

Immuno-Oncology panel 4 (direct-MRM MS, pending)

(397 analytes pending validation)

Gene Symbol	Target protein name	UniProt ID (& link)	Modification*
ABCE1	ATP-binding cassette sub-family E member 1	P61221	
ABCE1	ATP-binding cassette sub-family E member 1	P61221	
ABI1	Abl interactor 1	Q8I2P0	
ABI1	Abl interactor 1	Q8I2P0	
AKT1	RAC-alpha serine/threonine-protein kinase	P31749	
AKT1	RAC-alpha serine/threonine-protein kinase	P31749	
ANXA1	Annexin A1	P04083	
ANXA4	annexin A4	P09525	
ANXA5	Annexin A5	P08758	
ANXA5	Annexin A5	P08758	
ANXA6	annexin A6	P08133	
B2M	Beta-2-microglobulin	P61769	
B2M	Beta-2-microglobulin	P61769	
BCAP31	B-cell receptor-associated protein 31	P51572	
BCAP31	B-cell receptor-associated protein 31	P51572	
BCL2	Apoptosis regulator Bcl-2	P10415	
BCL2L1	Bcl-2-like protein 1	Q07817	
BCL2L11	Bcl-2-like protein 11	Q43521	
BCL2L11	Bcl-2-like protein 11	Q43521	
BCL2L2	Bcl-2-like protein 2	Q92843	
BCL2L2	Bcl-2-like protein 2	Q92843	
BCL3	B-cell lymphoma 3 protein	P20749	
BCL3	B-cell lymphoma 3 protein	P20749	
BID	BH3-interacting domain death agonist	P55957	
BID	BH3-interacting domain death agonist	P55957	
BNIP3L	BCL2/adenovirus E1B 19 kDa protein-interacting protein 3-like	Q60238	
BNIP3L	BCL2/adenovirus E1B 19 kDa protein-interacting protein 3-like	Q60238	
BPGM	Bisphosphoglycerate mutase	P07738	
BPGM	Bisphosphoglycerate mutase	P07738	
BST2	Bone marrow stromal antigen 2	Q10589	
BST2	Bone marrow stromal antigen 2	Q10589	
C1QA	Complement C1q subcomponent subunit A	P02745	
C1QA	Complement C1q subcomponent subunit A	P02745	
C1QB	Complement C1q subcomponent subunit B	P02746	
C1QB	Complement C1q subcomponent subunit B	P02746	
C1QBP	complement component 1, q subcomponent binding protein	Q07021	
C1QC	Complement C1q subcomponent subunit C	P02747	
C1QC	Complement C1q subcomponent subunit C	P02747	
C1R	Complement C1r subcomponent	P00736	
C1R	Complement C1r subcomponent	P00736	
C1RL	Complement C1r subcomponent-like protein	Q9NZP8	
C1RL	Complement C1r subcomponent-like protein	Q9NZP8	
C1S	Complement C1s subcomponent	P09871	
C1S	Complement C1s subcomponent	P09871	
C2	Complement C2	P06681	
C2	Complement C2	P06681	
C3	Complement C3	P01024	
C3	Complement C3	P01024	
C4A	Complement C4-A	P0C0L4	
C4A	Complement C4-A	P0C0L4	
C4BPA	C4b-binding protein alpha chain	P04003	
C4BPA	C4b-binding protein alpha chain	P04003	
C4BPB	C4b-binding protein beta chain	P20851	
C4BPB	C4b-binding protein beta chain	P20851	
C5	Complement C5	P01031	
C5	Complement C5	P01031	
C5AR1	C5a anaphylatoxin chemotactic receptor 1	P21730	
C6	Complement component C6	P13671	
C6	Complement component C6	P13671	
C7	Complement component C7	P10643	
C7	Complement component C7	P10643	
C8A	Complement component C8 alpha chain	P07357	
C8A	Complement component C8 alpha chain	P07357	
C8B	Complement component C8 beta chain	P07358	
C8B	Complement component C8 beta chain	P07358	
C8G	Complement component C8 gamma chain	P07360	
C8G	Complement component C8 gamma chain	P07360	
C9	Complement component C9	P02748	

*blanks mean the assay detects the non-modified peptide sequence

C9	Complement component C9	P02748	
