# BD Biosciences Human CD Marker Chart

*Reviewed by HLDA*[1]

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| CD | Alternative Name | Ligands & Associated Molecules | T Cell | B Cell | Dendritic Cell | NK Cell | Stem Cell/Precursor | Macrophage/Monocyte | Granulocyte | Platelet | Erythrocyte | Endothelial Cell | Epithelial Cell |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CD1a** | R4, T6, Leu6, HTA1 | β-2-Microglobulin, CD74 | + | + | + | − | | + | − | − | − | | |
| **CD1b** | R1, T6m Leu6 | β-2-Microglobulin | + | + | + | − | | + | − | − | − | | |
| **CD1c** | M241, R7, T6, Leu6, BDCA1 | β-2-Microglobulin | + | + | + | − | | + | − | − | − | | |
| **CD1d** | R3G1, R3 | β-2-Microglobulin, MHC II | + | + | + | − | | | − | − | − | | + |
| **CD1e** | cR2 | β-2-Microglobulin | | | + | | | | − | − | − | | |
| **CD2** | E-rosette R, T11, LFA-2, Leu5 | CD58, CD48, CD59, CD15, LFA-3 | + | + | | + | | | − | − | − | | |
| **CD3** | T3, Leu4 | TCR | + | − | | − | − | − | − | − | − | − | − |
| **CD3d** | δ Polypeptide (TiT3 complex), CD3 delta chain | TCR | + | | | | | | | | | | |
| **CD3e** | T3e, CD3 epsilon chain | TCR | + | | | | | | | | | | |
| **CD3g** | T3G, CD3 gamma chain | TCR | + | | | | | | | | | | |
| **CD4** | L3T4, W3/25, T4, Leu3a | MHC Class II, gp120, IL-16, Lck | + | − | | − | − | + | + | − | − | − | − |
| **CD5** | T1, Tp67, Leu-1, Ly-1 | CD72, BCR, gp35-37, ZAP-70, TCR, CD21 | + | + | | − | | − | − | − | − | | |
| **CD6** | T12, TP120 | gp40, gp90, CD166 (ALCAM) | + | + | | | | − | − | − | − | | |
| **CD7** | gp40, TP41, Leu9 | PI3-Kinase | + | − | | + | + | − | − | − | − | | |
| **CD8a** | Leu2, T8, Lyt2,3 | MHCI, Lck | + | − | | + | − | − | − | − | − | − | − |
| **CD8b** | CD8, Leu2, Lyt3 | MHCI, Lck | + | − | | − | − | − | − | − | − | − | − |
| **CD9** | p24, DRAP-1, MRP-1, Tspan-29 | CD63, CD81, CD82, CD41/CD61, HLA-DR, Integrin β1, PI4-Kinase | + | + | | | − | + | + | + | | + | + |
| **CD10** | CALLA, NEP, gp100, EC 3.4.24.11, MME | | − | + | − | − | − | − | + | − | | + | |
| **CD11a** | LFA-1α, Integrin αL | ICAM-1, 2, 3, 4, CD18 | + | + | | + | | + | + | | − | − | |
| **CD11b** | Integrin αM, CR3, Mo1, C3niR, Mac-1 | iC3b, Fibrinogen, ICAM-1, 2, Factor X | + | + | + | + | | + | + | | − | − | |
| **CD11c** | Integrin αX, p150,95, AXb2, CR4 | iC3b, Fibrinogen, ICAM-1, 4 | + | + | + | + | | + | + | | − | − | |
| **CD11d** | Integrin αD, ITGAD, ADB2 | ICAM3, VCAM1 | | | | | | + | | | | | |
| **CDw12** | p90-120 | | − | − | | + | + | + | + | − | − | | |
| **CD13** | ANPEP, Aminopeptidase N, AAP, APM, LAP1, P150, PEPN, APN, gp150, EC 3.4.11.2 | NGR, HNF1A, DNAK, NAALADL1, MEP1B, VCP, Corona virus Receptor | + | − | | − | + | + | + | − | − | + | + |
| **CD14** | LPS-Receptor | Endotoxin, Lipopolysaccharide (LPS), TLR4, LBP, LY96, TLR2 | − | − | | | | + | + | | | | |
| **CD15** | X-Hapten, Lewis X, SSEA-1, 3-FAL, FUT4 | Selectins | − | − | | − | + | + | + | − | − | − | |
| **CD16** | FCRIIIA, CD16a, Leu11, FcγRIII | IgG Fc | + | − | + | + | | + | + | − | − | | |
| **CD16b** | FCRIIIB, FcγRIIIb | IgG Fc | | | | | | | + | − | − | | |
| **CD17** | Lactosylceramide, LacCer | | + | + | + | − | | + | + | + | − | + | + |
| **CD18** | Integrin β2, CD11a, b, c β-subunit | CD11a, b, c | + | + | + | + | | + | + | + | − | − | |
| **CD19** | B4 | CD21, CD81, CD225, Leu-13, Lyn, Fyn, Vav, PI3-kinase | − | + | + | − | + | − | − | − | − | − | − |
| **CD20** | B1, Bp35 | Lyn, LCK, Fyn, Cell surface protein: 28-30,180-200,50-60 kDa | − | + | − | − | − | − | − | − | − | − | − |
| **CD21** | CR2, EBV-R, C3dR | C3d, CD23, CD19, CD81, Leu13 | + | + | + | − | + | − | − | − | − | − | + |
| **CD22** | BL-CAM, Siglec-2 | p72sky, p53/56lyn, SHP1, PI3-kinase, CD45, PLCγ1 | − | + | − | − | + | − | − | − | − | − | − |
| **CD23** | FceRII, B6, BLAST-2, Leu-20 | IgE, CD21, CD11b, CD11c | + | + | + | − | | + | + | + | − | − | + |
| **CD24** | BBA-1, HSA | CD62P (P-Selectin) | − | + | − | − | − | − | + | − | − | − | + |
| **CD25** | Tac antigen, IL-2Rα, p55, TCGFR | IL-2 | + | + | − | + | − | + | − | − | − | − | − |
| **CD26** | DPP IV ectoenzyme, ADA binding protein, ADCP2, TP103 | Adenosine deaminase, Collagen, CD45 | + | + | − | + | − | + | − | − | − | − | + |
| **CD27** | T14, S152, TP55, TNFRSF7 | CD70, TRAF5, TRAF2 | + | + | − | + | − | − | − | − | − | − | − |
| **CD28** | Tp44, T44 | CD80, CD86, PI3-kinase | + | − | − | − | − | − | − | − | − | − | − |
| **CD29** | Platelet GPIIa, Integrin β1, GP, ITGB1, FNRB, fibronectin receptor beta subunit, VLA-4beta, VLAB | VCAM-1, MAdCAM-1 | + | + | + | + | + | + | + | + | | + | + |
| **CD30** | Ber-H2, Ki-1, CD30L receptor, TNFRSF8, TNR8 | CD153, TRAF1, 2, 3, 5 | + | + | | + | + | + | + | − | − | + | − |
| **CD31** | PECAM-1, endoCAM, Platelet endothelial cell adhesion molecule, PECA1 | CD38, Glycosaminoglycans (GAGs), Integrin αvβ3 | + | + | | + | + | + | + | − | − | + | |
| **CD32a** | FCγRII, Fc-γ receptor 2, FCGR2A, Low affinity immunoglobulin γ Fc receptor II | IgG | − | + | | − | | + | + | + | − | − | |
| **CD32b** | FCG2, FCGR2B, IGFR2 | IgG, INPP5D/SHIP1 | + | + | | − | | + | + | + | − | + | |
| **CD32c** | FCG2, FCGR2C, IGFR2 | IgG | | | | + | | + | + | | | | |
| **CD33** | gp67, SIGLEC-3, Sialic acid-binding Ig-like lectin 3, Myeloid cell surface antigen CD33 | Sugar chains containing sialic acid, α-2,6-linked Sialic acid | − | − | + | − | + | + | + | − | − | − | − |
| **CD34** | gp105-120, Hematopoietic progenitor cell antigen 1 (HPCA1) | L-Selectin, MadCAM-1, CRKL | − | − | − | − | + | − | − | − | − | + | |
| **CD35** | CR1, C3b/C4b receptor, Complement receptor 1, Immune Adherence receptor | C3b, C4b, iC3, iC4 | + | + | + | − | | + | + | − | + | | |
| **CD36** | Platelet glycoprotein 4, Glycoprotein IIIb (GpIIIb), Glycoprotein IV (GPIV), PASIV, Fatty acid translocase (FAT), SCARB3, GP88 | Thrombospondin, Collagen I, IV, V, Long-chain fatty acids | − | − | + | − | + | + | + | + | − | + | − |
