

Table S1. Antibodies included in HT-FC panel.

| Antigen | Isotype | NCBI Gene Name | Entrez Gene ID | Supplier | Clone | Note |
|---------|----------------|----------------|----------------|-----------------|-------------|------|
| BLTR-1 | Mouse IgG1 | LTB4R | 1241 | BD Biosciences | 203/14F11 | |
| CA9 | Mouse IgG2a | CA9 | 768 | R&D Systems | 303123 | |
| CD10 | Mouse IgG1, κ | MME | 4311 | BD Biosciences | HI10a | |
| CD100 | Mouse IgM | SEMA4D | 10507 | e-Bioscience | 133-1C6 | |
| CD101 | Mouse IgG1 | IGSF2 | 9398 | e-Bioscience | BB27 | |
| CD102 | Mouse IgG2a, κ | ICAM2 | 3384 | BD Biosciences | CBR-1C2/2.1 | |
| CD103 | Mouse IgG1, κ | ITGAE | 3682 | BD Biosciences | Ber-ACT8 | |
| CD104 | Rat IgG2b, κ | ITGB4 | 3691 | BD Biosciences | 439-9B | |
| CD105 | Mouse IgG1 | ENG | 2022 | e-Bioscience | SN6 | |
| CD106 | Mouse IgG1, κ | VCAM1 | 7412 | BD Biosciences | 51-10C9 | |
| CD107a | Mouse IgG1, κ | LAMP1 | 3916 | BD Biosciences | H4A3 | |
| CD107b | Mouse IgG1, κ | LAMP2 | 3920 | BD Biosciences | H4B4 | |
| CD108 | Mouse IgG2a, κ | SEMA7A | 8482 | BD Biosciences | KS-2 | |
| CD109 | Mouse IgG1, κ | CD109 | 135228 | BD Biosciences | TEA 2/16 | |
| CD110 | Mouse IgG2b, κ | MPL | 4352 | BD Biosciences | 1.6.1 | |
| CD111 | Mouse IgG1, κ | PVRL1 | 5818 | BioLegend | R1.302 | |
| CD112 | Mouse IgG1, κ | PVRL2 | 5819 | BD Biosciences | R2.525 | |
| CD114 | Mouse IgG1, κ | CSF3R | 1441 | BD Biosciences | LMM741 | |
| CD115 | Mouse IgG1 | CSF1R | 1436 | R&D Systems | 61708 | |
| CD116 | Mouse IgG1, κ | CSF2RA | 1438 | BD Biosciences | hGMCSFR-M1 | |
| CD117 | Mouse IgG1, κ | KIT | 3815 | BD Biosciences | YB5.B8 | |
| CD118 | Mouse IgG1 | LIFR | 3977 | R&D Systems | 32953 | |
| CD119 | Mouse IgG1, κ | IFNGR1 | 3459 | BD Biosciences | GIR-208 | |
| CD11a | Mouse IgG1, κ | ITGAL | 3683 | BD Biosciences | HI111 | |
| CD11b | Mouse IgG1, κ | ITGAM | 3684 | BD Biosciences | ICRF44 | |
| CD11c | Mouse IgG1, κ | ITGAX | 3687 | BD Biosciences | B-ly6 | |
| CD120a | Mouse IgG1 | TNFRSF1A | 7132 | R&D Systems | 16803 | |
| CD120b | Rat IgG2b, κ | TNFRSF1B | 7133 | BD Biosciences | hTNFR-M1 | |
| CD121b | Mouse IgG1 | IL1R2 | 7850 | R&D Systems | 34141 | |
| CD122 | Mouse IgG1, κ | IL2RB | 3560 | BD Biosciences | Mik-β3 | |
| CD123 | Mouse IgG2a, κ | IL3RA | 3563 | BD Biosciences | 7G3 | |
| CD124 | Mouse IgG1, κ | IL4R | 3566 | BD Biosciences | hIL4R-M57 | |
| CD125 | Mouse IgG1 | IL5RA | 3568 | R&D Systems | 26815 | |
| CD126 | Mouse IgG1, κ | IL6R | 3570 | BD Biosciences | M5 | |
| CD127 | Mouse IgG1, κ | IL7R | 3575 | BD Biosciences | hIL-7R-M21 | |
| CD129 | Mouse IgG2b, κ | IL9R | 3581 | BioLegend | AH9R7 | |
| CD13 | Mouse IgG1, κ | ANPEP | 290 | BD Biosciences | WM15 | |
| CD130 | Mouse IgG1, κ | IL6ST | 3572 | BD Biosciences | AM64 | |
| CD131 | Mouse IgG1, κ | CSF2RB | 1439 | e-Bioscience | 1C1 | |
| CD132 | Mouse IgG1, κ | IL2RG | 3561 | BD Biosciences | AG184 | |
| CD133 | Mouse IgG1, κ | PROM1 | 8842 | Miltenyi | AC133 | |
| CD134 | Mouse IgG1, κ | TNFRSF4 | 7293 | BD Biosciences | ACT35 | |
