti-mouse IgG (H&L) (ab96882) at 1/200 dilution for 30 min at 4ºC. Acquisition of >5,000 events was performed by gating on peripheral blood lymphocytes.

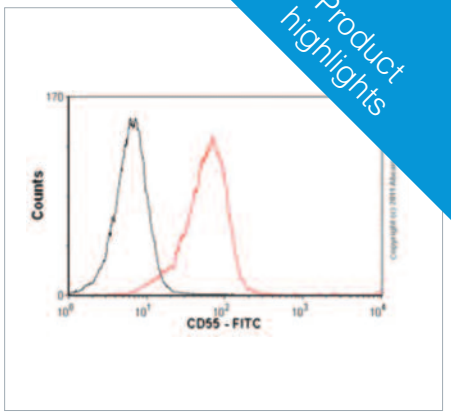


Mouse monoclonal [143-30] to CD55 (ab25634)

Species Reactivity
Human, Pig

Conjugate
FITC

Overlay histogram showing peripheral blood lymphocytes stained with ab25634 (red line). The cells were incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab25634, 0.5 µg/1x10^6 cells) for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 FITC (2 µg/1x10^6 cells) for 30 min at 22°C. Acquisition of >5,000 events was performed.

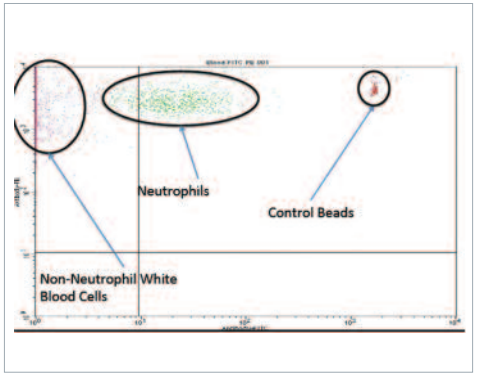


Mouse monoclonal [GA90] to CD45 (ab1176)

Species Reactivity
Human

Conjugate
PE

ab1176 detecting CD45 in human white blood cells by flow cytometry. Cells were fixed in formaldehyde. The primary antibody was incubated with the sample for 1 hour at 25°C.

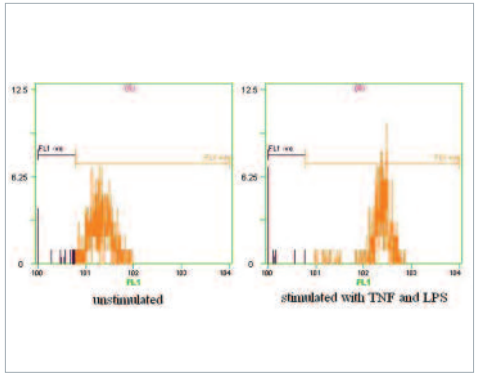


Mouse monoclonal [1H3] to CD62L (ab52068)

Species Reactivity
Human

Conjugate
FITC

ab52068 staining human granulocytes in whole blood by flow cytometry. Cells were treated with Optilyse C (containing 1.5 % paraformaldehyde) solution and gated by electronic volume and side scatter. The primary antibody was diluted 1/10 and incubated with sample for 30 minutes at 21°C.

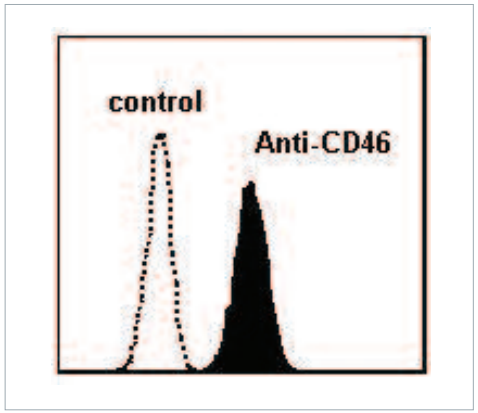


Mouse monoclonal [MEM-258] to CD46 (ab28068)

Species Reactivity
Human, Cow

Conjugate
FITC

Overlay histogram of ab28068 detecting CD46 in human Jurkat T cells by flow cytometry. Cells were prepared to 5x10^5 in 1% FBS, 0.05% sodium azide in PBS. The primary antibody was used neat and incubated with the sample for 15 minutes at 22°C. The shaded histogram represents CD46 staining and the unshaded histogram represents the control.



Mouse monoclonal [B-S23] to CD253 (ab47230)

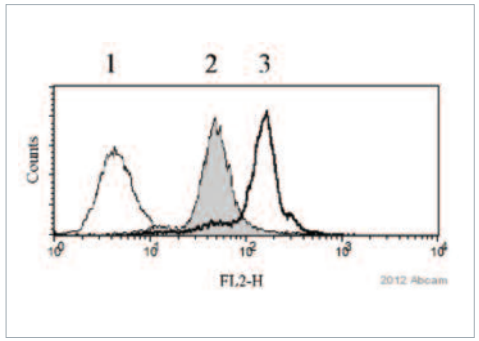
Species Reactivity
Human

Conjugate
PE

ab47230 staining TRAIL in human peripheral blood monocytes by flow cytometry.

Cells were fixed in paraformaldehyde, permeabilized using 0.1% saponin/ PBS.

ab47230 was used at a 1/10 dilution.



1 = non stimulated
2 = INF gamma stimulated 100U/ml
3 = LPS stimulated 100ng/ml

Target name	Alternative name	Cellular expression	Functions	Polyclonal	Monoclonal											Protein	Immunoassay kits
					Unconjugated	CF™405M	OC 515™	FITC	PE	APC	PE/Cy™5	PerCP	APC/Cy™7	PE/Cy™7	Other fluorochrome	Biotin		
CD96	Tactile	Low levels on peripheral T-cells. Strongly up-regulated after activation.	Involved in adhesive interactions of activated T-cells and natural killer cells during the late phase of the immune response. Promotes natural killer cell target adhesion by interacting with Poliovirus receptor present on target cells.	•	•				•									
CD97	-	Granulocytes and monocytes. Low expression in lymphocytes, macrophages and dendritic cells.	Neutrophil migration. May be involved in cell adhesion and signaling processes after leukocyte activation.	•	•			•	•								•	
CD98	4F2hc, SLC3A2, MDU1	Monocytes, lymphocytes natural killer cells and granulocytes.	Cell activation and cell aggregation.	•	•	•		•	•	•		•				•	•	
CD99	MIC2	Lymphocytes, natural killer cells, monocytes, granulocytes, endothelial cells, epithelial cells, some tumor cells and thymocytes.	Leukocyte migration, T-cell activation and cell adhesion.	•	•	•		•	•	•		•					•	
CD100	Semaphorin 4D, SEMA4D	Leukocytes and oligodendrocytes.	Impairs monocyte migration. B- and T- activation. B-cell:T-cell interaction. T-cell:dendritic cell interaction.	•	•				•								•	
CD101	IGSF2, EWI101	Monocytes, granulocytes, dendritic cells, activated T-cells and Langerhans cells.	Inhibits T-cell activation and proliferation.		•			•	•									
CD102	ICAM2	Resting lymphocytes, monocytes, platelets and vascular endothelial cells.	Adhesion, costimulation and lymphocyte recirculation.	•	•			•	•							•	•	
CD103	Integrin alpha E, ITGAE	Intra-epithelial lymphocytes, some peripheral blood lymphocytes and activated lymphocytes.	Lymphocyte retention. Receptor for E-cadherin.	•	•			•	•	•						•	•	
CD104	Integrin beta 4, ITGB4	Epithelial cells, endothelial cells, Schwann cells and keratinocytes.	Adhesion receptor (for laminins) in normal epithelia. Migration and tumor metastasis.	•	•			•	•							•	•	
CD105	Endoglin, ENG, END	Endothelial cells, mesenchymal stem cells, erythroid precursors, activated monocytes and macrophages.	Angiogenesis. Regulatory component of TGF-beta receptor complex. Modulates cellular response to TGF beta 1.	•	•	•	•	•	•	•		•			•	•	•	•
CD106	VCAM1, L1CAM	Activated endothelial cells and follicular dendritic cells.	Leukocyte adhesion. Transmigration and costimulation of T-cells.	•	•			•	•	•						•	•	•
CD107a	LAMP1	Activated platelets, activated T-cells, activated endothelial cells and activated granulocytes.	Promotes adhesion of human PBMCs to vascular endothelium. Possibly involved in the adhesion of PBMCs to the site of inflammation.	•	•			•	•	•	•				•	•	•	
CD107b	LAMP2	Activated platelets, activated T-cells and activated endothelial cells.	May be involved in leukocyte adhesion. Important in autophagy. Implicated in tumor cell metastasis.	•	•			•	•	•	•					•	•	
CD108	Semaphorin 7A, SEMA7A	Activated T-cells, erythrocytes, fibroblasts and monocytes.	Monocyte activator. Negative regulator of T-cell responses. Stimulates axon growth and guidance during development.	•	•			•										
CD109	CPAMD7	Activated T-cells, activated platelets, subset of CD34+ cells and endothelial cells.	Modulates negatively TGFB1 signaling in keratinocytes.	•	•				•									
CD110	TPOR, MPL	Subset of stem cells and cells of megakaryocytic lineage as well as platelets.	Binding to thrombopoietin induces megakaryocyte proliferation and differentiation and prevents apoptosis.	•	•												•	
CD111	Nectin1, PVRL1, HVEC	Subset of stem cells, macrophages and neutrophils.	Entry mediator for several herpes viruses (HSV1, HSV2, PRV, BHV1). Believed to be involved in cell adhesion mechanisms.	•													•	
CD112	Nectin2, PVRL2, HVEB	Subset of stem cells, neutrophils, monocytes, subset of CD34+ cells, endothelial cells, epithelial cells and myeloid cells.	Intracellular adhesion, component of adherins junctions. Receptor for herpes simplex virus.	•	•												•	
CD113	Nectin3, PVRL3	Testis and placental tissues.	Adhesion molecule that interacts with afadin which connects nectin to the actin cytoskeleton.	•													•	
CD114	GCSFR, CSF3R	Myeloid progenitor cells, endothelial cells and trophoblastic cells.	Myeloid cell proliferation and differentiation.	•	•				•								•	
CD115	CSF1R, FMS	Monocytes, macrophages, monocytic progenitors, neuronal cells and osteoclasts.	Monocytic cell proliferation and differentiation.	•	•				•							•	•	
CD116	GMR-alpha, CSF2RA	Monocytes, macrophages, granulocytes, dendritic cells, endothelial cells and eosinophils.	Myeloid cell hematopoiesis and differentiation.	•	•			•	•							•	•	•
CD117	c-kit, KIT	Hematopoietic stem cells and progenitors.	Crucial for development of gonadal and pigment stem cells.	•	•			•	•	•	•		•	•	•	•	•	•
CD118	LIFR	Epithelium cells.	Regulates a variety of biological responses including cell proliferation, apoptosis, chemotaxis and adhesion.		•												•	
CD119	IFNGR1	Lymphocytes, natural killer cells, monocytes, macrophages, granulocytes, endothelial cells and epithelial cells.	Receptor for interferon gamma. Role in host defense and immunopathological processes.	•	•				•								•	
CD120a	TNF Receptor I, TNFRSF1A	Hematopoietic and non-hematopoietic cells and epithelial cells.	Receptor for TNF. Involved in cell differentiation, apoptosis and necrosis. Contributes to the induction of non-cytocidal TNF effects, including anti-viral state and activation of the acid sphingomyelinase.	•	•			•									•	•
CD120b	TNF Receptor II, TNFRSF1B	Hematopoietic and non-hematopoietic cells and epithelial cells.	Receptor for TNF. Involved in cell differentiation, apoptosis and necrosis.	•	•			•								•	•	•
CD121a	IL-1R type I, IL1R1	Fibroblasts, lymphocytes, monocytes, macrophages, granulocytes, dendritic cells. epithelial cells, and neural cells.	Receptor for IL1A, IL1B and IL1RN. Mediates IL1 signaling.	•	•											•	•	