| **CD37** | gp52-40, Leukocyte antigen CD37, Tetraspanin-26, TSPAN26, GP52-40 | CD53, CD81, CD82, MHC II | + | + | | − | | + | + | − | − | | |
| **CD38** | ADP-ribosyl cyclase, T10, Cyclic ADP-ribose hydrolase 1 | CD31, Hyaluronic acid, CD3/TcR complex, CD16, HLA Class II | + | + | + | + | + | + | − | | | | |
| **CD39** | Ectonucleoside triphosphate diphosphohydrolase 1 (ENTPD1), ATPdehydrogenase, NTPdehydrogenase-1, Ecto-ATPase 1 | ADP/ATP | + | + | + | + | | + | | − | | + | + |
| **CD40** | Bp50, MGC9013, TNFRSF5, Tumor necrosis factor receptor superfamily member 5, CD40L, CDw40 | CD154, CD40L, TRAP | − | + | + | − | + | + | − | | − | + | + |
| **CD41** | GPIIb, Integrin αIIb, Platelet membrane glycoprotein IIb, ITGA2B, Integrin α2b, Human Platelet Antigen-3 (HPA-3) | Fibrinogen, Fibronectin, von Willebrand factor (vWF) | − | − | − | − | + | − | − | + | − | − | − |
| **CD42a** | GPIX, GP9, Platelet glycoprotein IX | von Willebrand factor (vWF), Thrombin, CD42b,c,d | − | − | − | − | + | − | − | + | − | − | − |
| **CD42b** | GPIbα, Platelet glycoprotein Ib α | von Willebrand factor (vWF), Thrombin, CD42a, c, d | − | − | − | − | + | − | − | + | − | − | − |
| **CD42c** | GPIbβ, Platelet glycoprotein Ib β | von Willebrand factor (vWF), Thrombin, CD42a, b, d | − | − | − | − | + | − | − | + | − | − | − |
| **CD42d** | GPV, Platelet glycoprotein V | von Willebrand factor (vWF), Thrombin, CD42a, b, c | − | − | − | − | + | − | − | + | − | − | − |
| **CD43** | Sialophorin, Leukosialin, Galactoglycoprotein, SPN, GPL115, SPN, LSN | Hyaluronan, EZR, Moesin | + | + | | + | + | + | + | + | − | | |
| **CD44** | ECMRII, H-CAM, Pgp-1, Phagocytic glycoprotein I, Extracellular matrix receptor III, GP90 Lymphocyte homing/adhesion receptor, Hyaluronate receptor, gp90 homing receptor, CDw44, Epican, PGP-1 | Hyaluronan, Ankyrin, Fibronectin, MIP1β, Osteopontin, Collagen, Matrix metalloproteinases (MMPs) | + | + | | + | | + | + | − | + | + | + |
| **CD45** | Leukocyte Common Antigen (LCA), T200, B220, Ly5, Protein tyrosine phosphatase receptor type C (PTPRC) | p56lck, p59fyn, Src kinases | + | + | + | + | + | + | + | − | − | − | − |
| **CD45RA** | PTPRC | p56lck, p59fyn, Src kinases | + | + | + | + | + | + | − | − | − | − | − |
| **CD45RB** | PTPRC | p56lck, p59fyn, Src kinases | + | + | + | + | + | + | + | − | − | − | − |
| **CD45RC** | PTPRC | p56lck, p59fyn, Src kinases | + | + | + | + | + | + | − | − | − | − | − |
| **CD45RO** | CD45R, PTPRC, LCA, Leukocyte common antigen, GP180, LY5, T200 | p56lck, p59fyn, Src kinases | + | + | + | + | + | + | + | − | − | − | − |
| **CD46** | Membrane Cofactor Protein (MCP), Trophoblast leukocyte common antigen, TRA2.10, TLX | SCR2/3/4, Serum Factor 1 protease, CD9, CD29, CD151 | + | + | | + | | + | + | + | − | + | + |
| **CD47** | gp42, IAP, OA3, Neurophilin, MER6 | SIRP, CD61, Thrombospondin | + | + | | + | | + | + | + | + | + | + |
| **CD48** | Blast-1, Hulym3, BCM-1, OX-45, MEM-102 | CD2, lck, fyn, CD229, CD244 | + | + | + | + | + | + | − | − | − | | |
| **CD49a** | VLA-1α, Integrin α1 | Collagen, Laminin | + | − | + | + | | + | − | − | − | − | |
| **CD49b** | VLA-2α, Integrin α2, gPIa, Integrin α2 chain, ITGA2, Platelet GPIa, Collagen receptor, BR | Collagen, Laminin, MMP-1 | + | + | | + | + | + | − | + | − | + | + |
| **CD49c** | VLA-3α, Integrin α3, GAPB3, Galactoprotein B3, MSK18, Very Common Antigen-2 (VCA-2) | Collagen, Laminin, CD9 | + | + | | − | | + | | | − | + | + |
| **CD49d** | VLA-4α, Integrin α4, Integrin α4 chain, Integrin alpha 4, ITGA4, IA4, alpha 4 subunit of VLA-4 | CD106, MAdCAM, Fibronectin, Paxillin | + | + | + | + | + | + | − | − | − | + | |
| **CD49e** | VLA-5α, Integrin α5, Fibronectin receptor | Fibronectin, Invasin, Fibrinogen | + | | + | + | + | + | | | + | + | + |
| **CD49f** | VLA-6α, Integrin α6, gpI, TGA6, ITA6 | Laminin, Invasin | + | | | | + | + | | + | | + | + |
| **CD50** | ICAM-3 | LFA-1, Integrin αd/β2 | + | + | | + | + | + | + | − | − | + | − |
| **CD51** | Integrin αv, VNR-α, Vitronectin-Rα | Fibrinogen, Vitronectin, MMP-2, vWF, TSP | | | | | | + | − | + | | + | |
| **CD52** | CAMPATH-1, HE5, Epididymal secretory protein E52 | | + | + | + | + | | + | + | − | − | | + |
| **CD53** | MOX44, TSPAN25, Tetraspanin-25 | VLA-4, HLA-DR, Integrins | + | + | − | + | + | + | + | − | − | | − |
| **CD54** | ICAM-1, intercellular adhesion molecule 1, BB2, P3.58 | LFA-1, Mac-1, Rhinovirus | + | + | | | | + | | | | + | |
| **CD55** | Decay Accelerating Factor for Complement (DAF), CR, CROM, TC | SCR, CD97, Echoviruses | + | + | | + | + | + | + | + | + | + | + |
| **CD56** | Leu-19, NKH-1, Neural Cell Adhesion Molecule (NCAM) | NCAM-1, Heparin sulfate | + | | | + | | | | | | | |
| **CD57** | HNK1, Leu-7, β-1,3-glucuronyltransferase 1, Glucuronosyltransferase P, galactosylgalactosylxylosylprotein 3-β-glucuronosyltransferase 1 | L-Selectin, P-Selectin, Laminin | + | | | + | | | | | | | |
| **CD58** | LFA-3 | CD2, LFA-2 | + | + | + | + | | + | + | | + | + | + |
| **CD59** | 1F5Ag, H19, Protectin, MACIF, MIRL, P-18 | C8-α, C9, lck, fyn | + | | | + | | + | + | | + | | |
| **CD60a** | GD3 | | + | + | | | | + | + | + | − | | |
| **CD61** | GP IIIa, Integrin β3 | Fibrinogen, PTK2, ITGB3BP, TLN1 and CIB1 | | | | | | + | | + | | + | |
| **CD62E** | E-Selectin, ELAM-1, LECAM-2 | Sialyl Lewis x, a, CLA, CD162 | | | | | | | | | | + | |
| **CD62L** | L-Selectin, LAM-1, LECAM-1, MEL-14, Leu8, TQ1 | CD34, GlyCAM-1, MAdCAM-1 | + | + | | + | | + | + | | | | |
| **CD62P** | P-Selectin, GMP-140, PADGEM | CD162, CD24 | | | | | | | | + | | + | |
| **CD63** | LIMP, MLA1, gp55, NGA, LAMP-3, ME491, OMA81H, TSPAN30, Granulophysin, Melanoma 1 antigen | VLA-3, VLA-6, CD81, CD9, PI4-kinase, CD117, CD82 | + | + | − | + | | + | + | + | | + | |
| **CD64** | FcgRI, Fc-γ Receptor 1, High affinity immunoglobulin γ Fc Receptor I, FcgRIA | IgG | − | − | + | − | + | + | + | − | − | − | − |