| CD135 | Mouse IgG1, κ | FLT3 | 2322 | BD Biosciences | 4G8 | |
| CD136 | not given | MST1R | 4486 | Beckman Coulter | ID1 | |
| CD137 | Mouse IgG1, κ | TNFRSF9 | 3604 | BD Biosciences | 4B4-1 | |
| CD137L | Mouse IgG1, κ | TNFSF9 | 8744 | BioLegend | 5F4 | |
| CD138 | Mouse IgG1, κ | SDC1 | 6382 | BD Biosciences | M15 | |
| CD14 | Mouse IgG2a, κ | CD14 | 929 | BD Biosciences | M5E2 | |
| CD140a | Mouse IgG2a, κ | PDGFRA | 5156 | BD Biosciences | αR1 | |
| CD140b | Mouse IgG2a, κ | PDGFRB | 5159 | BD Biosciences | 28D4 | |
| CD141 | Mouse IgG1, κ | THBD | 7056 | BD Biosciences | 1A4 | |
| CD142 | Mouse IgG1, κ | F3 | 2152 | BD Biosciences | HTF-1 | |
| CD143 | Mouse IgG1 | ACE | 1636 | R&D Systems | 171417 | |
| CD144 | Mouse IgG1, κ | CDH5 | 1003 | BD Biosciences | 55-7H1 | |
| CD146 | Mouse IgG1, κ | MCAM | 4162 | BD Biosciences | P1H12 | |
| CD147 | Mouse IgG1, κ | BSG | 682 | BD Biosciences | HIM6 | |
| CD148 | Mouse IgG1 | PTPRJ | 5795 | R&D Systems | 143-41 | |
| CD15 | Mouse IgM, κ | FUT4 | 2526 | BD Biosciences | HI98 | |
| CD150 | Mouse IgG1, κ | SLAMF1 | 6504 | BD Biosciences | A12 | |
| CD151 | Mouse IgG1, κ | CD151 | 977 | BD Biosciences | 14A2.H1 | |
| CD152 | Mouse IgG2a, κ | CTLA4 | 1493 | BD Biosciences | BNI3 | |
| CD153 | Mouse IgG2B | TNFSF8 | 944 | R&D Systems | 116614 | |
| CD154 | Mouse IgG1, κ | CD40LG | 959 | BD Biosciences | TRAP1 | |
| CD155 | Mouse IgG1 | PVR | 5817 | e-Bioscience | 2H7CD155 | |

Supplementary Table 1. Antibodies included in HT-FC panel, continued.

| Antigen | Isotype | NCBI Gene Name | Entrez Gene ID | Supplier | Clone | Note |
|---------|----------------|----------------|----------------|--------------------|--------------|------------------|
| CD156b | Mouse IgG1 | ADAM17 | 6868 | R&D Systems | 111633 | |
| CD157 | Mouse IgG1, k | BST1 | 683 | MBL | RF3 | |
| CD158A | Mouse IgM, k | KIR2DL1 | 3802 | BD Biosciences | HP-3E4 | |
| CD158B1 | Mouse IgG2b, k | KIR2DL2 | 3803 | BD Biosciences | CH-L | |
| CD158B2 | Mouse IgG2a, k | KIR2DL3 | 3804 | BD Biosciences | DX27 | |
| CD158D | Mouse IgG2a | KIR2DL4 | 3805 | R&D Systems | 181703 | |
| CD158E2 | Mouse IgG1, k | KIR3DS1 | 3813 | BD Biosciences | DX9 | |
| CD158F | Mouse IgG1 | KIR2DL5A | 57292 | BioLegend | UP-R1 | |
| CD158I | Mouse IgG1 | KIR2DS4 | 3809 | Mitenyi | JJC11.6 | |
| CD159a | Mouse IgG2a | KLRC1 | 3821 | R&D Systems | 131411 | |
| CD159c | Mouse IgG1 | KLRC2 | 3822 | R&D Systems | 134591 | |
| CD16 | Mouse IgG1, k | FCGR3A | 2214 | BD Biosciences | 3G8 | |
| CD160 | Mouse IgM, k | CD160 | 11126 | BioLegend | BY55 | |
| CD161 | Mouse IgG1, k | KLRB1 | 3820 | BD Biosciences | DX12 | |
| CD162 | Mouse IgG1, k | SELPLG | 6404 | BD Biosciences | KPL-1 | |
| CD163 | Mouse IgG1, k | CD163 | 9332 | BD Biosciences | GHW61 | |
| CD164 | Mouse IgG2a, k | CD164 | 8763 | BD Biosciences | N6B6 | |
| CD165 | Mouse IgG1 | CD165 | 23449 | e-Bioscience | SN2 N56-D11 | |
| CD166 | Mouse IgG1, k | ALCAM | 214 | BD Biosciences | 3A6 | |
| CD167a | Mouse IgM, k | DDR1 | 780 | BioLegend | 51D6 | |