CD121b	IL-1R type II, IL1R2	B-cells, monocytes, macrophages, some T-cells and keratinocytes.	Non-signaling receptor for IL1A, IL1B and IL1RN. Mediates negative signaling of IL1.	•	•								•	
CD122	IL2RB	Natural killer cells, resting T-cells, B-cell subsets and monocytes.	IL2 and IL15 receptor beta chain signaling.	•	•								•	
CD123	IL3RA	Basophils, eosinophils, hematopoietic progenitors, macrophages, dendritic cells, endothelial cells and a small subset of lymphocytes.	Receptor for IL3. Associates with the GM-CSF receptor.	•	•			•	•	•			•	•	
CD124	IL4RA, IL4R	Endothelial cells, epithelial cells, fibroblasts, mature B- and T-cells. Low expression on leukocytes and progenitors.	Receptor for IL4 and IL13.	•	•								•	
CD125	IL5RA, IL5R	Eosinophils, basophils, activated B-cells and mast cells.	Receptor for IL5.	•	•								•	
CD126	IL6R, gp80	Activated B- and plasma cells, T-cells, monocytes, epithelial cells and fibroblasts.	Receptor for IL6.	•	•			•					•	•
CD127	IL7R	B-cell precursors, mature T-cells, thymocytes and monocytes.	Receptor for IL7.	•	•			•					•	
CD128	See CD181 and CD182.	-	-											
CD129	IL9R	Hematopoietic cells including T-cells, neutrophils, mast cells and macrophages.	Receptor for IL9. Supports erythroid colony formation and synergizes with IL4 in the production of IgE and IgG.	•	•								•	
CD130	IL6ST, gp130	T-cells, activated B-cells, plasma cells, monocytes and endothelial cells.	Transmits activities of IL6, IL11, LIF and CNF.	•	•			•					•	•
CD131	IL3RB, CSF2RB	Monocytes, granulocytes, early B-cells and hematopoietic stem cells.	Component of the high affinity IL3, GM-CSF and IL5 receptors. Crucial role in growth / activation of eosinophils and in the inflammatory response.	•	•				•				•	
CD132	IL2RG	Variety of leukocytes including B- and T-cells, natural killer cells, monocytes, macrophages and neutrophils.	Forms complexes with other cell surface proteins including CD25, CD122, CD124, CD127 and others. Complexes with other cell surface proteins to form receptors for the cytokines IL2, IL4, IL7, IL9, and IL15. Acting through the CD132 containing complexes, these cytokines regulate lymphocyte development and activation.	•	•								•	
CD133	Prominin-1, PROM1, AC133	Hematopoietic stem cell subsets, epithelial, endothelial and neural cell precursors.	Binds cholesterol in cholesterol-containing plasma membrane microdomains. Involved in regulation of MAPK and Akt signaling pathways. May play a role in apical plasma membrane organization of epithelial cells.											
CD134	TNFRSF4, OX40L receptor	Activated CD4+ and CD8+ T-cells, regulatory T-cells and B-cells.	T-cell activation, proliferation and differentiation, apoptosis and cell adhesion.	•	•			•	•				•	•	•
CD135	FLT3, FLK2	Multipotential, myelocytic monocytes and primitive B-cell progenitors.	Receptor tyrosine kinase. Growth factor receptor. Binds FLT3 ligand to promote the growth and differentiation of primitive hematopoietic cells.	•	•				•				•	•	
CD136	RON, PTK8	Expression documented in many normal human tissues, including normal colon, mouth, prostate and testis, as well as cancerous colon, prostate, stomach, and uterus.	Mediates activity of macrophage-stimulating protein (MSP) which regulates cell adhesion, motility, growth, and survival. Implicated in the progression of several epithelial cancers.	•	•								•	
CD137	TNFRSF9, ILA	Activated B- and T-cells, follicular dendritic cells, monocytes and epithelial cells.	Costimulation of T-cell activation. Regulates T-cell-dependent immune responses.	•	•			•	•				•	•	•
CD138	Syndecan, SDC	Plasma cells, pre-B-cells, epithelial cells, neural cells and breast cancer cells.	Expected to play a role in cell adhesion.	•	•			•	•		•		•	•	•
CD139		Germinal center B cells, follicular dendritic cells and follicular mantle.	Unknown.											
CD140a	PDGFR-alpha, PDGFRA	Fibroblasts, mesenchymal cells, platelets, glial cells and chondrocytes.	Cell proliferation, differentiation and survival.	•	•				•	•			•	•	
CD140b	PDGFR-beta, PDGFRB	Fibroblasts, mesenchymal cells, platelets, glial cells and chondrocytes.	Cell proliferation, differentiation and survival.	•	•				•	•			•	•	•
CD141	Thrombomodulin, THBD	Monocytes, neutrophils, platelets and endothelial cells.	Activation of protein C and initiation of protein C anti-coagulant pathway.	•	•			•						•	•
CD142	Tissue factor, F3	Monocytes, epithelial cells, astrocytes, Schwann cells and endothelial cells.	Initiates blood clotting.	•	•								•	•	•
CD143	Angiotensin Converting Enzyme 1, ACE	Endothelial cells, epithelial cells, dendritic cells, neuronal cells and activated macrophages.	Converts angiotensin I to angiotensin II by release of terminal His-Leu, which results in an increase of the vasoconstrictor activity of angiotensin.	•	•			•	•				•	•	•
CD144	VE cadherin, Cadherin-5	Endothelial cells and stem cell subsets.	Cell adhesion.	•	•									•	
CD146	MCAM, MUC18	Endothelial cells, follicular dendritic cells, activated T-cells and smooth muscle.	Cell adhesion. Involved in heterophilic cell to cell interactions.	•	•			•	•				•	•	
CD147	Basigin, BSG	Leukocytes, erythrocytes, platelets and endothelial cells.	Cell adhesion and T-cell activation.	•	•	•		•	•	•			•	•	•
CD148	DEP1, PTPRJ	Granulocytes, monocytes, dendritic cells, platelets, B- and T-cells.	Tyrosine phosphatase cell signaling, cell growth and differentiation, mitotic cycle and oncogenic transformation.	•	•			•	•					•	
CD150	SLAM, SLAMF1, IPO-3	T-cells (upregulated on activation), regulatory T-cells, B-cells, dendritic cells and endothelial cells.	Costimulation of T-cells and B-cells.	•	•			•	•	•				•	
CD151	GP27, SFA-1, PETA-3	Platelets, megakaryocytes, endothelial cells and epithelial cells.	Essential for proper assembly of the glomerular and tubular basement membranes in kidney.	•	•			•	•						
CD152	CTLA-4	Activated T-cells and activated B-cells.	Negative regulation of T-cell activation. Contributes to the maintenance of peripheral T-cell tolerance to self antigens. It exerts its major effects on T-cell immune responses via regulation of the cell cycle.	•	•			•	•			•	•	•	