| **CD65** | Ceramide-dodecasaccharide, VIM2, Fucoganglioside (Type II) | CD62E (E-Selectin) | − | − | | | | + | + | | | | |
| **CD65s** | Sialylated poly-N-acetyllactosamine, Sialylated-CD65, VIM2, VIM-2, M2 | CD62E (E-Selectin) | − | − | | | | + | + | | | | |
| **CD66a** | CD66, NCA-160, BGP (Biliary glcoprotein), BGP1, BGPI, CEACAM1 | CD62E, CD66c, CD66e, Src kinases | − | − | | − | | | + | − | − | − | + |
| **CD66b** | CD67, CGM6, NCA-95, CEACAM8 | CD66c, e, Src kinases | − | − | | − | | | + | − | − | − | |
| **CD66c** | NCA, NCA-50/90,CEAL, CEACAM6 | CD62E, Galectins, CD66a, b, c, e, Src kinases | − | − | | − | | | + | − | − | − | + |
| **CD66d** | CGM1, CEACAM3 | | − | − | | − | | | + | − | − | − | |
| **CD66e** | CEA CEACAM5 | CD66a, c, e | − | − | | − | | | | − | − | − | + |
| **CD66f** | B1G1, CD66f, DHFRP2, FLJ90598, FLJ90654, PBG1, PSBG1, PSGGA, PSGIIA, SP1 SP-1, PSBG1, B1G1, PBG1, PSGGA | | − | − | | − | | | | − | − | − | + |
| **CD68** | gp110, Macrosialin, SCARD1, Macrophage antigen CD68 | LDL | + | + | + | | + | + | + | − | − | | |
| **CD69** | AIM, EA 1, MLR3, gp34/28, VEA, CLEC2C, BL-AP26, Early activation antigen CD69 | | + | + | | + | | + | + | + | | | |
| **CD70** | TNFSF7, CD27LG, CD27L, Ki-24 | CD27 ligand | + | + | − | − | − | − | − | − | − | − | − |
| **CD71** | TFRC, T9, Transferrin receptor, TFR, TRFR | Transferrin | − | − | − | − | + | | | | − | + | |
| **CD72** | Ly-19.2, Ly-32.2, Lyb2 | CD5 | | + | | − | + | + | − | − | − | | |
| **CD73** | Ecto-5'-nuclotidase, NT5E, E5NT, NT5, NTE, eN, eNT | AMP | + | + | + | − | + | − | − | − | − | + | + |
| **CD74** | DHLAG, HLADG, Ia-γ, li, invariant chain | HLA-DR, CD44 | + | + | + | | | + | | | | + | + |
| **CD75** | ST6GAL1, MGC48859, SIAT1, ST6GALL, ST6N, ST6 β-Galactosamide α-2,6-sialyltranferase, Sialo-masked lactosamine, Carbohydrate of α2,6 sialyltransferase | CD22 | | + | | − | − | + | − | − | + | − | − |
| **CD75S** | α2,6 Sialylated lactosamine | CD22 (proposed) | + | + | | − | − | + | + | − | + | + | + |
| **CD77** | A14GALT (α1,4-Galactosyltransferase), A4GALT1, Gb3S, P(k), P1, PK A4GALT, Pk antigen, BLA, CTH/Gb3A4GALT1, Gb3S, P(k), P1, PK | Shiga toxin, Verotoxin 1, CD19 | − | + | | − | − | − | − | − | − | + | + |
| **CD79a** | IGA (Immunoglobulin-associated α), MB-1 | Ig, CD5, CD19, CD22, CD79b | − | + | | − | − | − | − | − | − | − | − |
| **CD79b** | IGB (Immunoglobulin-associated β), B29 | Ig, CD5, CD19, CD22, CD79a | − | + | | − | − | − | − | − | − | − | − |
| **CD80** | CD28LG, CD28LG1, L AB7, B7, B7-1, BB1, T-lymphocyte activation antigen CD80 | CD28, CD152 (CTLA-4) | + | + | + | − | − | + | − | − | − | − | − |
| **CD81** | TAPA1, S5.7 | Leu-13, CD19, CD21 | + | + | + | + | + | + | | − | − | + | + |
| **CD82** | 4F9, C33, IA4, KAI1, R2, ST6, SAR2, GR15, Tspan-27 | MHC-I, MHC-II, CD4, CD8, Integrin β1 | + | + | | + | + | + | + | + | − | + | + |
| **CD83** | HB15, BL11 | | − | + | + | − | − | − | − | − | − | − | − |
| **CD84** | LY9B, SLAMF5, p75, GR6, hly9-β | CD84 | + | + | + | + | − | + | − | + | − | − | − |
| **CD85A** | ILT5, LIR3, HL9, LILRB3 (Leukocyte immunoglobulin-like receptor, subfamily B (with TM and ITIM domains), member 3, LIR-3, MGC138403, PIRB, XXbac-BCX105G6.7 | HLA class I | + | − | + | − | + | + | + | − | − | − | − |
| **CD85C** | LILRB5 (Leukocyte immunoglobulin-like receptor, subfamily B)(with TM and ITIM domains), member 5, LIR8 | | | | | + | | + | | | | | |
| **CD85D*** | LILRB2 (Leukocyte immunoglobulin-like receptor, subfamily B (with TM and ITIM domains), member 2, LILRB2, ILT4, LIR2, MIR10, MIR-10 | HLA class I | − | − | + | − | − | + | + | − | − | − | − |
| **CD85E** | LILRA3 (Leukocyte immunoglobulin-like receptor, subfamily A (without TM domain), member 3, HM31, HM43, ILT6, LIR-4, LIR4,e3 | | | + | + | + | | + | | | | | |
| **CD85F** | XXbac-BCX403H19.2, CD85, CD85F,LIR9, ILT11, LILRB7 (Leukocyte immunoglobulin-like receptor, subfamily B (with TM and ITIM domains), member 7 | | | | | | | + | | | | | |
| **CD85G** | LILRA4 (Leukocyte immunoglobulin-like receptor, subfamily A (with TM domain), member 4, ILT7, MGC129597, MGC129598 | | | | + | | | + | + | | | | |
| **CD85H** | LILRA2 (Leukocyte immunoglobulin-like receptor, subfamily A (with TM domain), member 2, ILT1, LIR7, LIR-7, XXbac-BCX85G21.2, ILT-1 | | | | | | | | | | | | |
| **CD85I** | LILRA1 (Leukocyte immunoglobulin-like receptor), subfamily A (with TM domain), member 1, LIR-6, LIR6, MGC126563 | | | + | | | | + | | | | | |
| **CD85J*** | LILRB1 (Leukocyte immunoglobulin-like receptor, subfamily B (with TM and ITIM domains), member 1, FLJ37515, ILT2, LIR-1, LIR1, MIR-7, MIR7 | HLA class I | + | + | + | + | − | + | | − | − | − | − |
| **CD85K*** | LILRB4 (Leukocyte immunoglobulin-like receptor, subfamily B (with TM and ITIM domains), member 4, ILT3, LIR-5, HM18, LIR5, LILRB5 | HLA class I | − | − | + | − | + | + | + | − | − | − | − |
| **CD85L** | LILRP1 (Leukocyte immunoglobulin-like receptor pseudogene 1), ILT9, LILRA6P | | + | + | + | + | | + | | | | | |
| **CD85M** | LILRP2 (Leukocyte immunoglobulin-like receptor pseudogene 2), ILT10, LILRA5 | | + | + | + | | | + | | | | | |
| **CD86** | B7-2/B70, CD28LG2, LAB72, MGC34413 | CD28, CD152 (CTLA-4) | + | + | + | − | − | + | − | − | − | + | − |
| **CD87** | Upar, PLAUR, URKR | uPA, Pro-UPA, Vitronectin | + | − | | + | − | + | + | − | − | + | − |
| **CD88** | C5R1, C5aR, C5AR, C5A | C5a/C5a(desArg), Anaphylatoxin | − | − | + | − | − | + | + | − | − | + | + |
| **CD89** | FCAR | IgA1, IgA2 | − | − | | − | | + | + | − | − | − | − |
| **CD90** | Thy-1, CDw90 | CD45, lck, fyn, P100 | − | − | | − | + | − | − | − | − | + | − |
| **CD91** | LRP1, α2M-R, α2MR, APOER, APR, LRP | RAP, α2M, apoE, Lactoferrin, LDLs | − | − | | − | | + | − | − | − | − | + |
| **CD92** | SLC44A1, CTL1, CHTL1, RP11-287A8.1, p70 | | + | + | | | | + | + | − | − | + | + |

