

## Appendix Tables

**Appendix Table 2.1** List of unique peptide sequences of collagen isoforms identified by MS. One letter codes were used for amino acids. Upper case letters: amino acid did not show any modifications. Lower case letters: amino acid showed one of the considered modifications (see Chapter 2, Section 2.5.2.2)

Gene Name	Unique Peptide sequence
COL1A1	VLcDDVIcDETK
	STGGISVPGPMGSPGR
	GLpGppGAPGPQGFQGGPPGEPGEPGASGpmGpR
	GPpGPQGAR
	GFSGLDGAK
	GFSGLDGAKGDAGPAGPK
	GDAGPAGPkGEpGSpGENGApGQMGPR
	GEpGSpGENGApGQmGPR
	GRpGApGPAGAR
	GNDGATGAAGpPGPTGPAGPpGFpGAVGAK
	GNDGATGAAGPPGPTGPAGppGFpGAVGAKGEAGPQGPR
	GEAGPQGPR
	GSEGPQGVR
	GSEpQQVRGEpGPPGPAGAAGPAGNpGADGQpGAK
	GEpGpPGPAGAAGPAGNpGADGQpGAK
	GANGApGIAGApGFpGAR
	GPSGPQGGPPpGPK
	GPSGPQGGPPpGpKGNSGEpGAPGSK
	GDTGAKGEpGPVGVQGPpGPAGEEGK
	GEpGPVGVQGPpGPAGEEGK
	GEpGPVGVQGPpGPAGEEGKR
	GEpGPTGLpGPpGER
	GFpGADGVAGPK
	GSpGEAGRpGEAGLpGAK
	GLTGSpGSpGPDGK
	TGPPGpAGQDGRpGppGPPGAR
	GQAGVmGFpGPK
	GVpGPpGAVGPAGK
	GVpGpPGAVGPAGKDGEAGAQQGPPGPAGpAGER
	DGEAGAQQPpGPAGPAGER
	GVQGPPGpAGPR
	GANGApGNDGAKGDAGApGApGSQGApGLQGMpGER
	GDAGApGApGSQGApGLQGMpGER
	GAAGLpGPK
	GAAGLPgpkGDR
	GLTGPIGPpGPAGApGDK
	GLTGPIGPPGpAGApGDKGESGPSGPAGPTGAR
	GESGPSGPAGPTGAR
	GApGDRGEpGpPGPAGFAGPpGADGQpGAK
	GEpGpPGPAGFAGPpGADGQpGAK
	GEpGpPGPAGFAGPpGADGQpGAKGEpGDAGAK

	GEpGDAGAkGDAGpPGPAGPAGPPGpIGNVGApGAK
	GDAGpPGPAGPAGPPGpIGNVGApGAK
	GSAGPpGATGFpGAAGR
	VGppGPSGNAGPPGpGpAGK
	GETGPAGRpGEVgPpGPPGPAGEK
	GSpGADGPAGApGTpGPQGIAGQR
	GVVGLpGQR
	GFpGLpGPSGEpGK
	QGSPGASGERGPPGpMGPpGLAGpPGESGR
	GpPGPMGPPGLAGPpGESGR
	EGApGAEGSpGR
	GDRGETGPAGPpGApGApGApGPVGPAGK
	GETGPAGPpGApGApGApGPVGPAGK
	GPAGPQGPR
	GFSGLQGppGppGSpGEQGPSGASGPAGPR
	GPpGSAGAPGK
	GPpGSAGApGKDGLNGLpGpIGpPGPR
	DGLNGLPpIGppGPR
COL1A2	GVGLGPGPMGLMGR
	GppGAAGApGPQGFQGPAGEPGEpGQTGpAGAR
	GVVGPQGAR
	GFpGTpGLpGFk
	GEpGApGENGTpGQTGAR
	VGApGPAGAR
	GSDGSVGPVGPAGPIGSAGPpGFPGAPGPK
	GEIGAVGNAGPAGPAGPR
	GEVGLpGLSGPVGPpGNpGANGLTGAK
	GAAGLpGVAGApGLpGPR
	GlpGPVGAAGATGAR
	GLVGEpGPAGSK
	GESGNKGEpGSAGPQGPpGPSGEEGK
	GEpGSAGPQGPpGPSGEEGK
	RGPNGEAGSAGPpGPpGLR
	GPNGEAGSAGPpGPpGLR
	GLpGADGR
	AGVmGPpGSR
	GPNGDAGRpGEpGLMGR
	GLpGSpGNIGPAGK
	EGPVGLpGIDGRpGPIGPAGAR
	GEpGNIGFpGPK
	GEpGNIGFPGPkGpTGDpGK
	GApGPDGNNGAQQGPpGPQGVQGGK
	GEQGGPpGFQGLpGPSGPAGEVGkPGER
	GLHGEFGLpGPAGPR
	GERGpPGESGAAGPTGPIGSR
	GPpGESGAAGPTGPIGSR
	GPSGPpGPDGNK