CAMK2D	Calcium/calmodulin-dependent protein kinase type II subunit delta	Q13557	
CAMK2D	Calcium/calmodulin-dependent protein kinase type II subunit delta	Q13557	
CAMK2G	Calcium/calmodulin-dependent protein kinase type II subunit gamma	Q13555	
CAMK2G	Calcium/calmodulin-dependent protein kinase type II subunit gamma	Q13555	
CAPG	Macrophage-capping protein	P40121	
CASP1	Caspase-1	P29466	
CASP1	Caspase-1	P29466	
CASP10	Caspase-10	Q92851	
CASP10	Caspase-10	Q92851	
CASP2	Caspase-2	P42575	
CASP2	Caspase-2	P42575	
CASP3	Caspase-3	P42574	
CASP3	Caspase-3	P42574	
CASP4	Caspase-4	P49662	
CASP6	Caspase-6	P55212	
CASP6	Caspase-6	P55212	
CASP7	Caspase-7	P55210	
CASP7	Caspase-7	P55210	
CASP8	Caspase-8	Q14790	
CASP8	Caspase-8	Q14790	
CASP9	Caspase-9	P55211	
CAV1	Caveolin-1	Q03135	
CAV1	Caveolin-1	Q03135	
CCR1	C-C chemokine receptor type 1	P32246	
CCR1	C-C chemokine receptor type 1	P32246	
CD14	Monocyte differentiation antigen CD14	P08571	
CD2	T-cell surface antigen CD2	P06729	
CD36	Platelet glycoprotein 4	P16671	
CD36	Platelet glycoprotein 4	P16671	
CD38	ADP-ribosyl cyclase/cyclic ADP-ribose hydrolase 1	P28907	
CD38	ADP-ribosyl cyclase/cyclic ADP-ribose hydrolase 1	P28907	
CD3D	T-cell surface glycoprotein CD3 delta chain	P04234	
CD3D	T-cell surface glycoprotein CD3 delta chain	P04234	
CD3E	T-cell surface glycoprotein CD3 epsilon chain	P07766	
CD46	Membrane cofactor protein	P15529	
CD46	Membrane cofactor protein	P15529	
CD55	Complement decay-accelerating factor	P08174	
CD55	Complement decay-accelerating factor	P08174	
CD59	CD59 glycoprotein	P13987	
CD81	CD81 antigen	P60033	
CD81	CD81 antigen	P60033	
CD82	CD82 antigen	P27701	
CD82	CD82 antigen	P27701	
CD8A	T-cell surface glycoprotein CD8 alpha chain	P01732	
CD9	CD9 antigen	P21926	
CD9	CD9 antigen	P21926	
CFB	Complement factor B	P00751	
CFB	Complement factor B	P00751	
CFD	Complement factor D	P00746	
CFD	Complement factor D	P00746	
CFH	Complement factor H	P08603	
CFH	Complement factor H	P08603	
CFHR2	Complement factor H-related protein 2	P36980	
CFI	Complement factor I	P05156	
CFP	Properdin	P27918	
CHI3L1	Chitinase-3-like protein 1	P36222	
CHI3L1	Chitinase-3-like protein 1	P36222	
CLU	clusterin	P10909	
CMA1	Chymase (EC 3.4.21.39) (Alpha-chymase) (Mast cell protease I)	P23946	
CREB1	Cyclic AMP-responsive element-binding protein 1	P16220	
CREBBP	CREB-binding protein	Q92793	
CREBBP	CREB-binding protein	Q92793	
CSF1	Macrophage colony-stimulating factor 1	P09603	
CSF1	Macrophage colony-stimulating factor 1	P09603	
CSK	Tyrosine-protein kinase CSK	P41240	
CSK	Tyrosine-protein kinase CSK	P41240	
CTR9	RNA polymerase-associated protein CTR9 homolog	Q6PD62	
CTSB	Cathepsin B	P07858	
CTSB	Cathepsin B	P07858	
CTSE	Cathepsin E	P14091	

CTSE	Cathepsin E	P14091	
CTSH	Pro-cathepsin H	P09668	
CTSK	Cathepsin K	P43235	
CTSS	Cathepsin S	P25774	
CTSS	Cathepsin S	P25774	
CXCR4	C-X-C chemokine receptor type 4	P61073	
DAK (TKFC)	Bifunctional ATP-dependent dihydroxyacetone kinase/FAD-AMP lyase (cyclizing)	Q3LXA3	
DAP3	28S ribosomal protein S29, mitochondrial	P51398	
DARS	Aspartate--tRNA ligase, cytoplasmic	P14868	
DARS	Aspartate--tRNA ligase, cytoplasmic	P14868	