| CD169 | Mouse IgG1 | SIGLEC1 | 6614 | BioLegend | 7-239 | |
| CD16b | Mouse IgG2a, k | FCGR3B | 2215 | BD Biosciences | CLB-gran11.5 | |
| CD17 | Mouse IgM | N/A | N/A | Lifespan Bioscienc | Not given | Lactosylceramide |
| CD170 | Mouse IgG1 | SIGLEC5 | 8778 | R&D Systems | 194128 | |
| CD171 | Mouse IgG2a | L1CAM | 3897 | e-Bioscience | 5G3 | |
| CD172a | Mouse IgG1, k | SIRPA | 140885 | BioLegend | SE5A5 | |
| CD172b | Mouse IgG1, k | SIRPB1 | 10326 | BD Biosciences | B4B6 | |
| CD172g | Mouse IgG1, k | SIRPG | 55423 | BioLegend | LSB2.20 | |
| CD175s | Mouse IgG1 | N/A | N/A | Abcam | STn 219 | Sialyl-Tn |
| CD177 | Mouse IgG1 | CD177 | 57126 | Abcam | MEM-166 | |
| CD178 | Mouse IgG1, k | FASLG | 356 | BioLegend | NOK-1 | |
| CD179a | Mouse IgG1, k | VPREB1 | 7441 | BioLegend | HSL96 | |
| CD18 | Mouse IgG1, k | ITGB2 | 3689 | BD Biosciences | 6.7 | |
| CD180 | Mouse IgG1, k | CD180 | 4064 | BD Biosciences | G28-8 | |
| CD181 | Mouse IgG2b, k | IL8RA | 3577 | BD Biosciences | 5A12 | |
| CD182 | Mouse IgG1, k | IL8RB | 3579 | BD Biosciences | 6C6 | |
| CD183 | Mouse IgG1, k | CXCR3 | 2833 | BD Biosciences | 1C6/CXCR3 | |
| CD184 | Mouse IgG2a, k | CXCR4 | 7852 | BD Biosciences | 12G5 | |
| CD185 | Mouse IgG2b, k | BLR1 | 643 | BD Biosciences | RF8B2 | |
| CD186 | Mouse IgG2b, k | CXCR6 | 10663 | R&D Systems | 56811 | |
| CD19 | Mouse IgG1, k | CD19 | 930 | BD Biosciences | HIB19 | |
| CD191 | Mouse IgG2b | CCR1 | 1230 | R&D Systems | 53504 | |
| CD192 | Mouse IgG2b, k | CCR2 | 729230 | BD Biosciences | 48607 | |
| CD193 | Mouse IgG2b, k | CCR3 | 1232 | BD Biosciences | 5E8 | |
| CD194 | Mouse IgG2b, k | CCR4 | 1233 | BioLegend | TG6/CCR4 | |
| CD195 | Mouse IgG2a, k | CCR5 | 1234 | BD Biosciences | 3A9 | |
| CD196 | Mouse IgG1, k | CCR6 | 1235 | BD Biosciences | 11A9 | |
| CD197 | Rat IgG2a, k | CCR7 | 1236 | BD Biosciences | 3D12 | |
| CD1a | Mouse IgG1, k | CD1A | 909 | BD Biosciences | HI149 | |
| CD1b | Mouse IgG1, k | CD1B | 910 | BD Biosciences | M-T101 | |
| CD1c | Mouse IgG1, k | CD1C | 911 | BioLegend | L161 | |
| CD1d | Mouse IgG1, k | CD1D | 912 | BD Biosciences | CD1d42 | |
| CD2 | Mouse IgG1, k | CD2 | 914 | BD Biosciences | RPA-2.10 | |
| CD20 | Mouse IgG2b, k | MS4A1 | 931 | BD Biosciences | 2H7 | |
| CD200 | Mouse IgG1, k | CD200 | 4345 | BD Biosciences | MRC OX-104 | |
| CD201 | Rat IgG1, k | PROCR | 10544 | BD Biosciences | RCR-252 | |
| CD202b | Mouse IgG1, k | TEK | 7010 | BioLegend | 33.1 (Ab33) | |
| CD203c | Mouse IgG1, k | ENPP3 | 5169 | BioLegend | NP4D6 | |
| CD204 | Mouse IgG2B | MSR1 | 4481 | R&D Systems | 351615 | |
| CD205 | Mouse IgG2b, k | LY75 | 4065 | BD Biosciences | MG38 | |
| CD206 | Mouse IgG1, k | MRC1 | 4360 | BD Biosciences | 19.2 | |
| CD207 | Mouse IgG1 | CD207 | 50489 | R&D Systems | 343828 | |
| CD208 | Mouse IgG1, k | LAMP3 | 27074 | BD Biosciences | I10-1112 | |
| CD209 | Mouse IgG2b, k | CD209 | 30835 | BD Biosciences | DCN46 | |
| CD21 | Mouse IgG1, k | CR2 | 1380 | BD Biosciences | B-ly4 | |

Supplementary Table 1. Antibodies included in HT-FC panel, continued.