	GPSGPpGpDGNkGEPGVVGA VGTAGPSGPSGLPGER
	GEpGVVGA VGTAGPSGPSGLpGER
	GApGAVGApGPAGATGDR
	GApGAVGAPGpAGATGDRGEAGAAGPAGPAGPR
	GEAGAAGpAGPAGPR
	GEVGPAGPNGFAGPAGAAGQpGAK
	GEVGPAGPNGFAGPAGAAGQpGAKGER
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	GENGVVGTGPVGAAGPAGPNGppGPAGSR
	GDGGPpGMTGFpGAAGR
	TGPpGpSGISGppGppGPAGK
	GDQGPVGR
	TGEVGA VGPpGFAGEk
	GpSGEAGTAGpPGTPGPQGLLGApGILGLpGSR
	GLpGVAGAVGEpGPLGIAGpPGAR
	GPPGAVGSpGVNGApGEAGR
	GPpGAVGSpGVNGApGEAGRDGNpGNDGpPGR
	DGNpGNDGPPGR
	GYpGNIGPVGAAGApGPHGPVGPAGK
	HGNRGETGPSGPVGPAGAVGPR
	GETGPSGPVGPAGAVGPR
	GPSGPQGIR
	GHNGLQGLpGIAGHHGDQGAPGSVGPAGpR
	GPAGPSGPAGK
	TGHpGTVGPAGIR
COL3A1	DGNpGSDGLpGR
	DGPPGpAGNTGApGSpGVSGPK
	DGpPGPAGNTGApGSpGVSGpKGDAGQpGEK
	DGSpGEpGANGLpGAAGER
	DGTSGHpGPIGPPGpR
	DGVpGGpGMR
	GAAGEpGRDGVpGGpGmR
	GAAGPpGPpGAAGTpGLQGMpGER
	GAPGEkGEGGPpGVAGpPGGSGPAGPPGPQGVk
	GApGPAGPR
	GApGPQGPR
	GDAGApGApGGKGDAGApGER
	GDAGAPGERGppGLAGApGLR
	GDAGQpGEkGSpGAQGPpGApGPLGIAGITGAR
	GDKGEpGGPGADGVPGK
	GDRGENGSpGApGApGHpGPPGPVGPAGK
	GDTGPPGpQGLQGLpGTGGpPGENGkPGEPGPk
	GEAGIpGVpGAK
	GEAGIpGVpGAKGEDGK
	GEDGKDGSpGEpGANGLpGAAGER
	GEGGApGLpGIAGPR
	GEGGPpGVAGpPGGSGPAGPPGPQGVk