DDX3X	ATP-dependent RNA helicase DDX3X	Q00571	
DEGS1	Sphingolipid delta(4)-desaturase DES1	Q15121	
DPP4	Dipeptidyl peptidase 4	P27487	
DPP4	Dipeptidyl peptidase 4	P27487	
DUSP3	Dual specificity protein phosphatase 3 (EC 3.1.3.16) (EC 3.1.3.48) (dual specificity protein phosphatase vhhk)	P51452	
DUSP3	Dual specificity protein phosphatase 3 (EC 3.1.3.16) (EC 3.1.3.48) (dual specificity protein phosphatase vhhk)	P51452	
EFNA1	Ephrin-A1	P20827	
EFNA1	Ephrin-A1	P20827	
EGR1	Early growth response protein 1	P18146	
ELANE	Neutrophil elastase	P08246	
ELANE	Neutrophil elastase	P08246	
EPCAM	epithelial cell adhesion molecule	P16422	
F2	Prothrombin	P00734	
F2	Prothrombin	P00734	
FAS	Tumor necrosis factor receptor superfamily member 6	P25445	
FCER1G	High affinity immunoglobulin epsilon receptor subunit gamma	P30273	
FCER1G	High affinity immunoglobulin epsilon receptor subunit gamma	P30273	
FCGR1A	High affinity immunoglobulin gamma Fc receptor I	P12314	
FCGR1A	High affinity immunoglobulin gamma Fc receptor I	P12314	
FCN1	Ficolin-1	Q00602	
FCN3	Ficolin-3	Q75636	
GBP1	Guanylate-binding protein 1	P32455	
GBP1	Guanylate-binding protein 1	P32455	
GCA	Grancalcin	P28676	
GCA	Grancalcin	P28676	
GPLD1	Phosphatidylinositol-glycan-specific phospholipase D	P80108	
GZMA	Granzyme A	P12544	
HCLS1	Hematopoietic lineage cell-specific protein	P14317	
HCLS1	Hematopoietic lineage cell-specific protein	P14317	
HLA-DMB	HLA class II histocompatibility antigen, DM beta chain	P28068	
HLA-DMB	HLA class II histocompatibility antigen, DM beta chain	P28068	
HLA-DRA	HLA class II histocompatibility antigen, DR alpha chain	P01903	
HLA-G	HLA class I histocompatibility antigen, alpha chain G	P17693	
ICAM1	Intercellular adhesion molecule 1	P05362	
ICAM1	Intercellular adhesion molecule 1	P05362	
IDH2	isocitrate dehydrogenase 2 (NADP+), mitochondrial	P48735	
IDO1	Indoleamine 2,3-dioxygenase 1	P14902	
IFI27	Interferon alpha-inducible protein 27, mitochondrial	P40305	
IFI30	Gamma-interferon-inducible lysosomal thiol reductase	P13284	
IFI35	Interferon-induced 35 kDa protein	P80217	
IFI35	Interferon-induced 35 kDa protein	P80217	
IFI44	Interferon-induced protein 44	Q8TCB0	
IFI44L	Interferon-induced protein 44-like	Q53G44	
IFI44L	Interferon-induced protein 44-like	Q53G44	
IFIH1	Interferon-induced helicase C domain-containing protein 1	Q9BYX4	
IFIH1	Interferon-induced helicase C domain-containing protein 1	Q9BYX4	
IFIT1	Interferon-induced protein with tetratricopeptide repeats 1	P09914	
IFIT2	Interferon-induced protein with tetratricopeptide repeats 2	P09913	
IFIT3	Interferon-induced protein with tetratricopeptide repeats 3	Q14879	
IFITM3	Interferon-induced transmembrane protein 3	Q01628	
IGF2R	Cation-independent mannose-6-phosphate receptor	P11717	
IGFBP6	Insulin-like growth factor-binding protein 6	P24592	
IGFBP6	Insulin-like growth factor-binding protein 6	P24592	
IKKB	Inhibitor of nuclear factor kappa-B kinase subunit beta	Q14920	
IKKB	Inhibitor of nuclear factor kappa-B kinase subunit beta	Q14920	
IL16	Pro-interleukin-16	Q14005	
IL16	Pro-interleukin-16	Q14005	
IL17RA	Interleukin-17 receptor A	Q96F46	
IL17RA	Interleukin-17 receptor A	Q96F46	