Target name	Alternative name	Cellular expression	Functions	Polyclonal	Monoclonal											Protein	Immunoassay kits
					Unconjugated	CF™405M	OC 515™	FITC	PE	APC	PE/Cy™5	PerCP	APC/Cy™7	PE/Cy™7	Other fluorochrome	Biotin		
CD153	CD30 ligand	Activated T-cells, activated macrophages, neutrophils and B-cells.	Binds to CD30 and induces proliferation of T-cells.	•	•			•	•								•	•
CD154	CD40 ligand, Gp39, TRAP	Activated CD4+ T-cells.	Mediates B-cell proliferation and IgE production in the presence of IL4. Also involved in antibody class switching, modulation of apoptosis in the germinal center through interaction with B-cells expressing CD40 and activation of CD4+ T-cells.	•	•			•	•	•						•	•	•
CD155	Poliovirus Receptor, NECL-5	Monocytes, macrophages, thymocytes and CNS neurons.	Mediates natural killer cell adhesion and triggers their effector functions. Plays a role in mediating tumor cell invasion and migration, receptor for polio virus attachment.	•	•					•						•	•	
CD156a	ADAM8	Monocytes and neutrophils.	Possible involvement in extravasation of leukocytes.	•	•												•	
CD156b	ADAM17, TACE	Ubiquitously expressed.	Cleaves transmembrane form of TNF-α to generate the soluble active form.	•	•												•	
CD156c	ADAM10, CDw156	Spleen, lymph nodes, thymus, peripheral blood leukocytes, bone marrow, chondrocytes and fetal liver.	Metalloprotease activity, cell-cell and cell-matrix interaction, responsible for the proteolytic release of several cell-surface proteins such as the HER2 receptor.	•	•			•									•	
CD157	BST-1	Monocytes, neutrophils and endothelial cells.	Synthesis of cyclic ADP-ribose and putative involvement in pre-B-cell growth.	•	•			•	•	•		•						
CD158a	NKAT-1	Natural killer cells and T-cell subsets.	Receptor on natural killer cells for HLA-C alleles. Inhibits the activity of natural killer cells thus preventing cell lysis.	•	•												•	
CD158b1	NKAT-6	Natural killer cells and T-cell subsets.	Receptor on natural killer cells for HLA-Cw1, 3, 7, and 8 allotypes. Inhibits the activity of natural killer cells thus preventing cell lysis.	•														
CD158b2	NKAT-2	Natural killer cells and T-cell subsets.	Receptor on natural killer cells for HLA-C alleles (HLA-Cw1, HLA-Cw3 and HLA-Cw7). Inhibits the activity of natural killer cells thus preventing cell lysis.		•												•	
CD158c	KIR3DP1	Natural killer cells.	Secreted to the extracellular medium and involved in the suppression of natural killer cell-mediated cytotoxicity.															
CD158d	KIR2DL4, KIR-103AS	Natural killer cells.	Receptor on natural killer cells for HLA-C alleles. Inhibits the activity of natural killer cells thus preventing cell lysis.	•	•				•								•	
CD158e	NKAT-3, KIR3DL1	Natural killer cells.	Receptor on natural killer cells for HLA Bw4 allele. Inhibits the activity of natural killer cells thus preventing cell lysis.	•	•												•	
CD158f1	KIR2DL5A	Natural killer cells.	Receptor on natural killer cells for HLA-C alleles. Inhibits the activity of natural killer cells thus preventing cell lysis.	•														
CD158f2	KIR2DL5B	Natural killer cells.	Receptor on natural killer cells for HLA-C alleles. Inhibits the activity of natural killer cells thus preventing cell lysis.	•														
CD158g	NKAT-9, KIR2DS5	Natural killer cells.	Receptor on natural killer cells for HLA-C alleles. Does not inhibit the activity of natural killer cells.	•														
CD158h	KIR2DS1	Natural killer cells.	Receptor on natural killer cells for HLA-C alleles. Does not inhibit the activity of natural killer cells.	•														
CD158i	NKAT-8, KIR2DS4	Natural killer cells.	Receptor on natural killer cells for HLA-C alleles. Does not inhibit the activity of natural killer cells.	•	•												•	
CD158j	NKAT-5, KIR2DS2	Natural killer cells.	Receptor on natural killer cells for HLA-C alleles. Does not inhibit the activity of natural killer cells.	•														
CD158k	NKAT-4, KIRDL2	Natural killer cells.	Receptor on natural killer cells for HLA-A alleles. Inhibits the activity of natural killer cells thus preventing cell lysis.	•														
CD158z	KIR3DL3	Natural killer cells.	Receptor on natural killer cells. May inhibit the activity of natural killer cells thus preventing cell lysis.															
CD159a	NKG2A, KLRC1	Natural killer cells and γδ T-cells.	Negative regulation of natural killer cell activation. Implicated in the recognition of the MHC class I HLA-E molecules by natural killer cells and some cytotoxic T-cells.	•	•													
CD159c	NKG2C, KLRC2	Natural killer cells and CD8+ T-cells.	Plays a role as a receptor for the recognition of MHC class I HLA-E molecules by natural killer cells and some cytotoxic T-cells.	•	•												•	
CD160	BY55	Peripheral blood natural killer cells and CD8+ T-cells with cytolytic effector activity.	Receptor showing broad specificity for both classical and non-classical MHC class I molecules.	•	•			•	•							•		
CD161	NKR-P1A, KLRB1	Intestinal epithelium and liver natural killer cells and peripheral blood T-cells.	Inhibits natural killer cell mediated cytotoxicity. Induces immature thymocyte proliferation.	•	•			•	•							•	•	

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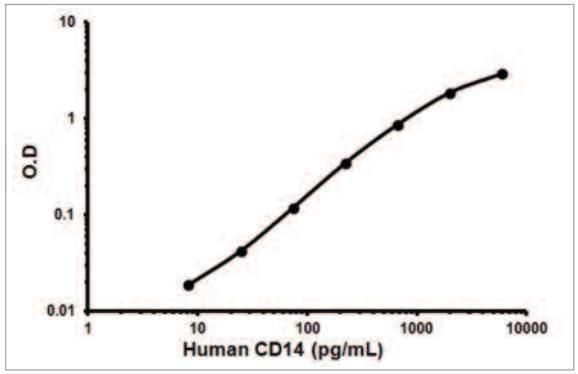

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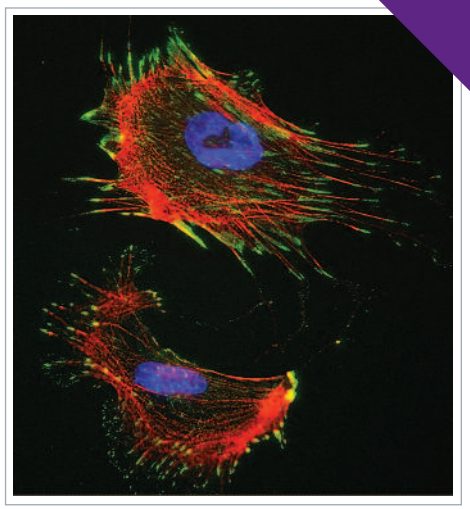

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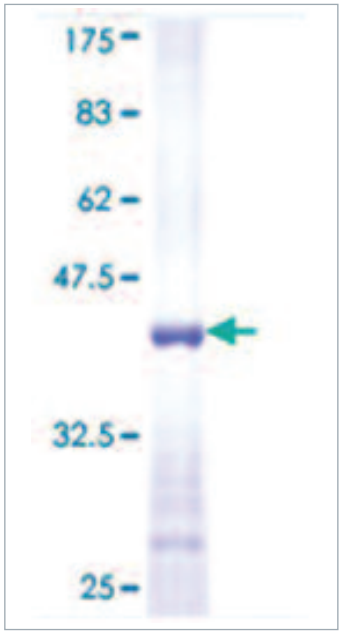

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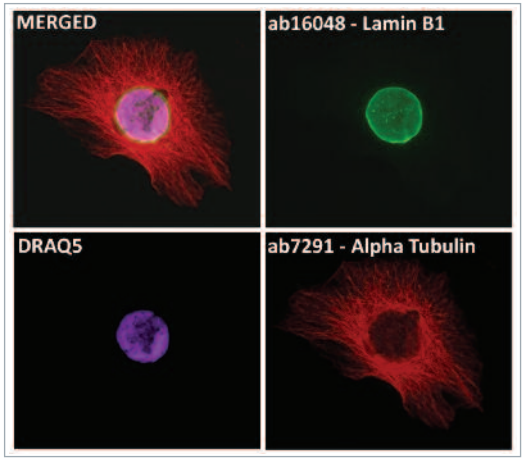