	GEGGPpGVAGpPGGSGPAGPPGPQGvKGER
	GEmGPAGIpGApGLMGAR
	GENGLpGENGApGpMgPR
	GENGSpGApGApGHpGpPGPVGPAGK
	GEpGGPGADGVPGK
	GEpGPQGHAGAQQPPGppGINGSpGGK
	GERGEAGIPGVpGAK
	GESGPAGPAGApGPAGSR
	GESGPAGPAGAPGpAGSRGApGPQGPR
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	GETGPpGPAGFpGApGQNGEpGGKGER
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	GGAGppGpEGGKGAAGpPGPpGAAGTpGLQGmpGER
	GGLGSpGPK
	GGpGGpGPQGPpGK
	GLAGPpGMpGPR
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	GPAGPNGIpGEkGPAGER
	GPpGLAGApGLR
	GPpGPAGANGApGLR
	GPpGPQGLpGLAGTAGEpGR
	GpPGPQGLpGLAGTAGEpGRDGNpGSDGLpGR
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	GPTGPIGPPGpAGQpGDKGEGGApGLpGIAGPR
	GPVGPSGPpGK
	GPVGPSGPPGKDGTSGHpGpIGpPGPR
	GQpGVMGFpGPK
	GQpGVMGFpGpKNDGAPGk
	GRpGLpGAAGAR
	GSDGQpGpPGPpGTAGFpGSpGAK
	GSpGAQGPpGApGPLGIAGITGAR
	GSpGERGETGPPGpAGFpGApGQNGEpGGK
	GSpGGpGAAGFpGAR
	GSpGPQGVkGESGkKpGANGLSGER
	NETGPQGPpGPTGPGGDK
	SGDRGESGPAGPAGApGPAGSR
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	AHGQDLGTAGScLRK
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	GDpGTpGVPGK
	GEpGppGLpGSVGSpGVpGIGPpGAR
	GFpGppGPDGLpGSmGppGTpSVDHGFLVTR

	GFpGTSLpGPSGR
	GPpGGVGFpGSR
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	GTcNYYANAYSFWLATIERSEmFK
	GYpGTpGPR
	HSQTIDDPQcPSGTK
	ILYHGYSLLYVQGNER
	IVPLPGppGAEGLpGSpGFpGPQGDR
	KFSTMPFLFcNINNVcNFASR
	KPTPSTLk
	SAPFIEcHGR
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	GApGVTGPK
	GApGVTGPKGDVGAR
	GVSGFpGADGlpGHpGQGGPR
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	GLpGDAGR
	GLpGDAGREGFpGpPGFIGpR
	EGFpGppGFIGPR
	GLPGEVLGAQpGPR
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	GDAGFTGEQGHpGSpGFk
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	GDpGEANTLPGPVGVpGQkGDQGApGER
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	ATPFIEcNGGR
	GTcHYYANK
	YSFWLTTIPEQSFQGSPSADTLK
	YSFWLTTIPEQSFQGSPSADTLkAGLIR
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	ASPFLEcHGR
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	FTTmPFLFcNVNDVcNFASR
	GApGDpGLQGKPGk
	GApGFpGLpGR
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	GTLGFpGR
	HSQTTAIPScPEGTVPLYSGFSFLFVQGNQR
	LGApGTpGLpGPR
	NDYSYWLSTPALMPmNmAPITGR
	RGDSGSpATWTTR
	RGTLGFpGR
	SGFpGETGSpGlpGHQGE mGPLGQR
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	GDpGFpGGR
	GlpGmVGLpGppGR
	GPDGppGFpGQpGSHGR
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	AGPVGppGLGFpGppGER
	GHpGVpGHpGVR
	GRpGTpGTAEIpGPpGFR
	GLSGVpGik
	GLSGVpGIKGpR
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	GDpGcpGAEGPAGlpGFLGLKGpK

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	YGppGFHR
	GFIGFpGLpGDQGEpGSpGppGFSGIDGAR
	GSpGRpGppGSSGppGcpGDHGMpGLR
	GQpGEmGDpGPR
	GLQGDpGlpGppGIk
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	KGppGppGSSGppGPAGATGR
	GppGppGSSGppGPAGATGR
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	GApGppGLpGSVDLLR
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	GPTGLpGPR
	GEpGPpADVDDcPR
	GEpGpPADVDDcPRlpGLpGApGmR
	IPGLpGApGmR
	GPEGAmGLpGmR
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	AAPFLEcQGR
	QGTcHFFANK
	YSFWLTTVK
	ADLQFSSApAPDTLK
	ADLQFSSApAPDTLKESQAQR
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	DGENGQpGlpGLpGDpGYpGEpGR
	FSTMPFMFcNINNVcNFASR
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	GEPGIPGIGLPGPPGpK
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	GFpGLEGHpGLpGFpGPEGPpGpR
	GFpGppGppGR
	GLDGppGPDGLQGppGppGTSSVAHGFLITR
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	GSpGlpGApGPIGppGSpGLpGK
	HSQTTDAPQcPQGTLQVYEGFSLLYVQGNK
	NDYSYWLSTPEPMPMSMQPLk
	NGLpGFDGAGGR
	SAPFIEcHGR