| CD | Alternative Name | Ligands & Associated Molecules | T Cell | B Cell | Dendritic Cell | NK Cell | Stem Cell/Precursor | Macrophage/Monocyte | Granulocyte | Platelet | Erythrocyte | Endothelial Cell | Epithelial Cell |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CD93** | C1QR1,C1qRP, MXRA4, C1qR(P), Dj737e23.1, GR11 | | − | − | − | − | − | + | + | − | − | + | − |
| **CD94** | KLRD1, Kp43 | HLA class I, NKG2-A, p39 | + | − | | + | | − | − | − | − | − | − |
| **CD95** | CD178, FASLG, APO-1, FAS, TNFRSF6, CD95L, APT1LG1, APT1, FAS1, FASTM, ALPS1A, TNFSF6, FASL | CD178 (Fas ligand) | + | + | | + | | + | + | − | − | | |
| **CD96** | TACTILE, MGC22596 | | + | − | | + | | − | − | − | − | | |
| **CD97** | TM&LN1, BL-KDD/F12 | CD55 (DAF) | + | + | + | + | | + | + | − | − | | |
| **CD98** | SLC3A2, 4F2, 4F2HC, 4T2HC, MDU1, NACAE, FRP-1, RL-388 | Actin | + | + | | + | | + | + | + | − | + | + |
| **CD99** | MIC2, E2 antigen, MIC2X, MIC2Y,HBA71, MSK5X | | + | + | | + | + | + | − | + | + | + | + |
| **CD99R** | CD99 Mab restricted | | + | − | | + | − | + | | − | | | |
| **CD100** | SEMAJ, coll-4, C9orf164, FLJ33485, FLJ34282, FLJ39737, FLJ46484, M-sema-G, MGC169138, MGC169141, SEMA4D, SEMAJ | CD45, Serine kinase | + | + | − | + | − | + | + | − | − | − | |
| **CD101** | IGSF2, P126, V7, BA27, BPC#4, P126, V7-LSB | | + | − | + | − | | + | + | − | − | | |
| **CD102** | ICAM-2, Ly60 | LFA-1, CD11b/CD18, Integrin αLβ2 | + | + | | | | + | + | | − | + | |
| **CD103** | HML-1, Integrin αE, ITGAE, OX62, HML1 | E-Cadherin, Integrin β7 | + | − | | − | | − | − | − | − | − | |
| **CD104** | Integrin β4, TSP1180, ITGB4, TSP-180 | Laminins (I,II,IV,V), CD49F, Integrin α6 | − | − | | − | + | − | − | − | − | + | + |
| **CD105** | Endoglin, HHT1, ORW, SH-2 | TGF-β1, TGF-β3 | − | − | | − | + | + | − | − | − | + | |
| **CD106** | VCAM-1, INCAM-100 | Integrin α4β1, VLA-4 | − | − | − | − | | − | − | − | − | + | |
| **CD107a** | LAMP-1, LAMPA, CD107a, LGP120 | | + | − | | − | | | + | + | − | + | |
| **CD107b** | LAMP-2, LAMPB | | + | − | | − | | | + | + | − | + | |
| **CD108** | SEMA7A, JMH blood group antigen | CD232, Tyrosine kinases | + | + | | | | | − | − | + | | |
| **CD109** | 8A3, E123 7D1,150kD TGF-β-1-binding protein, Platelet-specific Gov antigen | | + | + | | − | + | + | − | + | − | + | |
| **CD110** | TPO-R, MPL, C-MPL | TPO, JAK2 | − | − | − | − | + | − | − | + | − | + | + |
| **CD111** | PVRL1, HveC, PRR1, Nectin1, HIgR,CLPED1 | Nectin3, Afadin gD | − | − | | | + | + | − | + | + | + | + |
| **CD112** | HveB, PRR2, PVRL2, Nectin2 | PRR3, Afadin, CD112 | − | | | | + | + | − | + | − | + | + |
| **CD113** | PVRL3, Nectin3, PRR3 | Afadin, MLLT4, PARD3 | | | | | | | | | | | + |
| **CD114** | CSF3R, G-CSFR, HG-CSFR | G-CSF, Jak1, Jak2 | − | − | | − | + | + | + | + | − | + | |
| **CD115** | c-fms, CSF-1R, M-CSFR, FIM2, FMS | CSF-1, Phosphotyrosine binding proteins | − | | − | − | + | + | − | − | − | | |
| **CD116** | GM-CSFRα, CDw116, CSF2R, CSF2RAX, CSF2RAY, CSF2RX, CSF2RY, GM-CSF-R-α, GMCSFR, GMR, MGC3848, MGC4838 | GM-CSF, CD131 | − | − | + | − | | + | + | − | − | | |
| **CD117** | c-KIT, SCFR, PBT | SCF, MGF, KL, PI3-kinase | − | − | − | − | + | − | − | − | − | − | |
| **CD118** | LIFR, gp190, SJS2, STWS, SWS | IFN-α, IFN-β | | | | | | | | | | | + |
| **CD119** | IFNγR, IFNγRa | IFNγR, IFNγR1 | + | + | | + | | + | + | | − | + | |
| **CD120a** | CD120a, FPF, MGC19588, TBP1, TNF-R, TNF-R-I, TNF-R55, TNFAR, TNFR1, TNFR55, TNFR60, p55, p55-R, p60 | TNF, TRADD, TRAF, RiP, Ltα | + | + | + | + | | + | + | | − | + | + |
| **CD120b** | TNFRII, p75, TNFR p80 | TNF, TRADD, TRAF, RiP, LTα | + | + | + | + | | + | + | | − | + | + |
| **CD121a** | Type 1 IL-1R,CD121A, D2S1473, IL-1R-α, IL1R, IL1RA, P80 | IL-1α and IL-1β, IL1RA | + | − | − | − | | + | − | − | − | + | − |
| **CD121b** | Type 2 IL-1R | IL-1β, IL-1α, IL1RA | + | + | | | | + | − | − | − | − | − |
| **CD122** | IL2Rβ, p70-75 | IL-2, IL-15, CD25, CD132, Syk, Lck, Jak1, Stat5 | + | + | | + | | + | − | − | − | − | |
| **CD123** | CD123, IL3R, IL3RAY, IL3RX, IL3RY, MGC34174, hIL-3Ra | IL-3, CD131 | − | − | + | | + | − | + | | | + | |
| **CD124** | IL-4Rα | IL-4, IL-13, CD132, Jak1, Fes, Stat6, IRS-2 | + | + | | − | + | + | − | − | − | − | + |
| **CD125** | IL-5Rα | CDw125, HSIL5R3, IL5R, MGC26560 | − | + | | − | | − | + | − | − | − | |
| **CD126** | IL-6Rα | IL-6, CD130 | + | + | − | − | + | − | − | | | | |
| **CD127** | p90, IL-7R, IL-7Rα | IL-7, CD132, fyn, lyn, Jak1, PI3-kinase, Lck | + | − | | | + | + | − | − | − | − | |
| **CD129** | IL-9Rα | IL-9 | + | | | | | | | | | | + |
| **CD130** | gp130, IL6ST, IL6-β or CD130 | Oncostatin M, LIF, IL-6, IL-11, CNF | + | + | | + | + | + | + | − | | + | |
| **CD131** | CSF2RB, IL3RB, IL5RB, CDw131 | CD123, CD125, CD116, JAK2, Shc, Grb2 | − | − | | − | + | + | + | | | | |
| **CD132** | Common γ chain, IL-2Rγ | CD25, CD122, CD124, CD127, IL-9R, JAK3, JAK1, Syk, lck | + | + | | + | | + | + | − | | | |
| **CD133** | AC133, PROML1, Prominin 1, Hematopoietic stem cell antigen | | − | − | − | − | + | − | − | − | − | + | + |
| **CD134** | OX40, TNFRSF4 | OX40 ligand | + | | − | | | − | | | | | |
| **CD135** | Flt3, Flk2, STK1 | FL (Flt3 ligand) | − | − | − | − | + | − | − | − | − | | |
| **CD136** | MSP-R, RON, p158-ron | MSP, HGFI, Shc, PLC-γ | | | | | | + | | | | | + |
| **CD137** | 4-1BB, ILA, TNFRSF9 | 4-1BB ligand | + | + | | − | | + | − | | | | + |
| **CD138** | Syndecan-1, Heparan sulfate proteoglycan | Collagen I, III, V, Fibronectin, TSP | − | + | | − | + | − | − | − | − | + | + |
| **CD139** | None | | − | + | + | − | − | + | + | | + | | |
| **CD140a** | PDGF α Receptor | PDGF | − | − | | − | | − | − | + | − | + | |
| **CD140b** | PDGF β Receptor | PDGF | − | − | | − | | − | − | − | − | + | |
| **CD141** | Thrombomodulin, Fetomodulin | Thrombin, Protein C, TAFI | − | − | | − | − | + | + | + | | + | + |
| **CD142** | Tissue factor, Thromboplastin, F3 | Factor VIIa, Factor Xa/TFPI | − | − | | − | | + | − | − | | + | + |
| **CD143** | ACE, Peptidyl dipeptidase A, Kininase II, DCP, DCP1 | ANG-1, Bradykinin | − | − | | − | | + | − | − | − | + | + |
| **CD144** | VE-Cadherin, Cadherin-5 | β-Catenin, p120 CAS, Plakoglobin | − | − | − | − | | − | − | − | − | + | − |
| **CDw145** | None | | | | | − | | − | − | − | − | + | + |
| **CD146** | Muc 18, S-endo, MCAM, Mel-CAM | | + | − | | − | | − | − | − | − | + | |
| **CD147** | Basigin, EMMPRIN, M6, OX47, TCSF | | + | + | | + | | + | + | + | + | + | |
| **CD148** | HPTP-η, p260, DEP-1, SCC1 | | + | | + | | | + | + | + | | − | |
| **CD150** | SLAM, IPO-3 | Tyrosine phosphatase CD45, CD150 | + | + | + | − | | − | − | − | − | + | |
| **CD151** | PETA-3, SFA-1 | Integrins α3, α6 | − | − | − | | + | − | − | + | | + | + |
| **CD152** | CTLA-4 | CD80, CD86, PI3-kinase, PTP1D | + | + | − | − | | − | − | − | | | |
| **CD153** | CD30L, TNSF8 | CD30 | + | | − | | | + | + | | | | |
| **CD154** | CD40L, gp39, TRAP-1, T-BAM, IMD3 | CD40 | + | − | − | − | | − | | | − | − | |
| **CD155** | PVR, PVS, TAGE4, HVED | | | | − | | | + | | − | | | |
| **CD156a** | CD156, ADAM8, MS2 | Myeloid | | | | | | + | + | | | | |
| **CD156b** | TACE, ADAM17, cSVP | pro-TNF, pro-TGFα, MAD2 | + | − | + | − | − | + | + | − | − | + | − |
| **CD156C** | ADAM10, MADM, kuz | | | | | | | + | | | | | |
| **CD157** | Mo5, BST-1 | NAD, Cyclic ADP-ribose | | | + | | + | + | + | | | + | |
| **CD158a** | KIR2DL1, p58.1, NKAT1 | HLA-Cw4, 2, 5, 6 | + | | | + | | | | | | | |
| **CD158b1** | KIR2DL2, p58.2, NKAT6 | HLA-Cw3, 1, 7, 8 | + | | | + | | | | | | | |
| **CD158b2** | KIR2DL3, p58.3, NKAT2 | HLA-Cw3, 1, 7, 8 | + | | | + | | | | | | | |
| **CD158d** | KIR2DL4, KIR103 | HLA-Bw4 | | | | + | | | | | | | |
| **CD158e1/e2** | KIR3DLI/S1, p70, NKAT3, NKB1 | HLA-Bw4 | + | | | + | | | | | | | |