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Target name	Alternative name	Cellular expression	Functions	Polyclonal	Monoclonal											Protein	Immunoassay kits
					Unconjugated	CF™405M	OC 515™	FITC	PE	APC	PE/Cy™5	PerCP	APC/Cy™7	PE/Cy™7	Other fluorochrome	Biotin		
CD162	PSGL-1	Monocytes, granulocytes, most T- and B-cells and stem cells.	Binds E-, P- and L-selectins and mediates rapid rolling of leukocytes over vascular surfaces during the initial steps in inflammation.	•	•			•	•	•							•	•
CD163	M130	Monocytes and macrophages.	Clearance and endocytosis of hemoglobin / haptoglobin complexes by macrophages.	•	•				•	•						•	•	
CD163b	CD163L1, M160	Isoform 1: monocytes and macrophages. Isoform 2: spleen.	Clearance and endocytosis of hemoglobin / haptoglobin complexes by macrophages.	•	•													
CD164	MUC-24, MGC-24	Isoform 1: prostate cancer tumors and osseous metastases. Isoform 2: Small and large bowel as well as lung and thyroid epithelia. Isoform 4: Hematopoietic progenitor cells and bone marrow stromal cells.	May play a role in hematopoiesis. Modulates the migration of umbilical cord blood CD133+ cells and this is mediated through the CXCL12/CXCR4 axis. May play an important role in prostate cancer metastasis and the infiltration of bone marrow by cancer cells. Promotes myogenesis, positively regulates myoblast migration and promotes myoblast fusion into myotubes.		•												•	
CD165	AD2, gp37	Lymphocyte subsets, monocytes, immature thymocytes, platelets and epithelial cells.	Important for adhesion of thymocytes to thymic epithelial cells.															
CD166	ALCAM	Activated T- and B-cells, monocytes, thymic epithelial cells and neurons.	Mediates cell adhesion by binding to CD6. Involved in neurite extension and may play a role in the binding of T- and B-cells to activated leukocytes.	•	•												•	
CD167a	DDR1	Highest expression in the brain, lung, placenta and kidney.	Tyrosine kinase that functions as a cell surface receptor for fibrillar collagen and regulates cell attachment to the extracellular matrix, remodeling of the extracellular matrix, cell migration, differentiation, survival and cell proliferation.	•	•												•	
CD167b	DDR2	Osteocytes, osteoblastic cells and bone lining cells. Also expressed in heart and lung.	Tyrosine kinase that functions as a cell surface receptor for fibrillar collagen and regulates cell differentiation, remodeling of the extracellular matrix, cell migration and cell proliferation. Required for normal bone development.	•	•												•	
CD168	HMMR	Monocytes and T-cell subsets.	Hyaluronan receptor. CD168 activation by Hyaluronan regulates cell migration, proliferation, signaling, regulation of gene expression, cell differentiation, morphogenesis and metastasis, Involved in cellular transformation and metastasis formation.	•	•												•	
CD169	Sialoadhesin, Siglec-1	Macrophages.	Endocytic receptor mediating clathrin-dependent endocytosis.		•			•										
CD170	SIGLEC5, OB-BP2	Macrophages, neutrophils and dendritic cells.	Adhesion molecule mediating sialic-acid dependent binding to cells.	•	•													•
CD171	NCAM-L1, L1CAM	T- and B-cell subsets, monocytes and neurons.	Adhesion molecule involved in axon growth, fasciculation, neural migration and neuronal differentiation.	•	•				•							•	•	
CD172a	SHPS-1, SIRPA	Monocytes, granulocytes, dendritic cells, brain and stem cells.	Immunoglobulin-like cell surface receptor for CD47. Supports adhesion of cerebellar neurons, neurite outgrowth and glial cell attachment. CD47 binding prevents maturation of immature dendritic cells and inhibits cytokine production by mature dendritic cells.	•													•	
CD172b	SIRPB1	Monocytes and dendritic cells.	Immunoglobulin-like cell surface receptor involved in the negative regulation of receptor tyrosine kinase-coupled signaling processes.	•	•													
CD172g	SIRPG, SIRPB2	CD4+ and CD8+ T-cells and activated NK cells.	Immunoglobulin-like cell surface receptor that mediates cell-cell adhesion on binding with CD47.	•	•				•									
CD173	Blood group H type 2	Erythrocytes, stem cell subsets and platelets.	Precursor to the A- and B-blood group antigens.		•													
CD174	Lewis Y	Stem cell subsets, erythrocytes and epithelial cells.	May be involved in the homing process of hematopoietic stem cells to the bone marrow.	•													•	
CD175	Tn	Stem cell subsets and epithelial cells.	Histo-blood group related carbohydrate antigen.															
CD175s	Sialyl Tn	Erythroblasts, endothelial cells and epithelial cells.	Binds CD22, Siglec-3-5 and 6. Implicated in the induction of metastasis and invasiveness of tumors. Overexpressed in several carcinomas and is associated with poor prognosis.		•			•										
CD176	Thomsen-Friedenreich antigen	Stem cell subsets and epithelial cells.	Acts as an oncofetal antigen, with low expression in normal adult tissues but increasing to fetal levels of expression in hyperplasia or malignancy.		•													
CD177	NB1 glycoprotein, HNA-2a	Neutrophils.	Major immunogenic molecule of neutrophil membrane.		•			•	•	•							•	
CD178	Fas ligand, CD95 ligand	Activated T-cells, dendritic cells, tumor cells and testes.	T-cell mediated cytotoxicity. Induces apoptosis in Fas-expressing target cells.	•	•			•	•							•	•	•
CD179a	VpreB1	Pre-B-cells.	Early B-cell differentiation.	•														
CD179b	λ5	Pre-B-cells.	B-cell development.	•													•	
CD180	RP105	Mature peripheral B-cells, monocytes and dendritic cells.	Mediates the innate immune response to bacterial LPS in B-cells. Leads to NFkB activation. Also involved in the life / death decision of B-cells.	•	•				•							•	•	

CD181	CXCR1, IL8R alpha	Neutrophils, basophils, natural killer cells, T-cell subsets, monocytes and endothelial cells.	Neutrophil chemotaxis and activation.	•	•									
CD182	CXCR2	Neutrophils, basophils, natural killer cells, T-cell subsets, monocytes and endothelial cells.	Neutrophil chemotaxis and activation.	•	•								•	
CD183	CXCR3	T-cell subsets, B-cells, natural killer cells, monocytes, macrophages and proliferating endothelial cells.	T-cell chemotaxis, integrin activation, cytoskeletal changes and chemotactic migration in inflammation-associated effector T-cells.	•	•								•	•	
CD184	CXCR4	T-cell subsets, B-cells, dendritic cells, monocytes and endothelial cells.	Cell migration, hematopoietic progenitor cell homing and HIV-1 cell entry.	•	•										
CD185	CXCR5	Mature B-cells and Burkitt lymphoma cells.	Binds B-cell chemoattractant BL. Involved in B-cell migration into B-cell follicles of spleen and Peyer's patches.	•	•									•	
CD186	CXCR6, Bonzo	Th1 cells, B-cell subsets and natural killer cell subsets.	Receptor for CXCL16. Involved in T-cell recruitment and is an HIV-1 co-receptor.	•	•									•	
CD191	CCR1	Monocytes, macrophages, lymphocytes, dendritic cells and hematopoietic stem cells.	Binds to MIP-1-alpha, MIP-1-delta, RANTES and MCP-3. Involved in leukocyte chemotaxis and affecting stem cell proliferation.	•	•										
CD192	CCR2	Monocytes, B-cells, activated T-cells and dendritic cells.	Leukocyte chemotaxis and is an HIV co-receptor.	•	•									•	
CD193	CCR3	Eosinophils, trace amounts in neutrophils and monocytes.	Leukocyte chemotaxis and is an HIV co-receptor.	•	•								•	•	
CD194	CCR4	CD4+ T-cells, basophils, platelets, macrophages and natural killer cells.	Chemoattractant homing receptor on circulating memory lymphocytes. Co-receptor for some primary HIV-2 isolates.	•	•										
CD195	CCR5	Monocytes and T-cell subsets.	Leukocyte chemotaxis and is an HIV co-receptor.	•	•			•	•				•	•	
CD196	CCR6, CKR-L3, GPRCY4	Lymphocytes and dendritic cells.	Receptor for a C-C type chemokine. Binds to MIP-3-alpha/LARC and affects dendritic cell chemotaxis.	•	•										
CD197	CCR7, BLR2	Activated T- and B-cells. Strongly upregulated in B-cells infected with Epstein-Barr.	Receptor for MIP-3-beta. Mediator of Epstein-Barr virus effects on B-cells and lymphocyte migration into lymph nodes.	•	•				•	•			•		
CDw198	CCR8, CKR-L1, GPRCY6	Monocytes, T-cell subsets, dendritic cells and HUVEC cells.	Regulates monocyte chemotaxis and thymic cell line apoptosis, is a co-receptor for HIV-1 infection.	•	•										
CDw199	CCR9	Thymocytes, lymphocytes and melanoma cells.	Regulates chemotaxis, is a co-receptor for HIV-1 infection.	•	•			•	•						
CD200	OX-2	Thymocytes, B-cells, activated T-cells, endothelial cells and keratinocyte subsets virus.	Down-regulatory signal for myeloid cell function, costimulates T-cell proliferation.	•	•			•	•	•			•	•	
CD201	EPCR	Endothelial cell subsets.	Enhances protein C activation, involved in the protein C pathway controlling blood coagulation.	•	•									•	
CD202b	TIE2, TEK	Endothelial cells and angioblasts.	Regulates angiogenesis, endothelial cell survival, proliferation, migration and adhesion.	•	•				•				•	•	•
CD203a	ENPP1, M6S1, NPPS, PC1, PDNP1	Plasma cells and some non-lymphoid tissues.	ATP hydrolysis at the plasma membrane. May also modulate insulin sensitivity.	•										•	
CD203c	ENPP3	Basophils, mast cells and their progenitors.	Enzyme catalyzing hydrolysis of deoxynucleotides, nucleotide sugars and NAD.	•	•				•			•			
CD204	MSR1	Monocyte-derived macrophages.	Endocytosis of macromolecules including low density lipoproteins, host defense.	•	•									•	
CD205	DEC205	Dendritic cells, B-cells and thymic epithelial cells.	Endocytic receptor enhancing antigen presentation, causes reduced proliferation of B-cells.	•	•			•	•				•	•	
CD206	MMR	Macrophages, monocytes and Langerhans cells.	Endocytosis (phagocytosis and pinocytosis) of mannose-containing solutes.	•	•								•	•	
CD207	Langerin	Langerhans cells.	Facilitates uptake of antigens and is involved in the routing and / or processing of antigen for presentation to T-cells.	•	•									•	
CD208	LAMP3	Dendritic cells.	Dendritic cell maturation marker, involved in cell proliferation.	•											
CD209	DC-SIGN	Dendritic cells, placental macrophages, endothelial cells of placental vascular channels, peripheral blood mononuclear cells and THP-1 monocytes.	Mediates antigen endocytosis and degradation binds pathogenic antigens such as HIV1 gp120.	•	•			•	•				•	•	
CD210	IL10RA, IL10R1, CDw210a	Monocytes, B- and T-cells and large granular lymphocytes.	Receptor for IL10, inhibits macrophage activation by interferon-gamma.	•	•									•	
CDw210b	IL10RB, IL10R2	Monocytes, macrophages, dendritic cells, B- and T-cells.	Forms part of the receptor complexes for IL10, IL22, IL26, IL28, and IL29.	•	•									•	•
CD212	IL12RB1	Activated T-cells and natural killer cells.	Forms part of the receptor complexes for IL12 and IL23.	•	•									•	
CD213a1	IL13RA1	B- and T-cells, monocytes and endothelial cells.	Forms part of the receptor complexes for IL13 and IL4.	•	•								•	•	
CD213a2	IL13RA2	B-cells and monocytes.	Forms part of the receptor complex for IL13.	•	•				•					•	•
CD215	IL15RA	Widely expressed.	Receptor for IL15.	•	•									•	
CD217	IL17R	B- and T-cells, monocytes, macrophages and granulocytes.	Receptor for IL17A and IL17F.	•	•				•						•
CD218a	IL18R1	B- and T-cell subsets, natural killer cells, monocytes, granulocytes and endothelial cells.	Forms part of the receptor complex for IL18.	•	•			•	•					•	
CD218b	IL18Rbeta, IL18RAP	Natural killer cells, T-cell subsets, monocytes and endothelial cells.	Forms part of the receptor complex for IL18.	•	•									•	•
CD220	Insulin receptor	Widely expressed in tissue targets of insulin metabolic effects.	Tyrosine-protein kinase activity. Binding of insulin stimulates its association with downstream mediators including insulin receptor substrates and phosphatidylinositol 3'-kinase (PI3K), which leads to glucose uptake.	•	•								•	•	
CD221	Insulin-like growth factor 1 receptor	Wide tissue expression.	Mediates insulin-stimulated DNA synthesis and insulin-like growth factor 1-stimulated cell proliferation and differentiation.	•	•					•				•	•