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	VGVSVDVGLpGApGFpGVAGmR
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	VGYTLVK
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	SYWLSTTAPIPmmPVSQTQIPQYISR
	cSVcEAPSQAIHVHSQDITIPQcPLGWR
	ATPFIEcSGAR
	YSFWLTTVEER
	QQFGELPVSETLK
COL5A1	VTkDAQLSAPTK
	GPpGRpGLpGADGLpGPPGTmLMLPFR
	GDPGpSGppGppGDDGERGDDGEVGPR
	GLpGEPGpR
	LGVpGLpGYpGR
	GPNGPQGPTGFpGPk
	TGppGppGVVGPQGPTGETGPMGER
	GHpGPpGPpGEQGLpGLAGK
	TGPIGPQGApGKpGPDGLR
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GLTGNpGVQGPEGK	
LGPLGApGEDGRPGppGSIGIR	
DGEVGPSGPVGpPGLAGER	
GLVGpPGSR	
GTQGppGATGFpGSAGR	
VGPPpGpAGApGPAGPLGEPGk	
GPAGPpGGpGDkGDpGEDGQpGpDGPPGPAGTTGQR	
GMpGLPGpAGTPGk	
GDRGDPGpAGLpGSQGApGTpGpVGAPGDAGQR	
EGNPGPLGPIGppGVR	
COL6A1	LKPYGALVDK
	RFIDNLR
	NLVWNAGALHYSDEVEIIQGLTR
	GTYTDCaIK
	KGLEQLLVGGSHLK
	GLEQLLVGGSHLK



	YLIVVTDGHPLEGYK
	YLIVVTDGHPLEGYKEPcGGLEDAVNEAK
	EPcGGLEDAVNEAK
	VFSVAITPDHLEPR
	LSIIATDHTYR
	DAEEAISQTIDTIVDmIK
	NNVEQVccSFecQPAR
	GPpGLRGDpGFEGER
	GDPGFEGER
	GDpGEAGPQGQGR
	GDEGpPGSEGAR
	GApGPAGPpGDpGLmGER
	GEDGpAGNGTEGFPGFPGYPGNRGAPGINGTK
	GYpGLKGDEGEAGDpGDDNNDIAPR
	GDEGEAGDpGDDNNDIAPR
	GPEGPQGpGHQGppGPDEcEILDIIImK
	LSRDELVK
	FEPGQSYAGVVQYSHSQMQEHVSLR
	EAIKSLQWMAGGTFTGEALQYTR
	SLQWMAGGTFTGEALQYTR
	DQLLPPSPNNR
	IALVITDGR
	IALVITDGRSDTQR
	DTTPLNVLcSPGIQVVSvgIK
	ENYAELLEDAFLK
	VAVVQYSGTGQQRPER
	RLLLFSDGNSQGATPAAIEK
	LLLFSDGNSQGATPAAIEK
	QVNEPHIR
	TAEYDVAYGESHLFR
	VPSYQALLR
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	DIASTPHELYR
	DVTVTAIGIGDMFHEK
	DYDSLAQPGFFDR
	FVEQVAR
	GEKGEpADpGpPGEPGPR
	GPDGYpGEAGSpGER
	GPQGALGEpGK
	GTVHFAVVITDGHVTGSPcGGIK
	GVpGPEGEpGPpGDpGLTEcDVMTYVR
	HEAYGEcYK
	HESENLYSIAcDKPQQVR