IL18	Interleukin-18	Q14116	
IL1R2	Interleukin-1 receptor type 2	P27930	

IL1R2	Interleukin-1 receptor type 2	P27930	
IL1RAP	Interleukin-1 receptor accessory protein	Q9NPH3	
IL6ST	Interleukin-6 receptor subunit beta	P40189	
ILF2	interleukin enhancer binding factor 2, 45kDa	Q12905	
ILF3	interleukin enhancer binding factor 3, 90kDa	Q12906	
IRAK1	Interleukin-1 receptor-associated kinase 1	P51617	
IRAK1	Interleukin-1 receptor-associated kinase 1	P51617	
IRAK4	Interleukin-1 receptor-associated kinase 4	Q9NWX3	
IRF2	Interferon regulatory factor 2	P14316	
IRF6	Interferon regulatory factor 6	Q14896	
IRF6	Interferon regulatory factor 6	Q14896	
IRF7	Interferon regulatory factor 7	Q92985	
IRF9	Interferon regulatory factor 9	Q00978	
IRF9	Interferon regulatory factor 9	Q00978	
ISG20	Interferon-stimulated gene 20 kDa protein	Q96A26	
ISG20	Interferon-stimulated gene 20 kDa protein	Q96A26	
ITGAL	Integrin alpha-L	P20701	
ITGAL	Integrin alpha-L	P20701	
ITGB1	integrin, beta 1 (fibronectin receptor, beta polypeptide, antigen CD29 includes MDF2, MSK12)	P05556	
ITGB2	Integrin beta-2	P05107	
ITGB2	Integrin beta-2	P05107	
KARS	lysyl-tRNA synthetase	Q15046	
KRT1	Keratin, type II cytoskeletal 1	P04264	
KRT1	Keratin, type II cytoskeletal 1	P04264	
LCP2	Lymphocyte cytosolic protein 2	Q13094	
LCP2	Lymphocyte cytosolic protein 2	Q13094	
LGALS1	Lectin, galactoside-binding, soluble, 1 (galectin 1)	P09382	
LGALS3	Galectin-3	P17931	
LGALS3BP	Galectin-3-binding protein	Q08380	
LTA4H	Leukotriene A-4 hydrolase	P09960	
LTA4H	Leukotriene A-4 hydrolase	P09960	
LTBP2	Latent-transforming growth factor beta-binding protein 2	Q14767	
LTBP2	Latent-transforming growth factor beta-binding protein 2	Q14767	
LYN	Tyrosine-protein kinase Lyn	P07948	
LYN	Tyrosine-protein kinase Lyn	P07948	
MAP3K7IP1	TGF-beta-activated kinase 1 and MAP3K7-binding protein 1	Q9NWX3	
MIF	Macrophage migration inhibitory factor	P14174	
MIF	Macrophage migration inhibitory factor	P14174	
MSH6	mutS homolog 6 (E. coli)	P52701	
MSN	moesin	P26038	
MSR1	Macrophage scavenger receptor types I and II	P21757	
MSR1	Macrophage scavenger receptor types I and II	P21757	
MTIF2	Translation initiation factor IF-2, mitochondrial	P46199	
MTIF2	Translation initiation factor IF-2, mitochondrial	P46199	
MYD88	Myeloid differentiation primary response protein MyD88	Q99836	
MYD88	Myeloid differentiation primary response protein MyD88	Q99836	
NCF4	Neutrophil cytosol factor 4	Q15080	
NCF4	Neutrophil cytosol factor 4	Q15080	
NCK1	Cytoplasmic protein NCK1	P16333	
NCK1	Cytoplasmic protein NCK1	P16333	
NFKB1	Nuclear factor NF-kappa-B p105 subunit	P19838	
NFKB1	Nuclear factor NF-kappa-B p105 subunit	P19838	
NFKB2	Nuclear factor NF-kappa-B p100 subunit	Q00653	
NFKB2	Nuclear factor NF-kappa-B p100 subunit	Q00653	
NFKBIA	NF-kappa-B inhibitor alpha	P25963	
NFKBIB	NF-kappa-B inhibitor beta	Q15653	
NFKBIB	NF-kappa-B inhibitor beta	Q15653	
NFKBIE	NF-kappa-B inhibitor epsilon	Q00221	
NFKBIE	NF-kappa-B inhibitor epsilon	Q00221	
NME1	Nucleoside diphosphate kinase A	P15531	
NOTCH2	Neurogenic locus notch homolog protein 2	Q04721	
NPEPPS	aminopeptidase puromycin sensitive	P55786	