| **CD158f** | KIR2DL5 | | + | | | + | | | | | | | |
| **CD158g** | KIR2DS5 | | + | | | + | | | | | | | |
| **CD158h** | KIR2DS1, p50.1 | HLA-C | + | | | + | | | | | | | |
| **CD158i** | KIR2DS4, p50.3 | HLA-C | + | − | | + | | | | | | | |
| **CD158j** | KIR2DS2, p50.2 | HLA-C | + | | | + | | | | | | | |
| **CD158k** | KIR3DL2, p140 | HLA-A | + | | | + | | | | | | | |
| **CD159a** | NKG2A | CD94/CD159a heterodimer binds to HLA-E | + | | | + | | | | | | | |
| **CD159c** | NKG2C | C type Lectin superfamily member | | | | + | | | | | | | |
| **CD160** | BY55, NK1, NK28 | MHC class I | + | − | | + | | | | | | | |
| **CD161** | NKR, NKRP1A | | + | − | − | + | | | − | − | − | − | − |
| **CD162** | PSGL-1 | Selectins | + | + | | | + | + | + | − | − | − | |
| **CD163** | M130, GHI/61, RM3/1 | Hemoglobin | − | − | − | | | + | − | − | − | − | − |
| **CD164** | MGC-24, MUC-24 | | + | + | | | + | + | − | | − | − | + |
| **CD165** | AD2, gp37 | | | | | | − | + | − | + | − | | + |
| **CD166** | ALCAM, KG-CAM, SC-1, BEN, DM-GRASP | CD6, CD166, NgCAM | + | + | | | | + | − | | | + | + |
| **CD167a** | DDR1, trkE, cak | ShcA, FRS2, Collagens | | + | + | | | | | | | | + |
| **CD168** | RHAMM, IHABP, HMMR | Ras, Src, Erk, Actin, Calmodulin, MAPKK, Hyaluronic acid | − | − | + | | + | + | | | | | |
| **CD169** | Sialoadhesin, Siglec-1 | CD227, CD206, CD43, α2, 3-Sialylated ligands | | | + | | | + | | | | | |
| **CD170** | Siglec-5 | Sialylated glycans | − | + | + | − | | + | + | | | | |
| **CD171** | L1CAM, HSAS, HSAS1, MASA, MIC5, N-CAML1, S10, SPG1, NILE | CD171, Neurocan, Phosphocan, Laminin, CD9, CD24, CD56, Axonin-1,CD51/61, CD41/61, CD49e/CD29, α-9, Ankyrins, Kinases | + | + | + | | | + | + | | | + | + |
| **CD172a** | BIT, MFR, MYD-1, P84, SHPS-1, SHPS1, SIRP, SIRPα, SIRPα2 | CD47, PTPN11 | | | + | | + | + | + | | | | |
| **CD172b** | SIRPβ | TYROBP | | | + | | | + | | | | | |
| **CD172g** | SIRPγ, SIRP-B2, bA77C3.1 | | + | | | + | | | | | | | |
| **CD173** | Blood group H type 2, FUT1 | | | | | − | + | | | | + | + | |
| **CD174** | Lewis Y, FUT3, Les, FT3B | | | | | − | + | | | | | | + |
| **CD175** | Tn | | − | + | | − | + | | | | | | + |
| **CD175s** | Sialyl-Tn (s-Tn) | | − | + | | − | + | | | | | + | + |
| **CD176** | TF Antigen | | | − | | | + | | | | + | + | + |
| **CD177** | NB1, HNA-2a, NB1gp, Neutrophil-specific antigen 1, PRV1 | | | | | | | | + | | | | |
| **CD178** | Fas Ligand, FASL, CD95L, TNFSF6, APT1LG1 | DcR3, CD95 (Fas), TNFRSF6B, PTPN12, FADD, TNFRSF1A | + | − | | + | | − | + | − | − | + | + |
| **CD179a** | VpreB, IGVPB, VPREB1, Immunoglobulin iota chain | CD179b, Ig μ heavy chain | − | + | − | − | − | − | − | − | − | − | − |
| **CD179b** | lambda5, 14.1, IGL5, IGGL1 | CD179a, Ig μ heavy chain | − | + | − | − | − | − | − | − | − | − | − |
| **CD180** | RP105, Bgp95, Ly64, Ly78, | MD-1 | | + | + | | | + | | | | | |
| **CD181** | (formerly CD128a) CXCR1, IL-8Rα | IL-8 | + | | | | | + | + | | | | |
| **CD182** | (formerly CD128b) CXCR2, IL-8Rβ, CMKAR2, IL8R2 | IL-8 | + | | | | | + | + | | | | |
| **CD183** | CXCR3, GPR9, CKR-L2, CMKAR3, IP10, Mig-R, TAC | IP10, Mig, I-TAC | + | | | + | + | | + | | | | |
| **CD184** | CXCR4, NPY3R, Fusin, CMKAR4, LESTR, HM89, FB22, LCR1 | SDF-1, viral MIP-2, CXCL12 | + | + | + | − | | + | + | | | + | |
| **CD185** | CXCR5, BLR1, MDR15, MGC117347 | CXCL13, CCL13 | + | + | + | + | | − | − | | | | |
| **CD186** | CXCR6, STRL33, TYMSTR, BONZO | | + | | | | | | | | | | |
| **CD191** | CCR1, CKR1, CD191, CKR-1, HM145, CMKBR1, MIP1αR, SCYAR1 | MIP-1α, RANTES, MCP-3, MIP-5, LD78 | + | | | | + | + | | | | | |
| **CD192** | CCR2, CKR2, CCR2A, CCR2B, CKR2A, CKR2B, CMKBR2, MCP-1-R, CC-CKR-2, FLJ78302, MGC103828, MGC111760, MGC168006 | MCPs | + | + | | | | + | + | | | + | |
| **CD193** | CCR3, CKR3, CMKBR3, CC-CKR-3, MGC102841 | CCL11, CCL26, MCP-3 (CCL7), MCP-4 (CCL13), RANTES(CCL5) | + | | + | | | | + | | | | + |
| **CD194** | CCR4, CC-CKR-4, CKR4, CMKBR4, ChemR13, HGCN | MIP-1, RANTES, TARC, MCP-1 | + | | | | | + | | + | | | |
| **CD195** | CCR5, CMKBR5, IDDM22, CC-CKR-5, FLJ78003 | MIP-1a, 1b, MCP-2, RANTES | + | − | | − | | + | + | − | − | − | |
| **CD196** | CCR6, BN-1, DCR2, DRY6, CKRL3, GPR29, CKR-L3, CMKBR6, GPRCY4, STRL22, CC-CKR-6 | MIP-3a | + | + | + | − | | − | − | | | | |
| **CD197** | CCR7 (formerly CDw197), BLR2, EBI1, CMKBR7 | CCL19/ECL, CCL21 | + | + | + | | | | | | | | |
| **CDw198** | CCR8,CKR-L1, CKRL1, CMKBR8, CMKBRL2, CY6, GPR-CY6, TER1 | I-309, TARC, MIP-1b | + | | | | | + | | | | | |
| **CDw199** | CCR9, GPR28, GPR-9-6 | CCL25 | + | | | | | | | | | | |
| **CD200** | OX2, MRC, MOX1, MOX2 | CD200R1 | − | + | + | − | + | − | − | − | − | + | |
| **CD201** | EPCR, CCCA, CCD41, MGC23024, bA42O4.2, PROCR | Protein C | | | | | + | | | | | + | |
| **CD202b** | TEK, Tie2, VMCM, TIE-2, VMCM1 | Angiopoietin-1, 2, and 4 | | | | | | | | | | + | |
| **CD203c** | PDNP3, B10, PDIβ, E-NPP3 | cAMP, NAD, Nucleoside phosphates | | | | | + | | + | | | | |
| **CD204** | MSR, SR-A, phSR1, phSR2, SCARA1, MSR1 | LDL, β-Amyloid fibrils | | | | | | + | | | | | |
| **CD205** | DEC-205, CLEC13B, GP200-MR6, LY75 | MIR98 | + | + | + | | + | + | | | | | |
| **CD206** | Mannose receptor C type-1 (MRC1), Macrophage mannose receptor (MMR), C-type Lectin domain family 13 member D (CLEC13D) | Glycoforms of sialoadhesin (CD169) and CD45, Bacterial cell wall molecules, Viral glycoproteins, Yeast proteins, Chitin, Lysosomal hydrolases, Plant glycoproteins, Neoglycoproteins, Lutropin, Chondroitin sulfate | | | + | | | + | | | | + | + |
| **CD207** | Langerin, C-type Lectin domain family 4 member K (CLEC4K) | Mannose-bearing glycoproteins and glycolipids on microbial pathogens, including HIV gp120 | | | + | | | | | | | | |
| **CD208** | Lysosomal-associated membrane protein 3 (LAMP3), DC-LAMP, DCLAMP, LAMP, TSC403 | | | | + | | | | | | | | |
| **CD209** | Dendritic cell-specific ICAM-3-grabbing non-integrin (DC-SIGN), DC-SIGN1, CDSIGN, C-type lectin domain family 4 member L (CLEC4L), HIV gp120-binding protein | CD50 (ICAM-3), CD102 (ICAM-2), Mannose-bearing glycoproteins on several pathogens including HIV gp120 | | | + | | | + | | | | + | |
| **CD210a** | Interleukin 10 Receptor A (IL-10RA, IL-10R1), CDw210a | IL-10, vIL-10 | + | + | − | − | | + | − | | | | |
| **CD210b** | Interleukin 10 Receptor B (IL-10RB, IL-10R2), CDw210b, CRF2-4, CRFB4 | IL-10 and vIL-10 | + | + | + | + | | + | | | | | |
| **CD212** | Interleukin 12 receptor β1 chain (IL-12β1), IL-12β, CD212b1 | IL-12, IL-23, associates with IL-12Rβ2 or IL-23R to form high-affinity receptors | + | + | − | + | | − | − | | | | |
| **CD213a1** | Interleukin 13 receptor α1 chain (IL-13Rα1), NR4 | IL-13, IL-4, associates with IL-4Rα to form receptors | | + | + | | | + | | | | + | |
| **CD213a2** | Interleukin 13 receptor α2 chain (IL-13Rα2), interleukin-13-binding protein (IL13BP) | IL-13 | | + | | | | + | | | | | + |
| **CD215** | Interleukin 15 receptor alpha chain (IL-15RA) | IL-15 | + | + | − | − | | − | − | | | | |
| **CD217** | Interleukin 17 receptor A (IL-17RA), IL-17R, CDw217 | IL-17A, vIL-17, IL-17F (weak binding), associates with IL-17RC to form receptor for IL-17A, IL-17F, and IL-17A/F heterodimers, associates with IL-17RB to form receptor for IL-17E (IL-25) | + | + | + | + | + | + | + | | | + | + |
| **CD218a** | Interleukin 18 receptor 1 (IL-18R1), IL-18RA, IL-18Rα, IL1 receptor-related protein (IL-1Rrp), IL-R5, CDw218a | IL-18, associates with IL-18Rβ to form high-affinity IL-18 receptor | + | + | + | + | | | + | | | + | |
| **CD218b** | Interleukin 18 receptor β (IL-18Rβ), IL-18 receptor accessory protein (IL-18RAP, IL-18RAcP), IL-1R accessory protein-like (IL-1RAcPL), IL-1R7, CDw218b | Associates with IL-18Rα to form high-affinity IL-18 receptor | + | + | + | + | | | + | | | | |

