

## Proteins Spotted for Immune Protein Array 1631

A	A1BG, AAK1, AARS, ABCF1, ABCF3, ABI1, ABL2, ABT1, ACAT2, ACPP, ACRBP, ACSL6, ACTA1, ACTB, ACTL7B, ACTL8, ACTR2, ACVR1, ACVR1C, ACVR2A, ADAM2, ADAM29, ADCK1, ADCK4, ADD1, ADRBK1, ADRBK2, ADSL, AFF4, AFP, AGR2, AHSG, AICDA, AIF1, AIFM1, AIFM2, AIFM3, AIM2, AK1, AK2, AK3, AK3L1, AK7, AKAP3, AKAP4, AKD2, AKT1, AKT2, AKT3, ALDOA, ALOX15, ALOX15B, ALPK1, ALX1, AMD1, AMOTL2, AMT, ANKRD13A, ANKRD45, ANXA1, ANXA11, ANXA2, AP2M1, APCS, APEX1, API5, APOBEC3G, APP, APPL1, AR, ARAF, AREG, ARHGDIA, ARHGDIB, ARHGDIG, ARIH2, ARL1, ARMC3, ARNT, ARRB1, ARX, ASB1, ASCL1, ASNA1, ASPSCR1, ATF1, ATF2, ATF3, ATF4, ATF5, ATG12, ATG7, ATIC, ATP5B, ATXN3, AURKA, AURKB, AXIN1, AXL_int, AXUD1
B	BACH1, BAD, BAG3, BAG4, BAGE2, BANK1, BASP1, BATF, BCKDK, BCL10, BCL2A1, BCL2L14, BCR, BDNF, BID, BIRC2, BIRC3, BIRC5, BIRC7, BLK, BLZF1, BMP7, BMPR1A, BMPR1B, BMPR2, BMX, BOLA3, BOP1, BPI, BRAF, BRD2, BRD3, BRD8, BRDT, BRSK1, BRSK2, BTF3, BTG1, BTG3, BTRC, BUB1, BUB1B, BUD31
C	C10orf119, C19orf50, C1D, C1orf174, C1orf216, C1orf57, C20orf43, C21orf2, C21orf33, C4BPA, C6, C6orf106, C9orf86, C9orf96, CA1, CA4, CA9, CAB39L, CABC1, CABYR, CAGE1, CALM2, CALM3, CALML4, CALR, CALR3, CALU, CAMK1, CAMK1G, CAMK2A, CAMK2B, CAMK2D, CAMK2G, CAMK4, CAMKK1, CAMKK2, CAMKV, CAPG, CARD8, CARD9, CARHSP1, CASP1, CASP10, CASP3, CASP4, CASP6, CASP7, CASP9, CASS4, CBFA2T3, CBFB, CBLC, CBX5, CCDC110, CCDC33, CCDC36, CCM2, CCNA1, CCNA2, CCNB1, CCNB1IP1, CCND1, CCND2, CCNH, CCNI, CCR5, CCRK, CCT3, CCT5, CD276, CD5L, CD96, CDC2, CDC20, CDC25A, CDC25C, CDC2L1, CDC2L6, CDC42, CDH19, CDK10, CDK14, CDK2, CDK3, CDK4, CDK5, CDK5R1, CDK7, CDK8, CDK9, CDKN1A, CDKN2A, CDKN2B, CDKN2C, CDKN2D, CDO1, CEACAM1, CEACAM7, CEACAM8, CEBPG, CEP55, CFL1, CHEK1, CHEK2, CHI3L1, CHIC2, CHN1, CHST4, CIDEB, CIDEc, CISH, CITED1, CKB, CKM, CKMT2, CKS1B, CLK1, CLK2, CLK3, CLUAP1, CMPK1, CNN1, CNOT2, CNOT8, CN RIP1, COL4A3BP, COMMD3, COPB2, COPEB, COPG2, COPS6, COTL1, COX6B2, COX6C, CPA4, CPM, CPXCR1, CRADD, CREB1, CREB5, CRISP2, CROT, CRX, CRYAB, CSAG1, CSAG2, CSK, CSNK1D, CSNK1G1, CSNK1G2, CSNK2A1, CSNK2A2, CST4, CSTB, CT45A1, CT47A1, CT62, CTAG1A, CTAG2, CTAGE1, CTAGE5, CTBP2, CTCFL, CTNNNA2, CTNNB1, CTNNBL1, CTSD, CTSE, CTTN, CUL4A, CUL5, CXCR4, CXCR6, CXorf48, Cxorf61, CXXC1, CYCS, CYLD, CYP1B1