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	LFAVAPNQNLK
	LGEQNFHK
	NDYATMLPDSTEIDQDTINR
	NFVINVVNR
	NLEWIAGGTWTPSALK
	NLQGISSFR
	QGDpGIEGPIGFpGpK
	QNVVPTVLALGSDVDmDVLTTLSLGDR
	RDDDPLNAR
	RFVEQVAR
	VFAVVITDGR
	VGVVQYSHEGTFEAIQLDDER
	VGVVQYSHEGTFEAIQLDDERIDSLSSFK
	VScLEIPGPSGPK
	YGGLHFSdqVEVFSPPGSDR
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	AccGVPcK
	AcNLDVILGFDGSR
	AELQHIATDDNLVFTVPEFR
	AGILTFcVGASQANK
	ALEFVAR
	ALGSAIEYTIENVFESAPNPR
	ALILVGLER
	ALNLGYALDYAQR
	AQVLGAVK
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	ELPNIEER
	ELPSLEQK
	EVITAVR
	EVYTFASEPNDVFFK
	FDEHQSKPEILNLVK
	GADQAELEEIAFDSSLVFIPAEFR
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	GDpGNPGQDSQER
	GDRGPIGSIGPK
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GPIGSIGPK
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GYpGDEGGPGER
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IAVAQYSDDVKVESR
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NNLFTSSAGYR
NPSVVVK

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QQSLETAMSFVAR
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RDVVFLIDGSQSAGPEFQYVR
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RQIIDAINK
SDDEVDDPAVELK
SDILGHLR
SGDDVRNPSVVVK
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SLDEISQPAQELKR
SQAPVLDAIR
SQAPVLDAIRR
SQHPYVLTEDTLK
SSDRVDGPASNLK
SSGIVSLGVGDR
SSGIVSLGVGDRNIDR
SSIMAFAINK
STELNEEPLMR
SVEDAQDVSLALTQR
SVHNGAPAPVSGEKDVVFLLDGSEGVR
TELQTITNDPR
TmFSLDTYSTK
TNFPYVR
TRPEFYLNsyMnK
VAVFFSNTPTR
VAVIQFSDDPK
VAVIQFSDDPKVEFLLNAHSSK
VAVVQYSR
VAVVTYNNEVTTEIR
VDAILNR
VDGPASNLK
VEEGVPQVLVLISAGPSSDEIR
VEFLLNAHSSK
VEFLLNAHSSKDEVQNAVQR
VEFSLTDYGSK
VFAVGVR

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	VGVVQFSDEPR
	VGVVQFSNDVFPEFYLK
	VNHFVPEAGSR
	VPQIAFVITGGK
	VPQIAFVITGGKSVEDAQDVSLALTQR
	VSVVANTPSGPVEAFDFDEYQPEMLEK
	VVESLDVGQDR
	VVIHFTDGADGDLADLHR
	YGVVALK
	YIAYLVR
	YPPPAVESDAADIVFLIDSSEGVRPDGFAHIR
COL7A1	AQGFLHWQPEGGQEQR
	ASSYILSWRPLR
	DLEPGTDYEVTVSTLFGR
	DLVLSEPSSQSLR
	EAQASGLNVVMLGMAGADPEQLR
	EAQASGLNVVMLGMAGADPEQLRR
	EIVETWDESSGSFLPVPER
	GLADVFLPHATQDNAHR
	GLLGPQGQpGAAGIpGDpGSpGKDGVPpGIR
	GPEASVTQTPVcPR
	GppGPSGLAGEpGKpGIpGLpGR
	GQVGpPGDpGLpGR
	GREEGPAAVIVAR
	LFAVGIK
	LLETAGIK
	LSVLGPAGEGPSAEVTAR
	QEVNVPAGETSVR
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	VAWGPVPGASGFR
	VLSGGPTQQQELGPGQGSVLLR
	VQWTAASGPVTGYK
	VQYTPLTGLGQPLPSEK
	VTGLEPGVSYIFSLTPVLDGVR
COL8A1	GKPGPQGYPGVGKpGmpGMpGkpGAMGmpGAK
	GLpGPQGLR
	GFGmpGApGVk
	GMGGVpGALGPR
	GLpGpIGPK
	GVpGLpGVpGLLpGpK
	GGNVWVALFK
	NNEPVMYTYDEYK
	GFLDQASGSVALLLRPGDR
COL11A1	AGPTGDPSGQAGEK
	GHpGPpGppGEQGLpGAAGK