| Antigen | Isotype | NCBI Gene Name | Entrez Gene ID | Supplier | Clone | Note |
|------------|----------------|----------------|----------------|--------------------|----------------|------------|
| CD212 | Mouse IgG1, κ | IL12RB1 | 3594 | BD Biosciences | 2.4e6 | |
| CD213a2 | Mouse IgG1 | IL13RA2 | 3598 | Abcam | B-D13 | |
| CD215 | Mouse IgG2B | IL15RA | 3601 | R&D Systems | 151303 | |
| CD217 | Mouse IgG1 | IL17RA | 23765 | bioLegend | BG/hIL17AR | |
| CD218b | Mouse IgG2b | IL18RAP | 8807 | R&D Systems | 132029 | |
| CD22 | Mouse IgG2b, κ | CD22 | 933 | BD Biosciences | S-HCL-1 | |
| CD220 | Goat IgG | INSR | 3643 | R&D Systems | | Polyclonal |
| CD221 | Mouse IgG1, κ | IGF1R | 3480 | BD Biosciences | 1H7 | |
| CD222 | Mouse IgG1, κ | IGF2R | 3482 | BioLegend | MEM-238 | |
| CD223 | Goat IgG | LAG3 | 3902 | R&D Systems | not given | |
| CD226 | Mouse IgG1, κ | CD226 | 10666 | BD Biosciences | DX11 | |
| CD227 | Mouse IgG1, κ | MUC1 | 4582 | BD Biosciences | HMPV | |
| CD229 | Mouse IgG2a | LY9 | 4063 | R&D Systems | 249936 | |
| CD23 | Mouse IgG1, κ | FCER2 | 2208 | BD Biosciences | M-L233 | |
| CD230 | Mouse IgG1, κ | PRNP | 5621 | e-Bioscience | 4D5 | |
| CD231 | Mouse IgG1, κ | TSPAN7 | 7102 | BioLegend | SN1a (M3-3D9) | |
| CD234 | Mouse IgG2A | DARC | 2532 | R&D Systems | 358307 | |
| CD235a | Mouse IgG2b, κ | GYPA | 2993 | BD Biosciences | GA-R2 (HIR2) | |
| CD24 | Mouse IgG2a, κ | CD24 | 100133941 | BD Biosciences | ML5 | |
| CD243 (BC) | Mouse IgG2a | ABCB1 | 5243 | Beckman Coulter | UIC2 | |
| CD243 (BD) | Mouse IgG2b, κ | ABCB1 | 5243 | BD Biosciences | 17F9 | |
| CD244 | Mouse IgG2a, κ | CD244 | 51744 | BD Biosciences | 2-69 | |
| CD245 | Mouse IgG1, κ | NPAT | 4863 | BioLegend | DY12 | |
| CD249 | Rat IgG1, κ | ENPEP | 2028 | Lifespan Bioscienc | not provided | |
| CD25 | Mouse IgG1, κ | IL2RA | 3559 | BD Biosciences | M-A251 | |
| CD252 | Mouse IgG1, κ | TNFSF4 | 7292 | BD Biosciences | Ik-1 | |
| CD253 | Mouse IgG1 | TNFSF10 | 8743 | BD Biosciences | RIK-2 | |
| CD254 | Mouse IgG2b, κ | TNFSF11 | 8600 | BioLegend | MIH24 | |
| CD255 | Mouse IgG3 | TNFSF12 | 8742 | BD Biosciences | CARL-1 | |
| CD256 | Mouse IgG2a, κ | TNFSF13 | 8741 | BioLegend | A3D8 | |
| CD257 | Mouse IgG1, κ | TNFSF13B | 10673 | BioLegend | T7-241 | |
| CD258 | Mouse IgG1 | TNFSF14 | 8740 | R&D Systems | 115520 | |
| CD26 | Mouse IgG1, κ | DPP4 | 1803 | BD Biosciences | M-A261 | |
| CD261 | Mouse IgG1 | TNFRSF10A | 8797 | BioLegend | DJR1 | |
| CD262 | Mouse IgG2b | TNFRSF10B | 8795 | R&D Systems | 71908 | |
| CD263 | Mouse IgG1 | TNFRSF10C | 8794 | R&D Systems | 90906 | |
| CD264 | Mouse IgG1 | TNFRSF10D | 8793 | R&D Systems | 104918 | |
| CD267 | Rat IgG2a, κ | TNFRSF13B | 23495 | BD Biosciences | 1A1-K21-M22 | |
| CD268 | Mouse IgG1, κ | TNFRSF13C | 115650 | BD Biosciences | 11C1 | |
| CD269 | Goat IgG | TNFRSF17 | 608 | R&D Systems | Polyclonal | |
| CD27 | Mouse IgG1, κ | CD27 | 939 | BD Biosciences | M-T271 | |
| CD270 | Mouse IgG1, κ | TNFRSF14 | 8764 | BioLegend | 122 | |
| CD271 | Mouse IgG1, κ | NGFR | 4804 | BD Biosciences | C40-1457 | |
| CD272 | Mouse IgG1, κ | BTLA | 151888 | BD Biosciences | J168-540.90.22 | |
| CD273 | Mouse IgG1, κ | PDCD1LG2 | 80380 | BD Biosciences | MIH18 | |
| CD274 | Mouse IgG1, κ | CD274 | 29126 | BD Biosciences | MIH1 | |
| CD275 | Mouse IgG2b, κ | ICOSLG | 23308 | BD Biosciences | 2D3/B7-H2 | |
| CD276 | Mouse IgG1, κ | CD276 | 80381 | BioLegend | DCN.70 | |
| CD277 | Mouse IgG1 | BTN3A1 | 11119 | e-Bioscience | BT3.1 | |
| CD278 | Mouse IgG1 | ICOS | 29851 | BD Biosciences | DX29 | |
| CD279 | Mouse IgG1, κ | PDCD1 | 5133 | BD Biosciences | MIH4 | |
| CD28 | Mouse IgG1, κ | CD28 | 940 | BD Biosciences | CD28.2 | |
| CD281 | Mouse IgG1, κ | TLR1 | 7096 | BioLegend | TLR1.136 | |
| CD282 | Mouse IgG1, κ | TLR2 | 7097 | BD Biosciences | 11G7 | |
| CD283 | Mouse IgG1, κ | TLR3 | 7098 | e-Bioscience | TLR3.7 | |
| CD284 | Mouse IgG2a | TLR4 | 7099 | R&D Systems | 610015 | |
| CD286 | Mouse IgG1, κ | TLR6 | 10333 | BioLegend | TLR6.127 | |
| CD288 | Mouse IgG1 | TLR8 | 51311 | Abcam | 44C143 | |
| CD289 | Rat IgG2a, κ | TLR9 | 54106 | BD Biosciences | eB72-1665 | |
| CD29 | Mouse IgG1, κ | ITGB1 | 3688 | BD Biosciences | MAR4 | |
| CD290 | Mouse IgG1, κ | TLR10 | 81793 | BioLegend | 3C10C5 | |
| CD292 | Goat IgG | BMPR1A | 657 | R&D Systems | Polyclonal | |
| CD294 | Rat IgG2a, κ | GPR44 | 11251 | BD Biosciences | BM16 | |
| CD295 | Mouse IgG2b | LEPR | 3953 | R&D Systems | 52263 | |
| CD298 | Mouse IgG2a | ATP1B3 | 483 | BioLegend | LNH-94 | |

Supplementary Table 1. Antibodies included in HT-FC panel, continued.