D	DAPK1, DAPK2, DBNL, DCAF12, DCBLD2, DCDC2, DCLK1, DCLK2, DCT, DDB1, DDB2, DDI3, DDR1, DDR1_ext, DDR1_int, DDX43, DDX5, DDX53, DDX55, DEDD, DEK, DFFA, DGKA, DGUOK, DKK1, DKKL1, DLX1, DLX3, DLX4, DMAP1, DMPK, DMRTB1, DMRTC2, DNAJA1, DNAJA2, DNAJB1, DNM1L, DNM2, DNMT3L, DNNT, DOM3Z, DPF2, DPPA2, DR1, DRD2, DSTYK, DTYMK, DUSP10, DUSP11, DUSP12, DUSP13, DUSP14, DUSP18, DUSP4, DUSP6, DVL2, DYNC1LI2, DYRK2, DYRK3, DYRK4
E	E2F6, E6, E7, EAPP, EEF1A1, EEF1A2, EEF1D, EEF1G, EEF2K, EFHD2, EFS, EGFR_ext, EGFR_int, EGR2, EHF, EHMT2, EIF4A2, EIF4A3, EIF4E, EIF4EBP1, ELF1, ELF2, ELF4, ELF5, ELK1, ELK3, ELL3, ELMOD1, ELMOD3, ELOVL4, ENO1, ENO2, EPAS1, EPCAM, EPHA10, EPHA2, EPHA3_ext, EPHB3_int, EPHB4, EPS15, ERBB2, ERBB3_ext, ERBB3_int, ERCC2, ERCC3, ERCC5, ERG, ESR2, ESRRG, ETNK2, ETS2, ETV4, ETV6, ETV7, EWSR1, EXOSC10, EXOSC4, EXOSC8, EXT1, EXT2, EZH2, EZR
F	FADD, FAF1, FAIM, FAM133A, FAM46D, FAM48A, FAM50B, FANCC, FANCG, FAP, FAS, FASTK, FASTKD1, FATE1, FBXO9, FEN1, FES, FGF1, FGF13, FGFR1, FGFR1_ext, FGFR1_int, FGFR10P, FGFR2, FGFR2_ext, FGFR2_int, FGFR4_ext, FGFR4_int, FH, FHOD2, FIGF, FIP1L1, FKBP1B, FKBP3, FKBP5, FLCN, FLI1, FLT1, FMR1NB, FN3K, FOLH1, FOS, FOSL1, FOSL2, FOXA3, FOXI1, FOXN2, FOXR2, FOXS1, FRK, FSCN1, FTH1, FTHL17, FTSJ3, FUS, FYN, FZD1
G	G6PD, GADD45G, GAGE1, GAGE2C, GALK1, GAPDH, GAS2, GAS7, GATA1, GATA3, GATAD2A, GCLC, GDF15, GEM, GFAP, GGPS1, GIPC1, GK, GK2, GLRX3, GLS2, GMEB1, GMEB2, GMPS, GNA15, GNAI2, GNAI3, GNAO1, GNAZ, GNB1, GNB3, GNG11, GNG2, GNG3, GNG4, GNGT2, GOT1, GP2, GPA33, GPAT2, GPATCH2, GPC3, GPHN, GPX1, GRAP2, GRB10, GRB2, GRB7, GRK5, GRK6, GRM3, GSK3B, GSTT1, GTF2A2, GTF2B, GTF2E2, GTF2F1, GTF2F2, GTF2H1, GTF2H2D, GTPBP1, GUK1
H	H2AFY, HAGH, HAGHL, HAND1, HBG1, HCFC2, HCLS1, HDAC1, HDAC3, HDAC4, HES6, HEXIM1, HEYL, HIF1A, HIF3A, HINFP, HIPK1, HIPK4, HIST1H1C, HIST1H4I, HK2, HLX, HMG20B, HMGB2, HNF1B, HNRNPA2B1, HNRPUL1, HOMER2, HOOK1, HOPX, HORMAD1, HOXA1, HOXA9, HOXB13, HOXB6, HOXB7, HOXC10, HOXC8, HPCAL1, HPRT1, HRAS, HRH1, HRH2, HRSP12, HSBP1, HSF1, HSFY1, HSP90AA1, HSP90AB1, HSPA1A, HSPA5, HSPB8, HSPB9, HSPD1, HSPE1, HTATIP2, HTR1D, HTR2B, HUS1