Target name	Alternative name	Cellular expression	Functions	Polyclonal	Monoclonal											Protein	Immunoassay kits
					Unconjugated	CF™405M	OC 515™	FITC	PE	APC	PE/Cy™5	PerCP	APC/Cy™7	PE/Cy™7	Other fluorochrome	Biotin		
CD222	M6PR, IGFII-R	Lymphocytes, monocytes, granulocytes and fibroblasts.	Transports phosphorylated lysosomal enzymes from the Golgi complex and the cell surface to lysosomes.	•	•			•	•	•					•		•	
CD223	LAG-3	Activated natural killer and T-cells.	Involved in lymphocyte activation, negative regulation of T-cell activation.		•													
CD224	GGT1	T- and B-cells, monocytes, macrophages and stem cells.	Catalyzes the transfer of the glutamyl moiety of glutathione to a variety of amino acids and dipeptide acceptors, which contributes to oxidative homeostasis.	•	•												•	
CD225	IFITM1, Leu-13, DSPA2a	T- and B-cells, monocytes, endothelial cells, osteocytes and osteoblasts.	Inhibits viral entry, implicated in cell adhesion, control of cell growth and migration. Relays antiproliferative and homotypic adhesion signals.	•													•	
CD226	DNAM-1, PTA1	T-cells, natural killer cells, monocytes and platelets.	Involved in intercellular adhesion, lymphocyte signaling, cytotoxicity and lymphokine secretion mediated by cytotoxic T-cells and natural killer cells.	•	•			•	•							•	•	
CD227	MUC1, PUM, EMA	T-cells, monocytes, macrophages, epithelial cells and stem cell subsets.	Cell adhesion and signaling through phosphorylations and protein-protein interactions.	•	•												•	
CD228	Melanotransferrin, MFI2	Endothelial cells, stem cells and melanoma cells.	Involved in cellular iron uptake.	•														
CD229	Ly9	T- and B-cells.	Involved in adhesion between T-cells and accessory cells.	•	•				•	•							•	
CD230	PrP	Broad antigenic expression.	Involved in neuronal development and synaptic plasticity. Altered forms of the protein are responsible for prion diseases.	•	•											•	•	
CD231	Tspan-7, TALLA-1	T-cells and endothelial cells.	Potentially involved in cell proliferation and motility.	•														
CD232	Plexin-C1, VESP-R	Melanocytes, monocytes, B-cells and natural killer cells.	Receptor for SEMA7A, smallpox semaphorin A39R, vaccinia virus semaphorin A39R and for herpesvirus Sema protein. Potential anti-tumor role in melanomas.															
CD233	Band 3, AE1	Erythrocytes.	Anion exchanger across the cytoplasmic membrane, binding site for cytoskeletal proteins, enzymes and hemoglobin.	•	•												•	
CD234	Duffy antigen receptor, DARC	Erythrocytes, endothelial cells and epithelial cells.	Receptor for *Plasmodium spp*. Non-specific chemokine receptor.	•	•				•								•	
CD235a	Glycophorin-A	Erythrocytes.	Major erythrocyte intrinsic membrane protein. Minimizes erythrocyte aggregation, receptor for influenza virus, *Plasmodium falciparum* and Hepatitis A virus.	•	•			•	•	•						•	•	
CD235b	Glycophorin-B	Erythrocytes.	Minor sialoglycoprotein in erythrocyte membranes, receptor for *Plasmodium falciparum*.	•														
CD236	Glycophorin-C/D	Two isoforms produced by alternative splicing: Glucophorin-C is expressed in erythrocytes, Glycophorin-D is ubiquitously expressed.	Glycophorin-C regulates the stability of red cells.		•													
CD238	Kell blood group glycoprotein	Erythrocytes, Sertoli cells and follicular dendritic cells.	Zinc endopeptidase cleaving endothelin 3.	•	•												•	
CD239	Lutheran blood group antigen, B-CAM	Erythrocytes, endothelial cells and epithelial cells.	Laminin alpha-5 receptor, plays a role in erythrocyte differentiation and trafficking.	•	•												•	
CD240CE	Blood group Rh(CE) polypeptide	Erythrocytes.	Part of an oligomeric complex with a putative transport or channel function in the erythrocyte membrane.	•	•													
CD240D	Blood group Rh(D) polypeptide	Erythrocytes.	Part of an oligomeric complex with a putative transport or channel function in the erythrocyte membrane.	•													•	
CD241	RHAG, RH50	Erythrocytes.	Ammonium transporter, associated with rhesus blood group antigen expression.	•														
CD242	ICAM-4	Erythrocytes.	Ligand for the leukocyte adhesion protein LFA-1, critical in erythroblastic island formation.	•													•	
CD243	MDR-1	Stem cells and drug resistant tumor cells.	TP binding cassette transport protein. Influences uptake, tissue distribution and elimination of P-glycoprotein transported toxins and drugs.	•	•			•	•								•	
CD244	2B4, NAIL	Natural killer cells, basophils and monocytes.	Natural killer cell activation, natural killer cell and T-cell interaction.	•	•			•	•								•	
CD245	p220/240	T-cell subsets.	Signal transduction and co-stimulation of T- and natural killer cells.															
CD246	ALK	Embryonic neurons of CNS and PNS.	Tyrosine kinase receptor for pleiotrophin and midkine. Induces cell proliferation and differentiation in the nervous system.	•	•												•	
CD247	TCR Z chain	T-cells and natural killer cells.	Plays a role in the assembly and expression of the TCR complex as well as signal transduction upon antigen triggering.	•	•			•	•							•	•	
CD248	Endosialin	Tumor endothelial cells and stromal fibroblasts.	Plays a role in tumor angiogenesis.	•													•	
CD249	EAP, Aminopeptidase A	Epithelial cells and endothelial cells.	Converts angiotensin II to angiotensin III.	•	•			•	•							•	•	
CD252	**OX40L**	**Dendritic cells, activated B-cells, endothelial cells and mast cells.**	**Ligand for receptor TNFRSF4. Co-stimulates T-cell proliferation and cytokine production.**	•	•			•	•								•	
CD253	Apo-2L, TRAIL	Activated T-cells and natural killer cells.	Initiates apoptosis of tumor cells by binding to either DR4 or DR5 receptors.	•	•				•							•	•	•