| Antigen | Isotype | NCBI Gene Name | Entrez Gene ID | Supplier | Clone | Note |
|------------|----------------|----------------|----------------|----------------|-------------|------------------------------|
| CD299 | Mouse IgG2b | CLEC4M | 10332 | R&D Systems | 120604 | |
| CD3 | Mouse IgG2a, κ | CD3E | 916 | BD Biosciences | HIT3a | |
| CD30 | Mouse IgG1, κ | TNFRSF8 | 943 | BD Biosciences | BerH8 | |
| CD300a | Mouse IgG1 | CD300A | 11314 | Abcam | MEM-260 | |
| CD300c | Mouse IgG1, κ | CD300C | 10871 | BioLegend | TX45 | |
| CD300e | Mouse IgG1, κ | CD300E | 342510 | BioLegend | UP-H2 | |
| CD301 | Mouse IgG1 | CLEC10A | 10462 | Imgenex | 125A10.03 | |
| CD303 | Mouse IgG1 | CLEC4C | 170482 | Miltenyi | AC144 | |
| CD304 | Mouse IgG1 | NRP1 | 8829 | Miltenyi | AD5-17F6 | |
| CD305 | Mouse IgG1, κ | LAIR1 | 3903 | BD Biosciences | DX26 | |
| CD307e | Mouse IgG2a, κ | FCRL5 | 83416 | BioLegend | 509f6 | |
| CD309 | Mouse IgG1 | KDR | 3791 | R&D Systems | 89106 | |
| CD31 | Mouse IgG1, κ | PECAM1 | 5175 | BD Biosciences | WM59 | |
| CD312 | Mouse IgG1 | EMR2 | 30817 | AbD Serotech | 2A1 | |
| CD314 | Mouse IgG1, κ | KLRK1 | 22914 | BD Biosciences | 1D11 | |
| CD317 | Mouse IgG1, κ | BST2 | 684 | BioLegend | RS38E | |
| CD318 | Mouse IgG2a | CDCP1 | 64866 | R&D Systems | 309121 | |
| CD319 | Mouse IgG2a | SLAMF7 | 57823 | R&D Systems | 235614 | |
| CD32 | Mouse IgG1, κ | FCGR2A | 2212 | BD Biosciences | 3D3 | |
| CD321 | Mouse IgG1, κ | F11R | 50848 | BD Biosciences | M.AB.F11 | |
| CD322 | Rat IgG2a | JAM2 | 58494 | AbD Serotech | CRAM-18 F26 | |
| CD324 | Mouse IgG2a, κ | CDH1 | 999 | BD Biosciences | 67A4 | |
| CD325 | Mouse IgG1, κ | CDH2 | 1000 | e-Bioscience | 8C11 | |
| CD326 | Mouse IgG1, κ | TACSTD1 | 4072 | BD Biosciences | EBA-1 | |
| CD328 | Mouse IgG1, κ | SIGLEC7 | 27036 | BD Biosciences | F023-420 | |
| CD33 | Mouse IgG1, κ | CD33 | 945 | BD Biosciences | P67.6 | |
| CD332 | Mouse IgG1 | FGFR2 | 2263 | R&D Systems | 98725 | |
| CD333 | Mouse IgG1 | FGFR3 | 2261 | R&D Systems | 136334 | |
| CD334 | Mouse IgG1, κ | FGFR4 | 2264 | BioLegend | 4FR6D3 | |
| CD335 | Mouse IgG1, κ | NCR1 | 9437 | BD Biosciences | 9E2/NKp46 | |
| CD336 | Mouse IgG1, κ | NCR2 | 9436 | BD Biosciences | P44-8.1 | |
| CD337 | Mouse IgG1, κ | NCR3 | 259197 | BD Biosciences | P30-15 | |
| CD338 | Mouse IgG2b, κ | ABCg2 | 9429 | BioLegend | 5D3 | |
| CD339 | Mouse IgG2b | JAG1 | 182 | R&D Systems | 188331 | |
| CD34 | Mouse IgG1, κ | CD34 | 947 | BD Biosciences | 581 | |
| CD340 | Mouse IgG1, κ | ERBB2 | 2064 | BD Biosciences | Neu 24.7 | |
| CD344 | Mouse IgG1, κ | FZD4 | 8322 | BioLegend | CH3A4A7 | |
| CD349 | Mouse IgM, κ | FZD9 | 8326 | BioLegend | W3C4E11 | |
| CD35 | Mouse IgG1, κ | CR1 | 1378 | BD Biosciences | E11 | |
| CD351 | Mouse IgG1, κ | FCAMR | 83953 | BioLegend | TX61 | |
| CD352 | Mouse IgG1, κ | SLAMF6 | 114836 | BioLegend | NT-7 | |
| CD354 | Mouse IgG1, κ | TREM1 | 54210 | BioLegend | TREM-26 | |
| CD355 | Mouse IgG2a, κ | CRTAM | 56253 | BioLegend | Cr24.1 | |
| CD357 | Mouse IgG1, κ | TNFRSF18 | 8784 | BioLegend | 621 | |