I	ID1, ID2, IDI1, IDO1, IFI16, IFI35, IFIT1, IFIT5, IFITM1, IGF2, IGF2BP1, IGF2BP3, IGHG1, IGSF11, IKBKB, IKBKE, IKZF1, IKZF3, IL13RA1, IL13RA2, IL18, IL1A, IL1B, IL1F5, IL1F7, IL1RN, IL21R, IL24, IL8RB, ILF2, ILK, IMP3, IMPA1, IMPDH1, INA, ING4, INHBA, INPP1, INPP5B, IP6K1, IP6K2, IPMK, IRAK1, IRAK4, IRF4, IRF5, ISG20, IST1, ITGB6, ITGBL1, ITK, ITPK1, ITPKB

J	JAK3, JUNB, JUP
K	KAT2A, KATNB1, KCMF1, KCNIP3, KIAA0101, KIAA1984, KIF9, KIT, KIT_ext, KIT_int, KLF10, KLF12, KLF4, KLF7, KLHL12, KLK3, KRAS, KRT14, KRT15, KRT19, KRT4, KRT8
L	L3MBTL2, LAD1, LASP1, LASS2, LATS1, LCK, LCP1, LDB1, LDB2, LDHA, LDHB, LDHC, LEF1, LEMD1, LEPREL4, LGALS1, LGALS7, LGMN, LHFP, LIMK2, LIMS1, LIN28, LIPI, LMNA, LMO2, LNX1, LRDD, LRRFIP2, LSM1, LTA4H, LTV1, LUZP4, LY6K, LY86, LY96, LYL1, LYN, LYPD6B, LZTR1
M	MAEL, MAFG, MAGEA10, MAGEA4, MAGEB1, MAGEB2, MAGEB3, MAGEB4, MAGEB5, MAGEB6, MAGEC1, MAGEC2, MAGEC3, MAK, MAL, MALL, MAP1S, MAP2K1, MAP2K3, MAP2K5, MAP2K6, MAP2K7, MAP3K13, MAP3K14, MAP3K2, MAP3K6, MAP3K7, MAP4, MAP4K3, MAP4K5, MAPK1, MAPK10, MAPK11, MAPK12, MAPK13, MAPK14, MAPK3, MAPK6, MAPK7, MAPK8_tv1, MAPK8_tv2, MAPK9, MAPKAPK3, MAPKAPK5, MAPKSP1, MARK2, MARK3, MARK4, MAST1, MASTL, MATK, MATN3, MAX, MAZ, MCM5, MDM2, ME2, MECP2, MED16, MED17, MED21, MED22, MED24, MED30, MED4, MEF2A, MEF2C, MEIS2, MEIS3, MEOX2, METTL3, MGC42105, MIF, MITF, MKNK1, MKNK2, MLANA, MLF1, MLH1, MLKL, MLLT11, MLLT3, MLLT6, MLPH, MLX, MMP11, MMP14, MMP2, MMP24, MNAT1, MNDA, MOBKL2A, MORC1, MPP1, MPP3, MPP5, MPZL2, MRPL45, MRPL55, MRPS26, MRPS30, MRT4, MSC, MSH2, MSLN, MSN, MST4, MTCP1, MTERF, MTMR2, MTO1, MUSK, MUTYH, MX1, MX2, MYBL2, MYC, MYCBP, MYCBPAP, MYCL1, MYCN, MYD88, MYF6, MYNN, MYOG, MYOZ2, MYST2
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O	OAS2, ODC1, ODF1, ODF2, ODF3, ODF4, OGG1, OIP5, OLIG3, OSBPL9, OTOA, OVOL1, OXSR1

P	P4HB, PABPC1, PACSIN3, PAGE1, PAGE2B, PAGE5, PAK2, PAK4, PAK6, PAK7, PANK3, PAPSS2, PASD1, PATZ1, PAX3, PAX5, PAX8, PBX1, PBX3, PC, PCBD, PCBP2, PCGF2, PCK2, PCTK1, PCTK2, PCTK3, PDCD2L, PDCD5, PDCD6, PDCL3, PDE4A, PDGFB, PDGFRA, PDGFRA_ext, PDGFRB, PDGFRB_ext, PDGFRL, PDIK1L, PDK1, PDK2, PDK3, PDK4, PDPK1, PDXK, PEBP1, PECI, PELO, PFKFB3, PFKFB4, PFKP, PFN2, PHB2, PHF1, PHF11, PHF17, PHF5A, PHF7, PHIP, PHKG1, PHKG2, PHLDA1, PHLDA2, PHTF1, PIAS2, PIK3C3, PIK3R1, PIM1, PIM2, PIN1, PIP, PIP4K2B, PIP4K2C, PIP5K1B