CD254	ODF, OPGK, RANKL, TRANCE	Activated T-cells, stromal cells and osteoclasts.	Plays a role in T- and B-cell as well as T-cell and dendritic cell interactions. Involved in osteoclast differentiation and consequently bone resorption.	•	•				•				•	•	
CD256	APRIL, TALL-2, TRDL-1	Leukocytes, pancreatic cells and colon.	T- and B-cell proliferation, activates NFkB, and induces cell death. May be involved in monocyte / macrophage-mediated immunological processes.	•	•								•		•
CD257	BAFF, TALL-1	Monocytes, macrophages, T-cells and dendritic cells.	Involved in the stimulation of B- and T-cell function and the regulation of humoral immunity.	•	•			•					•	•	•
CD258	TNFRSF14, HVEM-L	Activated T-cells, activated monocytes and B-cells.	Stimulates T-cell proliferation, receptor for Herpes simplex virus.	•	•									•	•
CD261	DR4, TRAIL-R1	Activated T-cells and selected tumor cells.	Induces apoptosis, promotes activation of NFkB.	•	•			•	•					•	•
CD262	DR5, TRAIL-R2	Leukocytes and selected tumor cells.	Activated by TNFSF10 / TRAIL and transduces apoptosis signal.	•	•			•	•				•	•	
CD263	DcR1, TRAIL-R3	Low expression in most cells and negative in most tumor cells.	Receptor for TRAIL, competes with TRAIL-R1 and TRAIL-R2 thus inhibiting apoptosis.	•	•			•	•					•	•
CD264	DCR2, TRAIL-R4	Low expression in most cells and negative in most tumor cells.	Receptor for TRAIL, inhibits apoptosis.	•	•										•
CD265	RANK, ODFR	Dendritic cells and activated monocytes.	Receptor for TRANCE, essential for osteoclastogenesis. Enhances T-cell growth and dendritic cell function, plays a role in lymph node organogenesis.	•	•				•				•	•	
CD266	TWEAKR	Endothelial cells.	Receptor for TWEAK. Weak inducer of apoptosis in some cell types. Promotes angiogenesis and the proliferation of endothelial cells. May modulate cellular adhesion to matrix proteins.	•	•			•	•				•	•	
CD267	TACI	Resting B-cells and activated T-cells.	Receptor for CD256 and CD257, mediates activation of the transcription factors NFAT, AP1, and NFkB. Involved in the stimulation of B- and T-cell function and the regulation of humoral immunity.	•	•								•	•	
CD268	BAFF receptor	Resting B-cells, lower levels in activated B-cells and resting CD4+ cells.	B-cell receptor for CD257. Promotes the survival of mature B-cells and B-cell response.	•	•								•	•	
CD269	BCMA	Mature B-cells.	Receptor for CD256 and CD257, activates NFkB and JNK. Promotes B-cell survival and plays a role in the regulation of humoral immunity.	•	•									•	
CD270	HveA, TR2	Widely expressed.	Receptor for CD258 and CD272. Plays an important role in Herpes simplex virus (HSV) pathogenesis and mediates HSV entry into activated human T-cells.	•	•									•	•
CD271	NGF receptor, p75NTR	Schwann cells, neurons, bone marrow-derived mesenchymal stem cells.	Regulates neuronal growth, migration, differentiation and cell death during development of the central and peripheral nervous system.	•	•			•					•	•	
CD272	BTLA	CD4+ and CD8+ T-cells, remains expressed on Th1 cells but not Th2 cells.	Lymphocyte inhibitory receptor, regulates lymphocyte activation and / or homeostasis as well as T-cell tolerance.	•	•									•	
CD273	PD-L2, B7-DC	Dendritic cells and activated monocytes.	Stimulatory on dendritic cells, inhibits T-cell activation upon engaging the PD1 receptor. Mediates T-cell activation through non PD1 mediated interactions.		•			•	•						
CD274	PD-L1, B7-H1	Activated T- and B-cells, dendritic cells, keratinocytes and monocytes.	Essential for T-cell proliferation and production of interferon gamma and IL10. Interaction with PDCD1 inhibits T-cell proliferation and cytokine production.	•	•				•				•	•	
CD275	B7-H2, B7RP-1	Activated monocytes, macrophages and dendritic cells.	Ligand for CD278. Costimulatory signal for T-cell proliferation and cytokine secretion, induces B-cell proliferation and differentiation.	•	•				•					•	
CD276	B7-H3	Monocyte-derived dendritic cells, activated macrophages, epithelial cells, activated T-, B- and natural killer cells.	Enhances the induction of cytotoxic T-cells and selectively stimulates interferon gamma production in the presence of T-cell receptor signaling. Regulatory role in bone formation.	•	•			•	•					•	
CD277	BTN3A1	T- and B-cells, natural killer cells, monocytes, dendritic cells and endothelial cells.	T-cell activation.	•											
CD278	ICOS	Activated T-cells.	Enhances all basic T-cell responses to foreign antigens including proliferation, secretion of lymphokines, up-regulation of molecules that mediate cell-cell interactions, and effective help for antibody secretion by B-cells.	•	•				•	•	•		•		
CD279	PD-1	Activated T- and B-cells.	Inhibitory cell surface receptor involved in T-cell tolerance.	•	•			•					•	•	
CD280	MRC2	Endothelial cells, fibroblasts and macrophages.	Endocytotic lectin receptor displaying calcium-dependent lectin activity. Involved in cellular uptake, remodeling and lysosomal degradation of extracellular collagen matrices. May play a role in the plasminogen activation system controlling the extracellular level of PLAUR / PLAU.	•	•									•	
CD281	TRL1	Monocytes, macrophages, dendritic cells and keratinocytes.	Pathogen recognition and activation of innate immunity, regulates TLR2 function.	•	•			•						•	
CD282	TLR2	Monocytes, granulocytes, macrophages, dendritic cells, keratinocytes and epithelial cells.	Mediator of innate immunity against bacterial cell wall lipoproteins. Induces activation of NFkB.	•	•			•	•	•			•	•	•
CD283	TLR3	Dendritic cells, fibroblasts, epithelial cells, glial cells and neurons.	Mediator of innate immunity against viral infection, activated by dsDNA.	•	•			•	•				•	•	•
CD284	TLR4	Monocytes, macrophages, dendritic cells and T-cell subsets.	Mediator to innate immunity against bacterial polysaccharides. Induces activation of NFkB and production of type I interferons.	•	•			•	•				•	•	