| CD358/DR6 | Mouse IgG1 | TNFRSF21 | 27242 | Abcam | DR-6-04-EC | |
| CD36 | Mouse IgM, κ | CD36 | 948 | BD Biosciences | CB38 (NL07) | |
| CD360 (BD) | Mouse IgG1, κ | IL21R | 50615 | BD Biosciences | 17A12 | |
| CD360 (BL) | Mouse IgG1, κ | IL21R | 50615 | BioLegend | 2G1-K12 | |
| CD362 | Rat IgG2b | SDC2 | 6383 | R&D Systems | 305515 | |
| CD363 | Mouse IgG2b | S1PR1 | 1901 | R&D Systems | 218713 | |
| CD37 | Mouse IgG1, κ | CD37 | 951 | BD Biosciences | M-B371 | |
| CD38 | Mouse IgG1, κ | CD38 | 952 | BD Biosciences | HIT2 | |
| CD4 | Mouse IgG1, κ | CD4 | 920 | BD Biosciences | RPA-T4 | |
| CD40 | Mouse IgG1, κ | CD40 | 958 | BD Biosciences | 5C3 | |
| CD41a | Mouse IgG1, κ | ITGA2B/ITGB3 | | BD Biosciences | HIP8 | Recognizes CD41/CD61 complex |
| CD41b | Mouse IgG3, κ | ITGA2B | 3674 | BD Biosciences | HIP2 | |
| CD42a | Mouse IgG1, κ | GP9 | 2815 | BD Biosciences | ALMA.16 | |
| CD42b | Mouse IgG1, κ | GP1BA | 2811 | BD Biosciences | HIP1 | |
| CD43 | Mouse IgG1, κ | SPN | 6693 | BD Biosciences | 1G10 | |
| CD44 | Mouse IgG2b, κ | CD44 | 960 | BD Biosciences | G44-26 | |
| CD45RA | Mouse IgG2b, κ | PTPRC | 5788 | BD Biosciences | H1100 | |
| CD45RB | Mouse IgG1, κ | PTPRC | 5788 | BD Biosciences | MT4 | |
| CD45RO | Mouse IgG2a, κ | PTPRC | 5788 | BD Biosciences | UCHL1 | |
| CD46 | Mouse IgG2a, κ | CD46 | 4179 | BD Biosciences | E4.3 | |
| CD47 | Mouse IgG1, κ | CD47 | 961 | BD Biosciences | B6H12 | |

Supplementary Table 1. Antibodies included in HT-FC panel, continued.

| Antigen | Isotype | NCBI Gene Name | Entrez Gene ID | Supplier | Clone | Note |
|-----------|----------------|----------------|----------------|--------------------|--------------------|--|
| CD48 | Mouse IgM, κ | CD48 | 962 | BD Biosciences | TÜ145 | |
| CD49a | Mouse IgG1, κ | ITGA1 | 3672 | BD Biosciences | SR84 | |
| CD49b | Mouse IgG2a, κ | ITGA2 | 3673 | BD Biosciences | 12F1 | |
| CD49c | Mouse IgG1, κ | ITGA3 | 3675 | BD Biosciences | C3 II.1 | |
| CD49d | Mouse IgG1, κ | ITGA4 | 3676 | BD Biosciences | 9F10 | |
| CD49e | Mouse IgG1, κ | ITGA5 | 3678 | BD Biosciences | IIA1 | |
| CD49f | Rat IgG2a, κ | ITGA6 | 3655 | BD Biosciences | GoH3 | |
| CD5 | Mouse IgG1, κ | CD5 | 921 | BD Biosciences | UCHT2 | |
| CD50 | Mouse IgG2b, κ | ICAM3 | 3385 | BD Biosciences | TÜ41 | |
| CD51/CD61 | Mouse IgG1, κ | ITGAV | 3685 | BD Biosciences | 23C6 | |
| CD52 | Mouse IgG2b, κ | CD52 | 1043 | BioLegend | HI186 | |
| CD53 | Mouse IgG1, κ | CD53 | 963 | BD Biosciences | HI29 | |
| CD54 | Mouse IgG1, κ | ICAM1 | 3383 | BD Biosciences | HA58 | |
| CD55 | Mouse IgG2a, κ | CD55 | 1604 | BD Biosciences | IA10 | |
| CD56 | Mouse IgG1, κ | NCAM1 | 4684 | BD Biosciences | B159 | |
| CD57 | Mouse IgM, κ | B3GAT1 | 27087 | BD Biosciences | HNK-1 | |
| CD58 | Mouse IgG2a, κ | CD58 | 965 | BD Biosciences | 1C3 | |
| CD59 | Mouse IgG2a, κ | CD59 | 966 | BD Biosciences | p282 (H19) | |
| CD6 | Mouse IgG1, κ | CD6 | 923 | BD Biosciences | M-T605 | |
| CD60b | Mouse IgM | N/A | N/A | Lifespan Bioscienc | not provided | 9-0-acetylated disialosyl group linked to glycoprotein |