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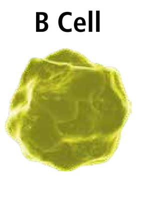
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CD220** | Insulin receptor (INSR), IR | Insulin, IGF-2 | + | + | + | + | + | + | + | | | + | + |
| **CD221** | Insulin-like growth factor 1 receptor (IGF1R), IGF-1R, type I IGF receptor (IGF-IR), JTK13 | Insulin-like growth factor 1 (IGF-I), IGF-II, Insulin | + | + | + | + | + | + | + | | | + | + |
| **CD222** | Cation-independent mannose-6-phosphate receptor (M6P-R, CIM6PR, CIMPR, CI-MPR), Insulin-like growth factor 2 receptor (IGF2R, IGFIIR, IGF-IIR), MPR1, MPRI | IGF-II, TGF-β latency-associated peptide (LAP), Proliferin, Prorenin, Plasminogen, Leukemia inhibitory factor (LIF), Herpes simplex virus, Thyroglobulin, Retinoic acid, Cathepsin B, D, L, Mannose-6-phosphate (M6P)-containing proteins, CD87 | + | + | + | + | + | + | + | | | + | + |
| **CD223** | Lymphocyte activation gene 3 (LAG3, LAG-3), FDC protein | MHC class II, TCR-CD3 complex | + | − | − | + | + | | | | | | |
| **CD224** | γ-Glutamyl transferase 1 (GGT1), γ-Glutamyl transpeptidase 1 (GGTP), GGT, GTG, EC2.3.2.2 | Glutathione, GSH, Leukotriene C4, GSNO | + | + | | | + | + | + | | | + | + |
| **CD225** | Interferon-induced transmembrane protein 1 (IFITM1), Interferon-induced protein 17 (IFI17), Interferon-inducible protein 9-27 (9-27), Leu13, fragilis2 | CD21, CD19, TAPA-1, CD81 | + | + | | + | + | | | | | + | |
| **CD226** | DNAX accessory molecule 1 (DNAM-1), Platelet and T-cell activation antigen 1 (PTA-1), T lineage-specific activation antigen 1 antigen (TLiSA1) | CD112, CD155, LFA-1 when phosphorylated by PKC | + | + | | + | + | + | − | + | − | | − |
| **CD227** | Mucin 1 (MUC1, MUC-1), DF3 antigen, H23 antigen, Peanut-reactive urinary mucin (PUM), Polymorphic epithelial mucin (PEM), Epithelial membrane antigen (EMA), Tumor-associated mucin, Episialin | CD54, CD169, Selectins, Grb2, β-Catenin, GSK-3β | + | + | + | | + | + | | | | | + |
| **CD228** | Melanotransferrin (MT, MTF1), p97 Melanoma antigen (p97, MAP97), Mfi2, gp95 | Iron, Plasminogen, pro-UPA | | | | | + | | | | | + | |
| **CD229** | Lymphocyte antigen 9 (Ly9), T-lymphocyte surface antigen Ly-9, Signaling lymphocyte activation molecule family member 3 (SLAMF3), Lgp100, T100 | CD229 (homophilic binding), SAP, Grb2 | + | + | + | + | + | − | − | − | − | | |
| **CD230** | Prion protein (PrP, PRNP), Major prion protein, prP27-30, prP33-35C, PrPc | CD230 (homophilic binding), N-CAM (CD56) | + | + | + | + | + | + | + | | | + | + |
| **CD231** | Tetraspanin 7 (TSPAN7), T-cell acute lymphoblastic leukemia-associated antigen 1 (TALLA-1), Transmembrane 4 superfamily member 2 (TM4SF2), Membrane component X chromosome surface marker-1 (MXS1), A15 | | T-ALL | | | | | | | | | | |
| **CD232** | Plexin C1 (PLXNC1), Virus-encoded semaphorin protein receptor (VESPR, VESP-R) | Semaphorin 7A (CD108), Poxvirus semaphorin A39R | | + | + | + | | + | + | | | | |
| **CD233** | Solute carrier family 4 anion exchanger member 1 (SLC4A1), Band 3, Anion exchanger 1 (AE1), Diego blood group, Erythroid protein band 3 (EPB3) | Glycophorin A, Ankyrin, Hemoglobin, Glycolytic enzymes | − | − | − | − | | − | − | | + | | |
| **CD234** | Duffy antigen/chemokine receptor (DARC), Duffy blood group antigen (Dfy, FY), Fy-Glycoprotein, Glycoprotein D | CXCL1 (MGSA), CXCL8 (IL-8), CCL2 (MCP-1), CCL5 (RANTES), Malarial parasites Plasmodium knowlesi and P. vivax | − | − | − | − | | − | − | | + | + | + |
| **CD235a** | Glycophorin A (GYPA), Sialoglycoprotein α, Sialoglycoprotein A, MN blood group antigen, PAS-2 | CD170, Influenza virus, Plasmodium falciparum erythrocyte binding antigen EBA-175 | − | − | − | − | + | − | − | | + | | |
| **CD235b** | Glycophorin B (GYPB), Sialoglycoprotein δ, ss-Active sialoglycoprotein, SS blood group antigen, PAS-3 | | | | | | + | | | | + | | |
| **CD236** | Glycophorin C & D (GYPC & GYPD), Glycophorin C/D, Gerbich blood group antigen, CD236R (glycophorin C only) | Plasmodium falciparum erythrocyte binding protein 2 (PfEBP-2), p55, band 4.1 | | | | | + | | | | + | | |
| **CD236R** | Glycophorin C, GYPC | Plasmodium falciparum erythrocyte binding protein 2 (PfEBP-2), p55, band 4.1 | | | | | + | | | | + | | |
| **CD238** | Kell blood group glycoprotein (Kel), Kell blood group antigen, Endothelin-3-converting enzyme (ECE3) | Big endothelin-3 (intermediate precursor of endothelin-3) | | | | | + | | | | + | | |
| **CD239** | Basal cell adhesion molecule (BCAM, B-CAM), Lutheran blood group glycoprotein, Lutheran blood group antigen (Lu) | α5 chain of Laminin 10/11 | | | | | | | | | + | + | + |
| **CD240** | Rh blood group system, CD240CE (Rh30CE, Cc & Ee blood antigens), CD240D (Rh30D, D blood antigen), CD240DCE (Rh30D/CE) | CD241, CD242, CD47, CD235b | | | | | + | | | | + | | |
| **CD241** | RhAG, Rh50A, RH2 | ANK1 | − | − | − | − | − | − | − | − | + | | |
| **CD242** | ICAM4, LW | LFA-1, Mac-1, VLA-4 | − | − | − | − | + | − | − | − | + | + | |
| **CD243** | ABC20, CD243, CLCS, GP170, MDR1, P-gp, PGY1 | | − | − | | − | + | − | − | − | − | | |
| **CD244** | 2B4, NAIL, NKR2B4, Nmrk, SLAMF4 | CD48 | + | − | + | + | | + | + | | | | |
| **CD245** | p220/240 | Lymphocyte receptor | + | + | | + | | + | + | + | | | |
| **CD246** | ALK, TFG/ALK, NBLST3 | Pleiotrophin | + | | | | | | | | | + | |
| **CD247** | CD3-ζ, CD3H, CD3Q, CD3Z, T3Z, TCRZ | Janus kinase 3, Protein unc-119 homolog | + | | | + | | | | | | | |
| **CD248** | TEM1, Endosialin, CD164L1, MGC119478, MGC119479 | Collagen I/IV Fibronectin | | | | | | | | | | + | |
| **CD249** | APA, gp160, EAP, ENPEP | | | | | | | | | | | + | + |
| **CD252** | TNFSF4, GP34, OX4OL, TXGP1, CD134L, OX-40L, OX40L | CD134 (OX40) | | + | + | | | | | | | + | |
| **CD253** | TNFSF10, TL2, APO2L, TRAIL, Apo-2L | Apo2 | + | + | | | | + | | | | | |
| **CD254** | TRANCE, RANKL, TNFSF11, ODF, OPGL, sOdf, OPTB2, hRANKL2 | RANK | + | | | | | | | | | | |
| **CD256** | TNFSF13, APRIL, TALL2, TRDL-1, UNQ383/PRO715 | TNFRSF17/BCMA, TACI | + | | + | | | + | + | | | | |
| **CD257** | TNFSF13b, BAFF, BLYS, TALL1, THANK, TNFSF20, ZTNF4 | TNFRSF13B/TACI, TNFRSF17/BCMA, TNFRSF13C/BAFFR | + | + | + | + | | + | + | | | | |
| **CD258** | TNFSF14, LTg, TR2, HVEML, LIGHT | TNFRSF14/HVEML | + | + | + | − | | + | + | | | | |
| **CD261** | TNFRSF10a, APO2, DR4, MGC9365, TRAILR1 | TRAIL, DAP3 | + | + | − | + | | + | + | | | | |
| **CD262** | TNFRSF10b, KILLER/DR5, TRAILR2, TRICK2, TRICK2A, TRICK2B, TRICKB, ZTNFR9 | TNFSF10, TRAIL | + | + | − | + | | + | + | | | | |
| **CD263** | TNFRSF10c, DCR1, LIT, TRAILR3, TRID | TRAIL | + | + | | + | | + | + | | | | |
| **CD264** | TNFSF10d, DCR2, TRAILR4, TRUNDD | TRAIL | + | + | − | + | | + | + | | | | |
| **CD265** | TNFRSF11a, EOF, FEO, ODFR, OFE, PDB2, RANK, TRANCER | TNFSF11, RANKL, TRANCE, OPGL | + | | + | | | + | | | | | |
| **CD266** | TNFRSF12A, FN14, TWEAKR, TWEAK-R | TWEAK | | | | | | | | | | + | |
| **CD267** | TNFRSF13B, CVID, TACI, FLJ39942, MGC39952, MGC133214, TNFRSF14B | TALL1, BLYS, BAFF | + | + | − | | | + | − | | | | |
| **CD268** | TNFRSF13C, BAFFR, CD268, BAFF-R, MGC138235 | BAFF | + | + | − | − | | − | − | | | | |
| **CD269** | TNFRSF17, BCM, BCMA | TNFSF13B, TALL-1, BAFF | | + | | | | | | | | | |
| **CD270** | TNFRSF14, HVEM, HVEA, TR2, ATAR | CD258, CD272, CD160 | + | + | + | + | | + | + | | | | |
| **CD271** | NGFR, Gp80-LNGFR, TNFRSF16, p75(NTR), p75NTR | NGF, BDNF, NT-3, NT-4 | | | + | | | | | | | | |
| **CD272** | BTLA1, FLJ16065, MGC129743, BTLA | B7H4 | + | + | + | − | | + | − | | | | |
| **CD273** | B7DC, Btdc, PDL2, CD273, PD-L2, PDCD1L2, MGC142238, MGC142240, bA574F11.2, PDCD1LG2 | PD2 | + | | + | | | + | | | | | |
| **CD274** | B7-H, B7H1, PDL1, PD-L1, PDCD1L1, PDCD1LG1, MGC142294, MGC142296, CD274 | PD1 | + | + | + | + | | + | + | | | | |
| **CD275** | B7H2, GL50, B7-H2, B7RP1, CD275, ICOSL, LICOS, B7RP-1, ICOS-L, KIAA0653, ICOSLG | ICOS | + | + | + | | | + | | | | | |