Target name	Alternative name	Cellular expression	Functions	Polyclonal	Monoclonal											Protein	Immunoassay kits
					Unconjugated	CF™405M	OC 515™	FITC	PE	APC	PE/Cy™5	PerCP	APC/Cy™7	PE/Cy™7	Other fluorochrome	Biotin		
CD286	TLR6	Monocytes, CD11c+ dendritic cells, plasmacytoid pre-dendritic cells and dermal microvessel endothelial cells.	TLR6:TLR2 dimers coordinate macrophage activation by Gram positive bacteria and fungal zymosan. Initiates proinflammatory cascades and apoptotic responses, acts via MYD88 and TRAF6, leading to NFkB activation, cytokine secretion and the inflammatory response.	•	•			•								•	•	
CD288	TLR8	Monocytes, macrophages, dendritic cells and neurons.	Role in pathogen recognition and activation of innate immunity. Activated by viral ssRNA and bacterial RNA.	•	•				•								•	
CD289	TLR9	Peripheral blood leukocytes and plasmacytoid pre-dendritic cells.	Participates in the innate immune response to microbial agents. Activated by unmethylated cytidine-phosphate-guanosine (CpG) dinucleotides, it acts via MYD88 and TRAF6, leading to NFkB activation, cytokine secretion and the inflammatory response.	•	•			•								•	•	
CD290	TLR10	B-cells and dendritic cells.	Participates in the innate immune response to microbial agents. Acts via MYD88 and TRAF6, leading to NFkB activation, cytokine secretion and the inflammatory response.	•	•												•	
CD292	BMPR-1A, ALK-3, SKR5	Skeletal muscle cells, bone progenitor cells, chondrocytes and mesenchymal cells.	Receptor for BMP-2 and BMP-4. Plays a role in apoptosis and adipocyte development, cell differentiation and extracellular matrix deposition by osteoblasts.	•	•												•	
CDw293	BMPR-1B	Mesenchymal cells, bone progenitor cells, chondrocytes and epithelial cells.	Receptor for BMP7 and GDF5. Plays a role in chodrogenesis.	•	•												•	
CD294	GPR44	Th2 cells, basophils and eosinophils.	Regulates immune and inflammatory responses, induces Th2 cell, eosinophil and basophil migration.	•														
CD295	LEP-R, OB-R	Hematopoietic cells, heart, liver, kidney and pancreatic cells.	Receptor for leptin. Involved in the regulation of fat metabolism and required for normal lymphopoiesis.	•	•												•	•
CD296	ART1	Neutrophils, cardiac and skeletal muscle cells.	Catalyzes the transfer of ADP-ribose from NAD+ to arginine residues in proteins.	•														
CD297	ART4	Erythrocytes, monocytes, macrophages, basophils and endothelial cells.	Plays a role in the metabolism of Dombrock blood group antigen.	•														
CD298	ATP1B3	Neuronal cells.	Component of Na+-K+ pump on neuronal membranes.	•	•													
CD299	CLEC4M, L-SIGN, DC-SIGNR	Liver and lymph node endothelial cells.	Pathogen-recognition receptor involved in peripheral immune surveillance in liver. Recognizes mannose N-linked oligosaccharides in HIV-1, HIV-2, human cytomegalovirus and human SARS coronavirus.	•	•												•	
CD300a	CLM-8	Natural killer cells, T-cell subsets, B-cells, dendritic cells, mast cells, granulocytes and monocytes.	Inhibitory receptor which may contribute to the down-regulation of cytolytic activity in natural killer cells, and to the down-regulation of mast cell degranulation.	•	•				•								•	
CD300b	CLM-7, IREM3	Basophils, mast cells, eosinophils, neutrophils, monocytes and macrophages.	Activating immune receptor by interaction with TYROBP.	•														
CD300c	CLM-6	Monocytes, neutrophils, peripheral blood T- and B-cells.	Regulates IFN-alpha and TNF-alpha secretion by plasmacytoid dendritic cells.	•													•	
CD300d	CLM-4	Basophils, mast cells, eosinophils, neutrophils, monocytes and macrophages.	Regulation of the expression of other CD300 molecules.	•														
CD300e	CLM-2, IREM-2	Monocytes, macrophages and myeloid dendritic cells.	Prevents apoptosis, triggers the production of pro-inflammatory cytokines and upregulates the expression of cell surface co-stimulatory molecules.	•	•			•	•	•		•						
CD300f	CLM-1, IREM-1	Monocytes, macrophages and mast cells.	Acts as an inhibitory receptor for myeloid cells and mast cells. Inhibits osteoclast formation.	•	•													
CD300g	CLM-9, TREM4	Endothelium.	May mediate L-selectin-dependent lymphocyte rollings.	•													•	
CD301	CLEC10A	Macrophages and immature dendritic cells.	Plays a role in cell adhesion, cell-cell signaling and cellular recognition through glycoprotein binding.	•													•	
CD302	-	Monocytes, macrophages and dendritic cells.	Functions in endocytosis and phagocytosis as well as in cell adhesion and migration.	•														
CD303	CLEC4C, BCDA-2	Plasmacytoid dendritic cells and immature monocyte-derived dendritic cells.	Antigen-capturing and peptide loading into compartments for presentation to T-cells. May mediate inhibition of induction of IFN-alpha / beta expression in plasmacytoid dendritic cells. May act as signaling receptor activating protein-tyrosine kinases and mobilizing intracellular calcium.															
CD304	Neuropilin 1	Dendritic cells, T-cells, neurons and endothelial cells.	Regulates VEGF-induced angiogenesis, dendritic cell and T-cell interaction, as well as neuritogenesis.	•	•											•	•	
CD305	LAIR1	T- and B-cells, natural killer cells, dendritic cells, monocytes and macrophages.	Inhibitory receptor that plays a constitutive negative regulatory role on cytolytic function of natural killer cells, B- and T-cells.	•	•			•	•								•	
CD306	LAIR2	Monocytes and T-cells.	Inhibits cellular activation and inflammation.	•													•	

CD307a	FcRL1	Mature B-cell subsets.	May function in B-cells activation and differentiation.	•									•	
CD307a	FcRL1	Mature B-cell subsets.	May function in B-cells activation and differentiation.	•									•	
CD307b	FcRL2	Mature B-cell subsets.	Regulatory role in normal and neoplastic B cell development.	•										
CD307c	FcRL3	Mature B-cell subsets.	Interacts with PTPN6, PTPN11, SYK and ZAP-70.	•										
CD307d	FcRL4, IRTA1	Memory and monocytoid B-cells.	Putative inhibitor of B-cell receptor signaling.	•										
CD307e	FcRL5	Mature and memory B-cells.	May be involved in B-cell development and differentiation.	•										
CD309	VEGFR-2	Endothelial cells and primitive stem cells.	Activation of this receptor by VEGF plays a role in angiogenesis, development, wound healing, cell proliferation, migration and differentiation.	•	•							•	•	•
CD312	EMR2	Macrophages, activated monocytes, dendritic cells, granulocytes, hepatocytes and lung cells.	Promotes granulocyte chemotaxis, degranulation and adhesion. In macrophages, promotes the release of inflammatory cytokines, including IL8 and TNF.	•										
CD314	NKG2D, KLRK1	Natural killer cells, T-cell subsets and dendritic cell subsets.	Receptor for the recognition of MHC class I HLA-E molecules by natural killer cells and some cytotoxic T-cells.	•	•		•	•	•		•	•	•	
CD315	PTGFRN	Megakaryocytes, hepatocytes, epithelial cells and endothelial cells.	Inhibits binding of prostaglandin F2-alpha (PGF2-alpha) to its specific FP receptor.	•										
CD316	IGSF8, EWI-2, KCT-4	B-cells, T-cells and natural killer cells.	Negative regulator of cell motility. May regulate neurite outgrowth and maintenance of the neural network in the brain.	•									•	
CD317	BST2	T-cells, monocytes, natural killer cells and dendritic cells.	IFN-induced antiviral host restriction factor which efficiently blocks the release of diverse mammalian enveloped viruses by directly tethering nascent virions to the membranes of infected cells.	•	•								•	
CD318	CDCP1, SIMA135	Hematopoietic stem cells and epithelial cells.	May be involved in cell adhesion and cell matrix association. Potential role in the regulation of anchorage versus migration or proliferation versus differentiation via its phosphorylation. Possible marker for leukemia diagnosis and for immature hematopoietic stem cell subsets. Belongs to the tetraspanin web involved in tumor progression and metastasis.	•	•								•	
CD319	SLAMF7, CRACC	Natural killer cells and activated B-cells.	Mediates natural killer cell activation and may play a role in lymphocyte adhesion.	•	•			•					•	
CD320	FDC-SM-8D6, TCbIR	Follicular dendritic cells.	Augments the proliferation of plasma cell precursors generated by IL10. Receptor for the cellular uptake of transcobalamin bound cobalamin.	•										
CD321	JAM-A, JAM-1, PAM-1, F11R	Epithelial cells, endothelial cells, leukocytes, platelets and erythrocytes.	Plays a role in epithelial tight junction formation, regulation of leukocyte migration, epithelial barrier maintenance and platelet activation.	•	•							•	•	
CD322	JAM-B, JAM-2, VE-JAM	High endothelial cells.	May play a role in lymphocyte homing to secondary lymphoid organs.	•	•								•	
CD324	E-Cadherin, CDH1	Epithelial cells, keratinocytes, trophoblasts and platelets.	Calcium-dependent cell adhesion protein. Involved in cell-cell and cell-matrix adhesion, tumor suppression, cell growth and differentiation.	•	•		•	•	•			•	•	
CD325	N-Cadherin, Cadherin-2, CDH2	Neurons, striated and cardiac muscle cells, fibroblasts, epithelial cells, pancreatic cells and hepatocytes.	May be involved in neuronal recognition mechanisms. In hippocampal neurons, may regulate dendritic spine density.	•	•			•			•	•	•	
CD326	Ep-CAM, EGP314	Embryonic stem cells, epithelial cells and adenocarcinomas.	May act as a physical homophilic interaction molecule between intestinal epithelial cells and intraepithelial lymphocytes at the mucosal epithelium for providing an immunological barrier as a first line of defense against mucosal infection. Plays a role in embryonic stem cells proliferation and differentiation.	•	•		•	•	•			•	•	
CD327	Siglec-6, OB-BP1	B-cells, placenta trophoblastic cells and granulocytes.	Adhesion molecule that mediates sialic-acid dependent binding to cells.	•										
CD328	Siglec-7, AIRM-1	Natural killer cells, monocytes and granulocytes.	Adhesion molecule that mediates sialic-acid dependent binding to cells. Mediates inhibition of natural killer cell cytotoxicity. May play a role in hematopoiesis. Inhibits differentiation of CD34+ cell precursors towards myelomonocytic cell lineage and proliferation of leukemic myeloid cells (*in vitro*).	•	•									
CD329	Siglec-8, SAF-2	Eosinophils.	Adhesion molecule that mediates sialic-acid dependent binding to cells.	•	•									
CD331	FGFR1, BFGFR, FLT-2	Epithelial cells, endothelial cells, fibroblasts, mesenchymal cells and cardiomyocytes. Also expressed in astrocytoma, neuroblastoma and adrenal cortex cell lines.	Cell-surface receptor for fibroblast growth factors. Plays an essential role in the regulation of embryonic development, cell proliferation, differentiation and migration.	•	•								•	
CD332	FGFR2, KGFR	Neurons, hepatocytes, fibroblasts and epithelial cells.	Cell-surface receptor for fibroblast growth factors. Plays an essential role in the regulation of cell proliferation, differentiation, migration and apoptosis, and in the regulation of embryonic development.	•	•								•	
CD333	FGFR3	Brain, kidney and adult testes.	Cell-surface receptor for fibroblast growth factors. Plays an essential role in the regulation of cell proliferation, differentiation and apoptosis, as well as in chondrocyte differentiation, proliferation and apoptosis. Required for normal skeleton development.	•	•								•	
CD334	FGFR4	Liver, kidney, lung, pancreatic cells, lymphocytes and macrophages.	Cell-surface receptor for fibroblast growth factors. Plays a role in the regulation of cell proliferation, differentiation and migration, as well as in the regulation of lipid metabolism, bile acid biosynthesis, glucose uptake, vitamin D metabolism and phosphate homeostasis.	•	•								•	