| CD61 | Mouse IgG1, κ | ITGB3 | 3690 | BD Biosciences | VI-PL2 | |
| CD62E | Mouse IgG1, κ | SELE | 6401 | BD Biosciences | 68-5H11 | |
| CD62L | Mouse IgG2a, κ | SELL | 6402 | BD Biosciences | Sk11 | |
| CD62P | Mouse IgG1, κ | SELP | 6403 | BD Biosciences | AK-1 | |
| CD63 | Mouse IgG1, κ | CD63 | 967 | BD Biosciences | H5C6 | |
| CD64 | Mouse IgG1, κ | FCGR1A | 2209 | BD Biosciences | 10.1 | |
| CD65 | Mouse IgM | N/A | N/A | Beckman Coulter | 88H7 | Type II chain fucoganglioside |
| CD65s | Mouse IgM | N/A | N/A | Abcam | VIM-2 | Sialylated form of CD65 |
| CD66 | Mouse IgG2a, κ | CEACAM1 | 109770 | BD Biosciences | B1.1/CD66 | |
| CD66b | Mouse IgM, κ | CEACAM8 | 1088 | BD Biosciences | G10F5 | |
| CD66c | Mouse IgG1, κ | CEACAM6 | 4680 | BD Biosciences | B6.2/CD66c | |
| CD66d | Mouse IgG1 | CEACAM3 | 1084 | Abcam | CLB-gran/10, IH4Fc | |
| CD66e | Mouse IgG1 | CEACAM5 | 1048 | R&D Systems | 487618 | |
| CD69 | Mouse IgG1, κ | CD69 | 969 | BD Biosciences | FN50 | |
| CD7 | Mouse IgG1, κ | CD7 | 924 | BD Biosciences | M-T701 | |
| CD70 | Mouse IgG3, κ | CD70 | 970 | BD Biosciences | Ki-24 | |
| CD71 | Mouse IgG2a, κ | TFRC | 7037 | BD Biosciences | M-A712 | |
| CD72 | Mouse IgG2b, κ | CD72 | 971 | BD Biosciences | J4-118 | |
| CD73 | Mouse IgG1, κ | NT5E | 4907 | BD Biosciences | AD2 | |
| CD74 | Mouse IgG2a, κ | CD74 | 972 | BD Biosciences | M-B741 | |
| CD75 | Mouse IgM, κ | N/A | N/A | BD Biosciences | LN1 | Carbohydrate antigen |
| CD77 | Mouse IgM, κ | N/A | N/A | BD Biosciences | 5B5 | Globotriaosylceramide |
| CD79a | Mouse IgG1, κ | CD79A | 973 | R&D | 706931 | |
| CD79b | Mouse IgG1, κ | CD79B | 974 | BD Biosciences | CB3-1 | |
| CD8 | Mouse IgG1, κ | CD8A | 925 | BD Biosciences | HIT8a | |
| CD80 | Mouse IgG1, κ | CD80 | 941 | BD Biosciences | L307.4 | |
| CD81 | Mouse IgG1, κ | CD81 | 975 | BD Biosciences | JS-81 | |
| CD82 | Mouse IgG2a, κ | CD82 | 3732 | BioLegend | ASL-24 | |
| CD83 | Mouse IgG1, κ | CD83 | 9308 | BD Biosciences | HB15e | |
| CD84 | Mouse IgG1 | CD84 | 8832 | Biolegend | CD84.1.21 | |
| CD85A | Mouse IgG1 | LILRB3 | 11025 | Biolegend | MKT5.1 | |
| CD85D | Rat IgG2a | LILRB2 | 10288 | Biolegend | 42D1 | |
| CD85G | Mouse IgG1 | LILRA4 | 23547 | BioLegend | 17G10.2 | |
| CD85H | Rat IgG2a, κ | LILRA2 | 11027 | Biolegend | 24 | |
| CD85J | Mouse IgG2b, κ | LILRB1 | 10859 | BD Biosciences | GHI75 | |
| CD86 | Mouse IgG1, κ | CD86 | 942 | BD Biosciences | 2331 (FUN-1) | |
| CD87 | Mouse IgG1, κ | PLAUR | 5329 | BD Biosciences | VIM5 | |
| CD88 | Rabbit IgG | C5AR1 | 728 | BD Biosciences | C85-4124 | |
| CD89 | Mouse IgG1, κ | FCAR | 2204 | BD Biosciences | A59 | |
| CD8b | Mouse IgG2a, κ | CD8B | 926 | BD Biosciences | 2ST8.5H7 | |
| CD9 | Mouse IgG1, κ | CD9 | 928 | BD Biosciences | M-L13 | |
| CD90 | Mouse IgG1, κ | THY1 | 7070 | BD Biosciences | 5E10 | |
| CD91 | Mouse IgG1, κ | LRP1 | 4035 | BD Biosciences | A2MR-α2 | |
| CD92 | Mouse IgG2b | SLC44A1 | 23446 | Abcam | VIM-15b | |
| CD94 | Mouse IgG1, κ | KLRD1 | 3824 | BD Biosciences | HP-3D9 | |

Supplementary Table 1. Antibodies included in HT-FC panel, continued.