| **CD276** | B7H3, B7-H3, 4Ig-B7-H3, CD276 | ICOS | | | + | | | + | | | | | |
| **CD277** | BTF5, BT3.1, CD277, MGC141880, BTN3A1 | | + | + | + | + | + | + | | | | | |
| **CD278** | AILIM, CD278, MGC39850, ICOS | B7-H3 | + | | | | | | | | | | |
| **CD279** | PD1, CD279, SLEB2, hPD-1, hPD-I, PDCD1 | PDL1 | + | + | | | | | | | | | |
| **CD280** | CD280, UPARAP, CLEC13E, ENDO180, FLJ35911, KIAA0709, MRC2, KIAA0709 | uPARAP | | | | + | | + | | | | + | |
| **CD281** | TIL, CD281, rsc786, KIAA0012, MGC104956, MGC126311, MGC126312, TIL. LPRS5, DKFZp547I0610, DKFZp564I0682, TLR1 | Bacterial lipoprotein | | | | | | + | + | | | | |
| **CD282** | TIL4, CD282, TLR2 | Peptidoglycan | | | | | | + | + | | | | |
| **CD283** | TLR3, TOLL-like receptor 3 | dsRNA | | | + | | | − | − | | | | |
| **CD284** | TOLL, CD284, hToll, ARMD10, TLR4 | LPS | | | + | | | + | + | | | + | |
| **CD285** | TLR5, Toll-like receptor 5, SLEB1, SLE1, MELIOS, TIL3 | Bacterial flagellin | | | + | | | + | | | | | + |
| **CD286** | CD286, TLR6, TOLL-like receptor 6 | LPS | | | + | | | + | | | | | + |
| **CD288** | CD288, MGC119599, MGC119600, TLR8, TOLL_like receptor 8 | CpG oligonucleotides, MyD88 | + | | + | | | + | | | | | |
| **CD289** | TLR9, TOLL-like receptor 9 | CpG oligonucleotides | | + | + | | | | | | | | |
| **CD290** | TLR10, TOLL-like receptor 10 | MyD88 | + | + | + | | | | + | | | | |
| **CD292** | BIMPR1A, 10q23del, ACVRLK3, ALK3, SKR5 | Members of TGF-β superfamily | | | | | + | | | | | | |
| **CDw293** | BMPR1B, ALK-6, ALK6, | BMPs (members of the TGF-β superfamily) | | | | | + | | | | | | |
| **CD294** | CRTH2, PGRD2, G protein-coupled receptor 44 (GPR44), DL1R, DP2 | Prostaglandin D2 | + | | | | | | + | | | | |
| **CD295** | LEPR, OBR | Leptin | + | + | + | + | + | + | + | + | | + | + |
| **CD296** | ART1, ADP-ribosyltransferase 1, RT6, ART2, MGC133217 | Arginine residues in proteins | + | | | | | | | | | | + |
| **CD297** | ART4, ADP-ribosyltransferase 4, Dombrock blood group glycoprotein, DO, DOK1 | Antigens of the Dombrock blood group system are located on the gene product, which is glycosylphosphatidylinosotol-anchored to the erythrocyte membrane. | | | | | | + | | | | + | |
| **CD298** | ATP1B3, Na K ATPase β3 subunit, ATPB-3, FLJ29027 | Part of the glycoprotein subunits of Na+/K+ -ATPase. | + | + | + | + | + | + | + | + | | | |
| **CD299** | DCSIGN-related, L-SIGN, DCSIGNR, HP10347, DC-SIGN2, DC-SIGNR, MGC47866, MGC12996, CLEC4M | Carbohydrate ligands on the surface of microbes and endogenous cells | | | | | | | | | | + | |
| **CD300a** | IRC1, IRC2, CLM-8, IRp60, IGSF12, CMRF35H, CMRF-35H, CMRF35-H, CMRF35H9, CMRF35-H9, IRC1/IRC2, CMRF-35-H9 | Unknown | + | + | + | | | + | | | | | |
| **CD300c** | CMRF-35A, LIR, CLM-6, CMRF35, IGSF16, CMRF-35, CMRF35A, CMRF35A1, CMRF35-A1 | Unknown | + | + | + | | | + | | | | | |
| **CD300e** | CMRF-35L1, CLM2, CLM-2, IREM2, PIgR2, IREM-2, PIgR-2, CD300LE, CMRF35-A5 | Unknown | | | + | | | + | | | | | |
| **CD301** | MGL1, CLEC10A, CLECSF14, HML | Terminal galactose and N-acetylglucosamine units linked to serine or threonine | | | + | | | + | | | | | |
| **CD302** | DCL1 | F-actin | | | + | | | + | + | | | | |
| **CD303** | BDCA2, CLEC4C | TLR-9 | | | + | | | | | | | | |
| **CD304** | Neuropilin 1 | VEGF | | | + | | | | | | | | |
| **CD305** | LAIR1 | PTPN6, PTPN11 | + | + | + | + | | + | | | | | |
| **CD306** | LAIR2 | LAIR1, Collagen | + | + | | | | + | | | | | |
| **CD307a** | FCRL1, IRTA5 | | − | + | − | − | | − | − | | | | |
| **CD307b** | FCRL2, IRTA4 | | − | + | − | − | | − | − | | | | |
| **CD307c** | FCRL3, IRTA3 | | + | + | − | − | | − | − | | | | |
| **CD307d** | FCRL4, IRTA1 | | − | + | − | − | | − | − | | | | |
| **CD307e** | FCRL5, IRTA2 | | − | + | − | − | − | − | − | | | | |
| **CD309** | VEGFR2, KDR, Flk1 | VEGF | | | | | + | | | | | + | |
| **CD312** | EMR2 | Chondroitin sulphates | | | + | | | + | + | | | | |
| **CD314** | NKG2D | MICA, MICB, ULBP2, ULBP1 | + | + | − | + | | + | + | | | | |
| **CD315** | PTGFRN, CD9P1 | CD9, CD81 | | + | | | | + | | | | | |
| **CD316** | EWI2, IGSF8 | CD82, CD81, CD9 | + | + | | + | | | | | | | |
| **CD317** | BST2 | | + | + | + | + | | + | | | | | |
| **CD318** | CDCP1 | N-Caherin, P-Cadherin, Syndecan-1, Syndecan-4 | | | | | + | | | | | | |
| **CD319** | CRACC, SLAMF7 | CD319 | + | + | + | + | | + | − | | | | |
| **CD320** | 8D6 | 8D6 Antigen, FDC | | | + | | | | | | | | |
| **CD321** | JAM1, F11 receptor | | + | + | | + | | + | + | + | + | + | + |
| **CD322** | JAM2 | | | | | | | | | | | + | |
| **CD324** | E-Cadherin | | | | | | + | | | | + | | + |
| **CD325** | N-Cadherin | | | | | | + | | | | | | |
| **CD326** | Ep-CAM | | | | | | | | | | | | + |
| **CD327** | Siglec6, CD33L | Silylated glycans | | + | | | | | | | | | |
| **CD328** | Siglec7 | Silylated glycans | + | + | + | + | | + | + | | | | |
| **CD329** | Siglec9 | Silylated glycans, sMUC16 | − | + | − | + | | + | + | | | | |
| **CD331** | FGFR1 | FGF | | | | | | | | | | | + |
| **CD332** | FGFR2 | FGF | | | | | | | | | | | + |
| **CD333** | FGFR3 | FGF | | | | | | | | | | | + |
| **CD334** | FGFR4 | Acidic FGF | | | | | | | | | | | + |
| **CD335** | NKp46, NCR1, Ly94 | HA, CD3z, FCERIG | | | | + | | | | | | | |
| **CD336** | NKp44, NCR2, Ly95 | DAP12 | | | | + | | | | | | | |
| **CD337** | NKp30, NCR3 | Viral proteins, CD3z | | | | + | | | | | | | |
| **CD338** | ABCG2 | | − | + | | − | + | + | − | | | | |
| **CD339** | Jagged-1, JAG1 | Notch 1, 2, 3 | | | | | | | | | | | + |
| **CD340** | ERB-B2, Neu, Her-2 | EGFR | | | | | | | | | | | + |
| **CD344** | FZD4, Frizzled homolog 4 | MAGI3, Norrin | | | | | + | | | | | + | + |
| **CD349** | FZD9, Frizzled homolog 9 | Wnt-2 | | | | | + | | | | | | |
| **CD350** | FZD10, Frizzled homolog 10 | Wnt-7 | | | | | + | | | | | | + |
| **CD351** | FCAMR, Fc receptor, IgA, IgM, high affinity | IgA, IgM | + | + | − | − | | + | − | | | | |
| **CD352** | SLAMF6, Ly108, NTB-A | CD352, SH2D1A, SAPPTN6, PTN11 | + | + | + | + | | + | + | | | | |
| **CD353** | SLAMF8, BLAME | | − | + | − | − | | + | − | | | | |
| **CD354** | TREM1 | TYROBP/DAP12 | + | + | + | + | | + | + | | | | |
| **CD355** | CRTAM, Cytotoxic and regulatory T-cell molecule | CADM1 | + | + | − | + | | − | − | | | | |
| **CD357** | TNFRSF18, Tumor necrosis factor receptor superfamily, member 18, GITR | TRAF1, TRAF2, TRAF3, SIVA1/SIVA, GITRL | + | + | + | + | | + | − | | | | |
| **CD358** | TNFRSF21, Tumor necrosis factor receptor superfamily, member 21, DR6 | TRADD, N-APP | + | + | − | − | | + | − | | | | |
| **CD360** | IL21R | IL-21, common γ subunit, JAK1 | + | + | − | + | | + | + | | | | |
| **CD361** | EVI2B (ectopic viral integration site 2B) | | + | + | − | + | | + | + | | | | |
| **CD362** | Syndecan-2 | CD267 (TACI), FGF2, GM-CSF, TGFβ | + | + | − | − | | + | + | | | | |
| **CD363** | S1PR1, Sphingosine-1-phosphate receptor 1, EDG-1, S1P1 | SIP | + | + | − | + | | − | − | | | + | |
| **CD364** | PI16 | MSMB | + | − | | − | | − | − | | | | |
| **CD365** | TIM-1, T-cell immunoglobulin mucin receptor 1, TIMD-1, HAVCR1, KIM-1 | Hepatitis A Virus, TIM-4 | + | | | | | | | | | | + |
| **CD366** | TIM-3, T-cell immunoglobulin mucin receptor 3, TIMD-3, HAVCR2, KIM-3 | Galectin-9 | + | | + | | | + | | | | | |
| **CD367** | CLEC4A, CLECSF6; DCIR, Dendritic cell immunoreceptor, LLIR | HIV-1, HCV, endogenous and pathogen glycans | | + | + | | | + | + | | | | |
| **CD368** | CLEC4D, C-type lectin domain family 4, member D, CLEC6, MCL, MPCL | Glycans | | | + | | | + | + | | | | |
| **CD369** | CLEC7A, Dectin-1, Dendritic cell-associated C-type lectin 1, BGR | β-glucans | | + | + | | | + | + | | | + | |
| **CD370** | CLEC9A, C-type lectin domain family 9 member A, DNGR1 | Complex of actin filaments and associated cytoskeletal proteins | | | + | | | + | | | | | |
| **CD371** | CLEC12A, DCAL-2, Dendritic cell-associated lectin 2, CLL-1, MICL | | | | + | + | | + | + | | | | |