, PIR, PITRM1, PITX2, PIWIL2, PKDCC, PKLR, PKM2, PKMYT1, PKNOX1, PLAC1, PLAGL2, PLD2, PLEKHA5, PLK1, PLK2, PLK4, PLUNC, PMEL, PMF1, PMVK, PNPT1, POLR2I, POTE, POTEH, POU2AF1, POU2F2, POU5F1, PPARD, PPARG, PPIC, PPID, PPM1A, PPP1CB, PPP1R14A, PPP1R2P9, PPP2CB, PPP2R1A, PPP2R1B, PPP2R2B, PPP2R2C, PPP2R4, PPP2R5A, PPP2R5C, PPP3CA, PPP3CC, PPP3R1, PPP4C, PPP4R1, PQBP1, PRAME, PRC1, PRCC, PRDM4, PRDX1, PRDX6, PRELID1, PRKAA1, PRKAA2, PRKACA, PRKACB, PRKACG, PRKAG3, PRKAR1A, PRKCB, PRKCH, PRKCI, PRKCZ, PRKD2, PRKD3, PRKRA, PRKX, PRL, PRM1, PRM2, PRPF4, PRPS2, PRSS50, PRSS54, PSCA, PSG1, PSG11, PSIP1, PSMA6, PSMB10, PSMB3, PSMB8, PSMB9, PSMD4, PSMD9, PSME1, PSME2, PSME3, PTEN, PTGDR, PTGER3, PTK2_iso1, PTK2_iso2, PTK6, PTK7_ext, PTK7_int, PTP4A1, PTP4A2, PTP4A3, PTPN1, PTPN11, PTPN2, PTPN20A, PTPN22, PTPN4, PTPN6, PTRH1, PTTG1IP, PXK, PXN, PYCR1, PYGB, PYGO2
R	RAB38, RABEP1, RAC1, RAC2, RAD21, RAD23A, RAD23B, RAD51, RAD51L1, RAD51L3, RAF1, RAG1, RAGE, RALBP1, RAN, RAP1GDS1, RAPGEF4, RARA, RARB, RB1, RBKS, RBM28, RBM46, RBM6, RBM7, RBMS1, RBPJ, RCAN1, RCC2, RDBP, REG3A, RERG, RET, RET_ext, RET_int, REXO4, RFK, RFX3, RG9MTD1, RGS5, RHOA, RHOB, RHOH, RHOT2, RHOXF2, RING1, RIOK2, RIOK3, RIPK1, RIPK2, RIPK3, RNASEL, RNF38, RNF40, RNF6, RNF7, RNGTT, ROPN1, RORC, RPA2, RPL10, RPL10A, RPL11, RPL13A, RPL15, RPL17, RPL18, RPL18A, RPL22, RPL27A, RPL28, RPL30, RPL31, RPL32, RPL34, RPL37A, RPL5, RPL7A, RPLP1, RPS15A, RPS2, RPS27A, RPS6KA1, RPS6KA2, RPS6KA3, RPS6KA4, RPS6KA5, RPS6KA6, RPS6KB1, RPS6KB2, RPS6KL1, RPS7, RQCD1, RRAGC, RRAS, RRAS2, RUFY1, RUNX1T1, RUVBL1, RXRB

S	S100A6, S100A7, S100A8, S100A9, S100P, SAGE1, SART3, SAV1, SBDS, SCAND1, SCEL, SCFD1, SCGB1D2, SCMH1, SCP2, SCYL3, SDCCAG10, SDCCAG3, SDCCAG8, SDHB, SDHC, SEC14L2, SECISBP2, SEMG1, SEPT4a, SEPT5a, SEPT6a, SEPT9a, SERPINB5, SERPINE2, SERPINF2, SET, SFN, SFRS5, SGK1, SGK196, SGK2, SGK3, SGOL1, SGSM3, SH2B1, SH2D1A, SH3BGRL3, SH3GL1, SH3GLB1, SHPK, SIAH1, SIK2, SIVA1, SIX1, SKAP1, SLA, SLA2, SLC25A6, SLCO6A1, SMAD2, SMAD4, SMAD5, SMAD9, SMARCD1, SMARCE1, SMN2, SNCA, SNX6, SOCS2, SOCS3, SOCS5, SOCS6, SOD1, SOD2, SORD, SOX10, SOX15, SOX2, SP1, SP110, SP2, SPA17, SPACA3, SPAG4, SPAG9, SPANXN1, SPANXN2, SPANXN4, SPARC, SPARCL1, SPATA19, SPATA25, SPDEF, SPEG, SPG20, SPIB, SPIC, SPINLW1, SPO11, SQSTM1, SRM, SRP19, SRPK1, SRPK2, SRPX2, SS18L1, SSB, SSBP4, SSNA1, SSX1, SSX2, SSX2b, SSX3, SSX4, SSX4B, SSX5, SSX7, STAM, STAM2, STAP1, STARD7, STAT1, STAT3, STAT4, STAT5A, STAU1, STIP1, STK10, STK11, STK16, STK17B, STK24, STK25, STK3, STK32A, STK32B, STK32C, STK33, STK38, STK38L, STK4, STMN1, STRADA, STRADB, STUB1, STYX, STYXL1, SUB1, SUCLA2, SUFU, SUMO2, SUPT4H1, SYCE1, SYCP1, SYK
T	TACC1, TACSTD2, TADA2L, TADA3L, TAF5L, TAF6L, TAF7L, TAF9, TAGLN, TAOK3, TARDBP, TBC1D2, TBC1D5, TBCB, TBK1, TBL1X, TBPL1, TBX5, TBX6, TCEA2, TCEAL1, TCEB3, TCF12, TCF21, TCF4, TCL1A, TDRD1, TDRD3, TDRKH, TEAD2, TEAD3, TEK, TERT, TEX101, TEX14, TFAP4, TFCP2, TFCP2L1, TFDP1, TFDP2, TFDP3, TFE3, TFEB, TFEC, TFG, TFPT, TFRC, TGIFBR2, TGIF1, TGIF2, THEG, THRA, THRB, THUMPD1, TIE1_ext, TIE1_int, TIMP3, TIRAP, TK1, TKT, TLK1, TLK2, TLX2, TMEFF1, TMEFF2, TMEM108, TNFAIP6, TNFAIP8, TNFRSF11B, TNIP1, TNK2, TOLLIP, TOM1, TP53, TP53RK, TP63, TP73, TPBG, TPI1, TPM1, TPM3, TPM4, TPTE, TRAF1, TRAF2, TRAF3IP1, TRAF4, TRAF5, TRAF6, TRAIP, TRIB2, TRIB3, TRIM32, TRIM37, TRIP11, TROVE2, TSC22D1, TSC22D4, TSG101, TSGA10, TSPY1, TSPY2, TSPY3, TSSK1B, TSSK2, TSSK3, TSSK6, TTBK2, TTF2, TTK, TTRAP, TUBA4A, TUBB, TUBGCP3, TULP2, TWF1, TWF2, TWIST2, TXN2, TXNDC3, TXNRD1, TYMS, TYR, TYRO3, TYRO3_int, TYRP1
U	UBA1, UBA3, UBE2I, UBE2Q1, UBE2V1, UBP1, UCHL3, UCKL1, UHMK1, ULK2, ULK4, UQCRC1, USF1, USF2, USH1C, USP10, UTP14A, UXT
V	VAV1, VAX2, VCL, VDR, VEGFB, VGLL1, VHL, VIM, VPS24, VPS45, VPS4A, VPS54, VPS72, VRK3
W	WAS, WDR45L, WDR46, WISP3, WT1, WWOX, WWTR1
X	XAGE1D, XAGE2, XAGE4, XBP1, XIAP, XYLB
Y	YARS, YEATS4, YTHDF2, YWHAE, YWHAG

Z	ZAK, ZAP70, ZBTB16, ZBTB25, ZBTB32, ZBTB7B, ZC4H2, ZFP36L1, ZHX2, ZKSCAN1, ZKSCAN3, ZKSCAN4, ZKSCAN5, ZMAT2, ZMAT3, ZMYM2, ZMYND11, ZMYND8, ZNF136, ZNF165, ZNF169, ZNF174, ZNF187, ZNF19, ZNF193, ZNF202, ZNF207, ZNF256, ZNF274, ZNF276, ZNF277, ZNF282, ZNF3, ZNF323, ZNF331, ZNF346, ZNF35, ZNF354A, ZNF37A, ZNF384, ZNF394, ZNF398, ZNF41, ZNF444, ZNF449, ZNF45, ZNF496, ZNF593, ZNF645, ZNF70, ZNHIT3, ZNRD1, ZSCAN12, ZSCAN16, ZSCAN18, ZSCAN21
<b>Control Proteins for BCCP tag:</b> beta-galactosidase-BCCP-Myc (ZZ_con1), BCCP-Myc (ZZ_con2), beta-galactosidase-BCCP-no Myc tag (ZZ_con3), BCCP only-no Myc tag (ZZ_con4)	