	GPpGRpGLpGADGLpGPPGTmLMLPFR
	LGVpGLpGYpGR
	TGppGPGGVVGPQGPTGETGPIGER
COL12A1	ITVDPTTDGPTK
	VGVVQYSSDTR
	TEFNLNQYYQR
	NTFTESAGAR
	NVGVEVFSLGIK
	LNWNPSPSPVTGYK
	QHALSEVGPQTTLSVR
	AFLEVLVK
	VQISLVQYSR
	VEDIIEAINTFPYR
	NSDVEIFAVGVK
	SELEAIASPPAETHVFTVEDFDAFQR
	VTDETTDSFK
	ITWTQAPGR
	IYRPVAGGESR
	GDTTNTVLQGLK
	DITDTSIGAYWTSAPGMVR
	SLYDDVDTGEK
	VDEETENTMR
	LQPQTTYDITVLPIYK
	VTWEPAPGEVK
	LGELVVGPDNTVVLEELR
	IVEVFDIGPK
	VQIALAQYSGDPR
	SLLQAVANLPYK
	GGNTLTGMALNFIR
	KIGVLITDGK
	LKDEGVELFAIGIK
	MIATDPDDTHAYNVADFESLSR
	IVDDLTINLcNSVK
	GPGDLEAPSNLVISER
	VSWTPPSDSVDR
	DVTHSTMNVFWEPVPGK
	ITEVTSEGFR
	GTWDHGASDVSLYR
	ITYQPSTGEGNEQTTIGGR
	LKPDTPYTITVSSLYPDGEGGR
	VYDPSTSTLNVR
	NLQPDTSYTVTVVPVYTEGDGGR
	WDPAPGPVLQYR
	VVYSPVDGTRPSESIVPGNTR
	VFGETTNSLSVAWDHADGPVQQYR
	IISPTVGDPIDEYTTVPGR
	NNVILQPLQPDTPYK

	VSWDPSPSPVLGYK
	ALALGALQNIR
	VLTWESGMR
	VLVVVTDGR
	NFASVQGVSLSEGSFPSYSAYR
	NAFVNQPTADLHPNGLPPSYTIILLFR
	LLPETPSDFAIWQITDR
	DYKPQVGVIADPSSK
	TLSFFNK
	GEVQTVTFDTEEVK
	IYIDcYEII EK
	SAAFQIQSFDIVcSPVWTSR
	GISGAIGpPGpR
	GDIASQNMMR
	QVcEQLISGQMNR
	GERGTGSSGPR
COL14A1	ASAHAITGPPTTELITSEVTAR
	DEVIEAVR
	DFSSVEGVSMEPGTFNVFPcYQLHK
	DGIDLAGFK
	DTLFTAESGTR
	ESGVELFAIGVK
	GDLQSQAmVR
	GGNTLTGLALNYIFENSFKPEAGSR
	GPGGNSAPFQLQMFDIVcSTSWANTDK
	GppGPAGPSGESRPGSpGppGSpGpR
	HFLENLVTAFDVGSEK
	HVFFVDDFDAFK
	HVFFVDDFDAFKK
	IFASQASGFSDALTGMVK
	IGILITDGK
	IGLAQYSGDPR
	IGTDGTQVAMVQFTDDPR
	ILPDTPQEPPALWEILNK
	ITWDPPSSPVK
	KIEDELITFVcETASATcPVVHK
	LHIVVSETLVK
	LLVTPTSGGK
	LMWIPVYGGK
	LQEIEGPSVSIMEK
	NLVVGDETTSSLR
	QVcEQLIQSHMAR
	TKETLLDAIK
	TLFLGVTNLQAK
	TNQLNLQNTATK
	VIVVITDGR
	VKWDVAVPGASGYLILYAPLTEGLAGDEK