\+ Positive* − Negative

## T Cell

Key Markers
CD3
CD4
CD8

## B Cell

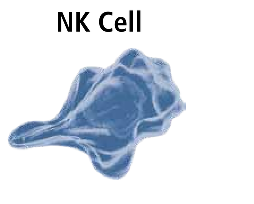


Key Markers
CD19
CD20

## Dendritic Cell

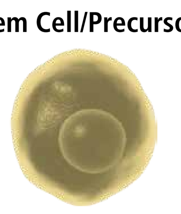
Key Markers
CD11c
CD123

## NK Cell



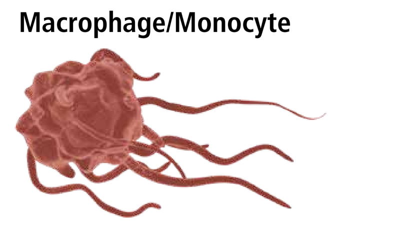
Key Markers
CD56

## Stem Cell/Precursor



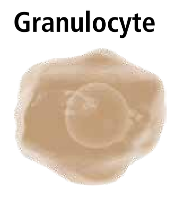
Key Markers
CD34*
*hematopoetic stem cell only

## Macrophage/Monocyte



Key Markers
CD14
CD33

## Granulocyte



Key Markers
CD66b

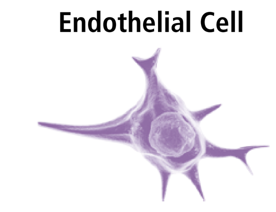
## Platelet

Key Markers
CD41
CD61
CD62

## Erythrocyte

Key Markers
CD235a

## Endothelial Cell



Key Markers
CD146

## Epithelial Cell

Key Markers
CD326

*Positive refers to any expression of this CD marker either in all cells, a subset, or upon activation.

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[1]The new CDs were established at the HLDA10 meeting held in Australia 2014. For additional information regarding CD molecules, please visit **www.hcdm.org**.