Target name	Alternative name	Cellular expression	Functions	Polyclonal	Monoclonal											Protein	Immunoassay kits
					Unconjugated	CF™405M	OC 515™	FITC	PE	APC	PE/Cy™5	PerCP	APC/Cy™7	PE/Cy™7	Other fluorochrome	Biotin		
CD335	NCR1, NK-p46	Natural killer cells.	Cytotoxicity-activating receptor that may contribute to the increased efficiency of activated natural killer cells to mediate tumor cell lysis.	•	•												•	
CD336	NCR2, NK-p44	Activated natural killer cells.	Cytotoxicity-activating receptor that may contribute to the increased efficiency of activated natural killer cells to mediate tumor cell lysis.		•													
CD337	NCR3, NK-p30	Natural killer cells.	Cytotoxicity-activating receptor that contributes to the increased efficiency of activated natural killer cells to mediate tumor cell lysis.	•	•												•	
CD338	ABCG2	Hepatocytes, intestinal epithelial cells, kidney, lung and placental cells.	Xenobiotic transporter that may play an important role in the exclusion of xenobiotics from the brain. May be involved in brain-to-blood efflux.	•	•											•	•	
CD339	Jagged1, JAG1	Bone marrow stromal cells, thymic epithelium, endothelial cells, Schwann cells, keratinocytes, ovarian, prostate, pancreatic, placenta and heart cells.	Ligand for multiple Notch receptors. Involved in the mediation of Notch signaling, cell fate determination in hematopoiesis and cardiovascular development.	•	•												•	
CD340	ERBB2, MLN 19	Epithelial and endothelial cells, keratinocytes, hematopoietic stem cell subsets, fetal mesodermal cells and extraembryonic tissues.	Protein tyrosine kinase forming part of several cell surface receptor complexes. Essential component of a neuregulin-receptor complex, regulates outgrowth and stabilization of peripheral microtubules.	•	•			•	•			•			•	•	•	•
CD344	Frizzled-4, Fz-4, FzE4	Ubiquitous expression. Highest expression in adult cardiac cells, striated muscle cells, ovary and fetal kidney.	Receptor for Wnt proteins, may be involved in transduction and intercellular transmission of polarity information during tissue morphogenesis. Plays a critical role in retinal angiogenesis.	•													•	
CD349	Frizzled-9, Fz-9, FZD9	Mesenchymal stem cells, neural precursors, mammary epithelial cells, neurons, testes and kidney.	Receptor for Wnt proteins. May be involved in transduction and intercellular transmission of polarity information during tissue morphogenesis and / or in differentiated tissues.	•	•													
CD350	Frizzled-10, Fz-10, FZD10	Placenta, fetal kidney, fetal lung and fetal brain.	Receptor for Wnt proteins. May be involved in transduction and intercellular transmission of polarity information during tissue morphogenesis and / or in differentiated tissues.	•													•	
CD351	FCAMR	Mesangial cells.	Receptor for the Fc fragment of IgA and IgM. May function in the immune response to microbes mediated by IgA and IgM.															
CD352	NTB-A, SLAMF6	Natural killer cells, T- and B-cells.	Triggers cytolytic activity only in natural killer cells expressing high surface densities of natural cytotoxicity receptors.	•	•												•	
CD353	SLAMF8	Thymocytes, splenocytes and bone marrow cells.	May play a role in B-lineage commitment and / or modulation of signaling through the B-cell receptor.															
CD354	TREM-1	Hepatocytes, lung cells, splenocytes and peripheral blood leukocytes.	Stimulates neutrophil and monocyte-mediated inflammatory responses. Triggers release of pro-inflammatory chemokines and cytokines, as well as increased surface expression of cell activation markers. Acts as an amplifier of inflammatory responses that are triggered by bacterial and fungal infections and is a crucial mediator of septic shock.	•	•												•	
CD355	CRTAM	T-cell subsets, splenocytes, thymocytes, peripheral blood leukocytes and Purkinje cells.	Interaction with CADM1 promotes natural killer cell cytotoxicity and IFN-gamma secretion by CD8+ cells in vitro as well as natural killer cell-mediated rejection of tumors expressing CADM3 *in vivo*.	•	•												•	
CD357	TNFRSF18	Lymphocytes and peripheral blood leukocytes.	Receptor for TNFSF18. Seems to be involved in interactions between activated T-cells and endothelial cells and in the regulation of T-cell receptor-mediated cell death.	•	•				•									
CD358	TNFRSF21	Cardiomyocytes, neurons, placental cells, pancreatic cells and lymphocytes.	May activate NFkB and promote apoptosis. May activate JNK and be involved in T-cell differentiation. Required for both normal cell body death and axonal pruning.	•	•				•								•	
CD360	IL-21R	Lymphoid tissues, particularly thymus and spleen.	Receptor for interleukin-21.	•	•												•	
CD361	EVI2B	B-cells, bone marrow, peripheral blood mononuclear cells, fibroblasts and Epstein-Barr virus-transformed lymphoblastoid cell lines.	Possibly involved in melanocyte and keratinocyte differentiation.		•				•									
CD362	Syndecan-2, HSPG, SDC2	T-cells.	Cell surface proteoglycan that bears heparan sulfate.	•													•	
CD363	S1PR1	Endothelial cells, vascular smooth muscle cells, fibroblasts and melanocytes.	Receptor for the lysosphingolipid sphingosine 1-phosphate (S1P). This inducible epithelial cell G-protein-coupled receptor may be involved in the processes that regulate the differentiation of endothelial cells.	•	•												•	

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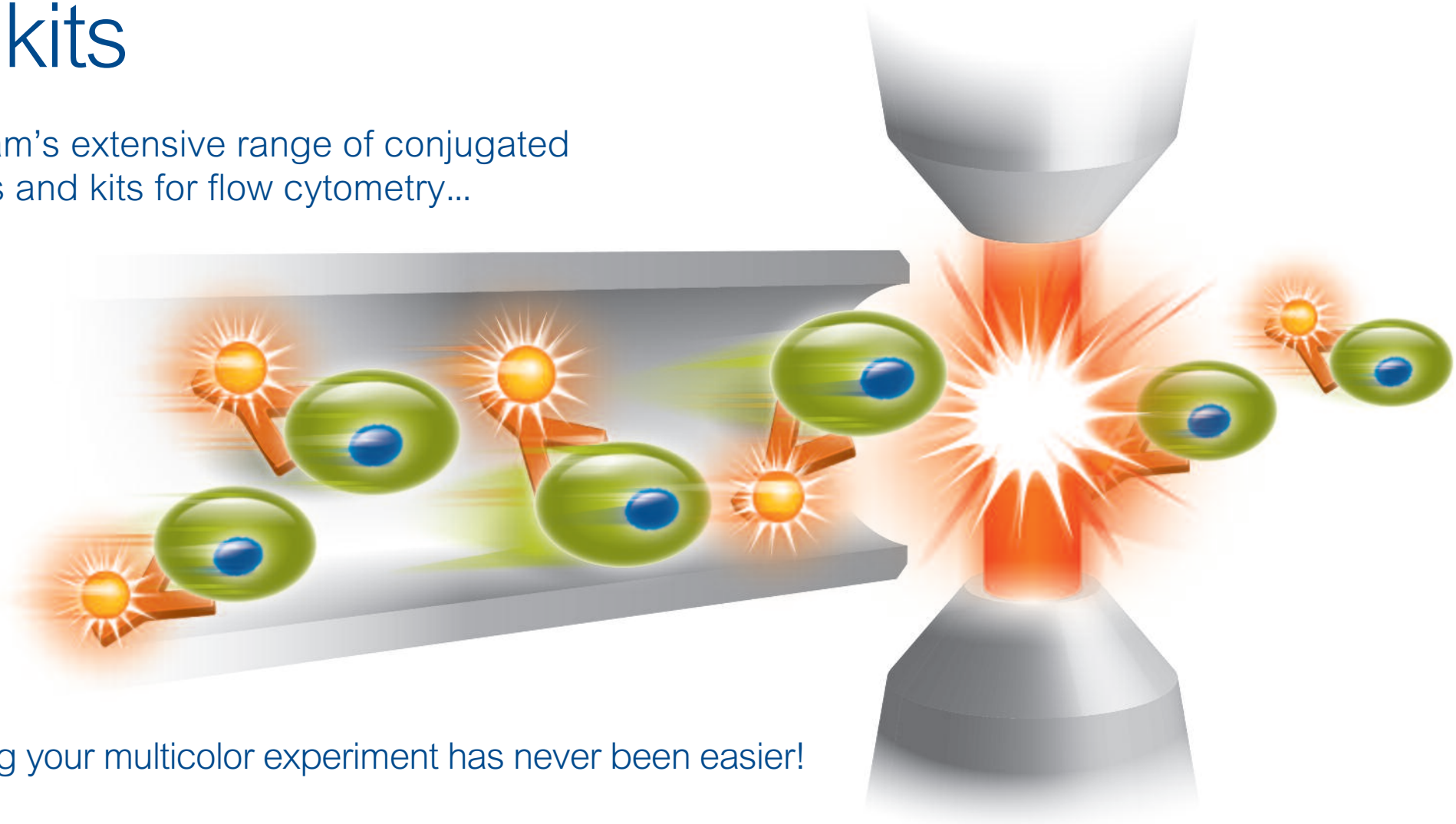

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