	VKWDISDSQVQQFR
	VSEEWYNR
	VTVTPIYTDGEGVSVSAPGK
	VTWHPLSADEGLHK
	VVIESLQDR
	YLHPEGLPSDYTISFLFR
	YTAILNQIpSHSSSIR
COL15A1	GGVLFAITDAFQK
	VIYLGLR
	FAMIVQGEEVTLNcEEHSR
	GmDGASIVGPPGPR
	NLVTAFSNMDDMLQK
	ADFQcFK
	AAGLLSTYR
	AFLSSHLQDLSTIVR
	YSLPIVNLK
	DImTDPSWPQK
	LVDNYcEAWR
	TADTAVTGLASPLSTGK
COL16A1	AGMPGGPGk
	DGApGRpGApGSpGLpGQIGR
	DSNVTLApSGpK
	GLAGLpGQpGpPGHPGppGEpGTDGAAGK
	GSpGPPGPIGppGFpGAVGSpGLpGLQGER
COL18A1	AAVPIVNLK
	ADDILASPPR
	AVGLAGTFR
	DELLFPSWEALFSGSEGPLKPGAR
	DFQPVLHLVALNSPLSGGMR
	DGEpGDpGEDGKpGDTGPQGFPpGpGDVpGpK
	EETGAALKPR
	EGPpGFpGLpGppGpPGR
	ELLREETGAALKPR
	GADFQcFQQAR
	GEVGADGVpGFpGLpGR
	GFpGppGppGVpGLpGEpGR
	GLELEPGAGLFVAQAGGADPDKFQGVIKELK
	GppGPQGPPGppGpSFR
	GQpGpPGpQGppGIGYEGR
	GTDNEVAALQPPVQLHDSNPYPR
	HPTWPQK
	IFSFDGK
	IFSFDGKDVLK
	LPAPpPVTTPLAGGSSTEDSR
	LQDLYSIVR
	LSGVQDGHQDISLLYTEPGAGQTHTAASFR
	LTESYcETWR



	QGppGppGppGppSFPgpHR
	QTISVpGppGppGppGppGTmGASSGVR
	RLTESYcETWR
	SVWHGSDPNGR
	TEAPSATGQASSLLGGR
	YHFPSLFFR

**Appendix Table 3.1.** List of ECM proteins identified in the human tubulointerstitial (TI) matrix.

×: Unique to TI ECM; √: Also detected in glomerular (G) ECM.

Gene Name	Accession Number	HMDB Category	Description	Compared with glomerular ECM
COL12A1	D6RGG3_HUMAN	Collagens	Collagen alpha-1(XII) chain	√
COL14A1	COEA1_HUMAN	Collagens	Collagen alpha-1(XIV) chain	√
COL15A1	A0A087X0K0_HUMAN (+1)	Collagens	Collagen alpha-1(XV) chain	√
COL18A1	COIA1_HUMAN	Collagens	Collagen alpha-1(XVIII) chain	√
COL1A1	CO1A1_HUMAN	Collagens	Collagen alpha-1(I) chain	√
COL1A2	A0A087WTA8_HUMAN (+1)	Collagens	Collagen alpha-2(I) chain	√
COL3A1	CO3A1_HUMAN	Collagens	Collagen alpha-1(III) chain	√
COL4A1	CO4A1_HUMAN	Collagens	Collagen alpha-1(IV) chain	√
COL4A2	CO4A2_HUMAN	Collagens	Collagen alpha-2(IV) chain	√
COL4A3	CO4A3_HUMAN	Collagens	Collagen alpha-3(IV) chain	√
COL4A4	CO4A4_HUMAN	Collagens	Collagen alpha-4(IV) chain	√
COL4A5	CO4A5_HUMAN	Collagens	Collagen alpha-5(IV) chain	√
COL4A6	F5H3Q5_HUMAN	Collagens	Collagen alpha-6(IV) chain	√
COL5A1	CO5A1_HUMAN	Collagens	Collagen alpha-1(V) chain	√
COL5A2	CO5A2_HUMAN	Collagens	Collagen alpha-2(V) chain	√
COL6A1	A0A087X0S5_HUMAN (+1)	Collagens	Collagen alpha-1(VI) chain	√
COL6A2	CO6A2_HUMAN	Collagens	Collagen alpha-2(VI) chain	√
COL6A3	CO6A3_HUMAN	Collagens	Collagen alpha-3(VI) chain	√
COL8A1	CO8A1_HUMAN	Collagens	Collagen alpha-1(VIII) chain	×
A2M	A2MG_HUMAN	ECM-associated Proteins	Alpha-2-macroglobulin	√
ADAM10	ADA10_HUMAN	ECM-associated Proteins	Disintegrin and metalloproteinase domain-containing protein 10	√
AGT	ANGT_HUMAN	ECM-associated Proteins	Angiotensinogen	√
AHSG	C9JV77_HUMAN (+1)	ECM-associated Proteins	Alpha-2-HS-glycoprotein	×
AMBP	AMBP_HUMAN	ECM-associated Proteins	Protein AMBP	√
ANXA1	ANXA1_HUMAN	ECM-associated Proteins	Annexin A1	√