| Antigen | Isotype | NCBI Gene Name | Entrez Gene ID | Supplier | Clone | Note |
|------------------|----------------|----------------|----------------|----------------|--------------|--|
| CD95 | Mouse IgG1, κ | FAS | 355 | e-Bioscience | DX2 | |
| CD96 | Mouse IgG1 | CD96 | 10225 | Biolegend | NK92.39 | |
| CD97 | Mouse IgG1, κ | CD97 | 976 | BD Biosciences | VIM3b | |
| CD98 | Mouse IgG1, κ | SLC3A2 | 6520 | BD Biosciences | UM7F8 | |
| CD99 | Mouse IgG2a, κ | CD99 | 4267 | BD Biosciences | TÜ12 | |
| CDH3 | Mouse IgG1 | CDH3 | 1001 | R&D Systems | 104805 | |
| CDH6 | Mouse IgG1 | CDH6 | 1004 | R&D Systems | 427909 | |
| CDw198 | Rat IgG2b | CCR8 | 1237 | R&D Systems | 191704 | |
| CDw199 | Mouse IgG2a, κ | CCR9 | 10803 | BD Biosciences | 112509 | |
| CDw210 | Rat IgG2a, κ | IL10RA | 3587 | BD Biosciences | 3F9 | |
| CDw218a | Mouse IgG1, κ | IL18R1 | 8809 | e-Bioscience | H44 | |
| CDw329 | Mouse IgG1, κ | SIGLEC9 | 27180 | BD Biosciences | E10-286 | |
| CDw93 | Mouse IgG2b, κ | CD93 | 22918 | BD Biosciences | R139 | |
| CLA | Rat IgM, κ | SELPLG | 6404 | BD Biosciences | HECA-452 | Modified form of CD162 |
| CLIP | Mouse IgG1, κ | N/A | N/A | BD Biosciences | CerCLIP | MHC Class II associated invariant chain peptides |
| DCIR | Mouse IgG1, κ | CLEC4A | 50856 | BD Biosciences | I3-612 | |
| EGF-R | Mouse IgG2b, κ | EGFR | 1956 | BD Biosciences | EGFR1 | |
| FMC7 | Mouse IgM, κ | MS4A1 | 931 | BD Biosciences | FMC7 | |
| fMLP-R | Mouse IgG1, κ | FPR1 | 2357 | BD Biosciences | 5F1 | |
| HPRC | Mouse IgG1, κ | N/A | N/A | BD Biosciences | BB9 | Unknown surface glycoprotein |
| HLA-A2 | Mouse IgG2b, κ | HLA-A | 3105 | BD Biosciences | BB7.2 | |
| HLA-ABC | Mouse IgG1, κ | ABCA1 | 19 | BD Biosciences | DX17 | |
| HLA-DM | Mouse IgG1, κ | HFE | 3077 | BD Biosciences | MaP.DM1 | |
| HLA-DR | Mouse IgG2b, κ | HFE | 3077 | BD Biosciences | TU36 | |
| ITGB7 | Rat IgG2a, κ | ITGB7 | 3695 | BD Biosciences | FIB504 | |
| LTBR | Mouse IgG1, κ | LTBR | 4055 | BD Biosciences | hTNFR-RP-M12 | |
| MIC A/B | Mouse IgG2a, κ | MICA/MICB | 100507436/4277 | BD Biosciences | 6D4 | |
| PAC-1 | Mouse IgM, κ | DUSP2 | 1844 | BD Biosciences | PAC-1 | |
| Podoplanin | Rat IgG2a, λ | PDPN | 10630 | BioLegend | NC-08 | |
| SSEA-3 | Rat IgM | FUT4 | | BD Biosciences | MC631 | |
| SSEA-4 | Mouse IgG3 | FUT4 | | BD Biosciences | MC813-70 | |
| Stro-1 | Mouse IgM, λ | N/A | N/A | BioLegend | STRO-1 | Unknown surface antigen |
| TCR αβ | Mouse IgM, κ | TRATRB | 6955/6957 | BD Biosciences | T10B9.1A-31 | |
| TCR γδ | Mouse IgG1, κ | TRG/TRD | 6965/6964 | BD Biosciences | B1 | |
| TPBG | Mouse IgG1 | TPBG | 7162 | R&D Systems | 524744 | |
| Vβ8 TCR | Mouse IgG2b, κ | N/A | N/A | BD Biosciences | JR2 | Variable β8 subunit (Vβ8) of α/β T cell receptor (TCR) |
| Vδ2 TCR | Mouse IgG1, κ | N/A | N/A | BD Biosciences | B6 | Variable δ2 subunit (Vδ2) of γ/δ T cell receptor (TCR) |
| β2-microglobulin | Mouse IgM, κ | B2M | 567 | BD Biosciences | TÜ99 | |