NPM1	Nucleophosmin	P06748	
NPM1	Nucleophosmin	P06748	
OTUB1	OTU domain, ubiquitin aldehyde binding 1	Q96FW1	
PARP1	poly (ADP-ribose) polymerase 1	P09874	
PARP12	Protein mono-ADP-ribosyltransferase PARP12	Q9H019	
PARP12	Protein mono-ADP-ribosyltransferase PARP12	Q9H019	
PARP14	Protein mono-ADP-ribosyltransferase PARP14	Q460N5	
PARP14	Protein mono-ADP-ribosyltransferase PARP14	Q460N5	
PARP9	Protein mono-ADP-ribosyltransferase PARP9	Q8IXQ6	

PARP9	Protein mono-ADP-ribosyltransferase PARP9	Q8IXQ6	
PAWR	PRKc apoptosis WT1 regulator protein	Q96IZ0	
PCBP1	poly(rC) binding protein 1	Q15365	
PDCD2L	Programmed cell death protein 2-like	Q9BRP1	
PDCD2L	Programmed cell death protein 2-like	Q9BRP1	
PDCD4	Programmed cell death protein 4	Q53EL6	
PDCD4	Programmed cell death protein 4	Q53EL6	
PECAM1	Platelet endothelial cell adhesion molecule	P16284	
PECAM1	Platelet endothelial cell adhesion molecule	P16284	
PF4	Platelet factor 4	P02776	
PLCB1	1-phosphatidylinositol 4,5-bisphosphate phosphodiesterase beta-1	Q9NQ66	
PML	Protein PML	P29590	
PML	Protein PML	P29590	
POLR3C	DNA-directed RNA polymerase III subunit RPC3	Q9BU14	
POLR3C	DNA-directed RNA polymerase III subunit RPC3	Q9BU14	
PRKCB	Protein kinase C beta type	P05771	
PSMA2	Proteasome subunit alpha type-2	P25787	
PSMA2	Proteasome subunit alpha type-2	P25787	
PSMA3	Proteasome subunit alpha type-3	P25788	
PSMA3	Proteasome subunit alpha type-3	P25788	
PSMB2	Proteasome subunit beta type-2	P49721	
PSMB2	Proteasome subunit beta type-2	P49721	
PSMB8	Proteasome subunit beta type-8	P28062	
PSMB8	Proteasome subunit beta type-8	P28062	
PSMB9	Proteasome subunit beta type-9	P28065	
PSMB9	Proteasome subunit beta type-9	P28065	
PSME1	Proteasome activator complex subunit 1	Q06323	
PSME2	Proteasome activator complex subunit 2	Q9UL46	
PSME2	Proteasome activator complex subunit 2	Q9UL46	
PSPC1	paraspeckle component 1	Q8WXF1	
PTPN11	Tyrosine-protein phosphatase non-receptor type 11	Q06124	
PTPN11	Tyrosine-protein phosphatase non-receptor type 11	Q06124	
PTPN6	Tyrosine-protein phosphatase non-receptor type 6	P29350	
PTPRC	Receptor-type tyrosine-protein phosphatase C	P08575	
PTPRC	Receptor-type tyrosine-protein phosphatase C	P08575	
RELA	Transcription factor p65	Q04206	
RELA	Transcription factor p65	Q04206	
RIPK1	Receptor-interacting serine/threonine-protein kinase 1	Q13546	
RIPK1	Receptor-interacting serine/threonine-protein kinase 1	Q13546	
RIPK2	Receptor-interacting serine/threonine-protein kinase 2	Q43353	
RIPK2	Receptor-interacting serine/threonine-protein kinase 2	Q43353	
RPS27A	Ubiquitin-40S ribosomal protein S27a	P62979	
S100A13	Protein S100-A13	Q99584	
S100A13	Protein S100-A13	Q99584	
S100A14	Protein S100-A14	Q9HCY8	
S100A8	Protein S100-A8	P05109	
S100A8	Protein S100-A8	P05109	
S100A9	Protein S100-A9	P06702	
S100A9	Protein S100-A9	P06702	
S100A9	Protein S100-A9	P06702	
SEMA4D	Semaphorin-4D	Q92854	
SEMA4D	Semaphorin-4D	Q92854	
SERPINB1	serpin peptidase inhibitor, clade B (ovalbumin), member 1	P30740	
SERPING1	Plasma protease C1 inhibitor	P05155	
SERPING1	Plasma protease C1 inhibitor	P05155	
SMAD1	Mothers against decapentaplegic homolog 1	Q15797	
SMAD1	Mothers against decapentaplegic homolog 1	Q15797	
SMAD2	Mothers against decapentaplegic homolog 2	Q15796	
SMAD2	Mothers against decapentaplegic homolog 2	Q15796	
SMAD3	Mothers against decapentaplegic homolog 3	P84022	
SMAD3	Mothers against decapentaplegic homolog 3	P84022	
SOD2	Superoxide dismutase	P04179	
SOD2	Superoxide dismutase	P04179	
SP100	Nuclear autoantigen Sp-100	P23497	
SP100	Nuclear autoantigen Sp-100	P23497	
SPP1	Osteopontin	P10451	
STAB1	Stabilin-1	Q9NY15	
STAB1	Stabilin-1	Q9NY15	
STAM2	Signal transducing adapter molecule 2	Q75886	
STAM2	Signal transducing adapter molecule 2	Q75886	
STAT1	Signal transducer and activator of transcription 1-alpha/beta	P42224	

STAT2	Signal transducer and activator of transcription 2	P52630	
STAT2	Signal transducer and activator of transcription 2	P52630	
STAT3	Signal transducer and activator of transcription 3	P40763	
STAT5A	Signal transducer and activator of transcription 5A	P42229	
STOML2	stomatin (EPB72)-like 2	Q9UJZ1	
SUMO1	Small ubiquitin-related modifier 1	P63165	
TAP1	Antigen peptide transporter 1	Q03518	
TCIRG1	V-type proton ATPase 116 kDa subunit a isoform 3	Q13488	
TGFB1	Transforming growth factor beta-1 proprotein	P01137	
TGFBI	Transforming growth factor-beta-induced protein ig-h3	Q15582	
TGFBI	Transforming growth factor-beta-induced protein ig-h3	Q15582	
TGFBR3	Transforming growth factor beta receptor type 3	Q03167	
TGFBR3	Transforming growth factor beta receptor type 3	Q03167	
TGFBRAP1	Transforming growth factor-beta receptor-associated protein 1	Q8WUJ2	
TGFBRAP1	Transforming growth factor-beta receptor-associated protein 1	Q8WUJ2	
THY1	Thy-1 membrane glycoprotein	P04216	
THY1	Thy-1 membrane glycoprotein	P04216	
TIMP1	Metalloproteinase inhibitor 1	P01033	
TIMP1	Metalloproteinase inhibitor 1	P01033	
TLR2	Toll-like receptor 2	Q60603	
TLR2	Toll-like receptor 2	Q60603	
TLR3	Toll-like receptor 3	Q15455	
TLR3	Toll-like receptor 3	Q15455	
TNFAIP2	Tumor necrosis factor alpha-induced protein 2	Q03169	
TNFAIP2	Tumor necrosis factor alpha-induced protein 2	Q03169	
TNFAIP8	Tumor necrosis factor alpha-induced protein 8	Q95379	
TNFAIP8	Tumor necrosis factor alpha-induced protein 8	Q95379	
TNFSF10	Tumor necrosis factor ligand superfamily member 10	P50591	
TPD52	Tumor protein D52	P55327	
TPD52	Tumor protein D52	P55327	
TRAF2	TNF receptor-associated factor 2	Q12933	
TRAF2	TNF receptor-associated factor 2	Q12933	
TRIM28	tripartite motif-containing 28	Q13263	
TRIM56	E3 ubiquitin-protein ligase TRIM56	Q9BRZ2	
TRIM56	E3 ubiquitin-protein ligase TRIM56	Q9BRZ2	
TYK2	Non-receptor tyrosine-protein kinase TYK2	P29597	
TYK2	Non-receptor tyrosine-protein kinase TYK2	P29597	
UBAP2L	ubiquitin associated protein 2-like	Q14157	
UBE2N	Ubiquitin-conjugating enzyme E2 N	P61088	
VCAM1	Vascular cell adhesion protein 1	P19320	
VCAM1	Vascular cell adhesion protein 1	P19320	
VPS35	vacuolar protein sorting 35 homolog (S. cerevisiae)	Q96QK1	
WAS	Wiskott-Aldrich syndrome protein	P42768	
WAS	Wiskott-Aldrich syndrome protein	P42768	
XRCC5	X-ray repair complementing defective repair in Chinese hamster cells 5 (double-strand-break rejoining)	P13010	