ANXA11	ANX11_HUMAN	ECM-associated Proteins	Annexin A11	√
ANXA13	ANX13_HUMAN	ECM-associated Proteins	Annexin A13	×
ANXA2	ANXA2_HUMAN	ECM-associated Proteins	Annexin A2	√
ANXA4	ANXA4_HUMAN	ECM-associated Proteins	Annexin A4	√
ANXA5	ANXA5_HUMAN	ECM-associated Proteins	Annexin A5	√
ANXA6	ANXA6_HUMAN	ECM-associated Proteins	Annexin A6	√
ANXA7	ANXA7_HUMAN	ECM-associated Proteins	Annexin A7	√
APCS	SAMP_HUMAN	ECM-associated Proteins	Serum amyloid P-component	√
APOE	APOE_HUMAN	ECM-associated Proteins	Apolipoprotein E	√
APOH	APOH_HUMAN	ECM-associated Proteins	Beta-2-glycoprotein 1	√
CASP14	CASPE_HUMAN	ECM-associated Proteins	Caspase 14	√
CCT2	TCPB_HUMAN	ECM-associated Proteins	T-complex protein 1 subunit beta	√
CCT6A	TCPZ_HUMAN	ECM-associated Proteins	T-complex protein 1 subunit zeta	√
CD109	CD109_HUMAN	ECM-associated Proteins	CD109 antigen	√
CLU	CLUS_HUMAN	ECM-associated Proteins	Clusterin	√
CSPG4	CSPG4_HUMAN	ECM-associated Proteins	Chondroitin sulfate proteoglycan 4	√
CTSA	X6R5C5_HUMAN (+1)	ECM-associated Proteins	Carboxypeptidase	√
CTSB	CATB_HUMAN	ECM-associated Proteins	Cathepsin B	√
CTSC	CATC_HUMAN	ECM-associated Proteins	Dipeptidyl peptidase 1	×
CTSD	CATD_HUMAN	ECM-associated Proteins	Cathepsin D	√
CTSG	CATG_HUMAN	ECM-associated Proteins	Cathepsin G	√
CTSH	A0A087X0D5_HUMAN (+1)	ECM-associated Proteins	Pro-cathepsin H	√
CTSZ	CATZ_HUMAN	ECM-associated Proteins	Cathepsin Z	√
DCD	DCD_HUMAN	ECM-associated Proteins	Dermcidin	√
DEFA1	DEF1_HUMAN (+1)	ECM-associated Proteins	Neutrophil defensin 1	√
DSG1	DSG1_HUMAN	ECM-associated Proteins	Desmoglein 1	√
DSP	DESP_HUMAN	ECM-associated Proteins	Desmoplakin	×
EMCN	MUCEN_HUMAN	ECM-associated Proteins	Endomucin	√
F9	FA9_HUMAN	ECM-associated Proteins	Coagulation factor IX	√
FLG2	FILA2_HUMAN	ECM-associated Proteins	Filaggrin-2	√

FREM1	FREM1_HUMAN	ECM-associated Proteins	Fraser Extracellular Matrix Complex Subunit 1 - related extracellular matrix protein 1	×
FREM2	FREM2_HUMAN	ECM-associated Proteins	Fraser Extracellular Matrix Complex Subunit 1 - related extracellular matrix protein 2	√
GANAB	GANAB_HUMAN	ECM-associated Proteins	Neutral alpha-glucosidase AB	×
HPX	HEMO_HUMAN	ECM-associated Proteins	Hemopexin	√
HRG	HRG_HUMAN	ECM-associated Proteins	Histidine-rich glycoprotein	√
HRNR	HORN_HUMAN	ECM-associated Proteins	Hornerin	√
HSP90B1	ENPL_HUMAN	ECM-associated Proteins	Endoplasmin	×
INHBE	INHBE_HUMAN	ECM-associated Proteins	Inhibin beta E chain	√
ITIH4	B7ZKJ8_HUMAN	ECM-associated Proteins	Inter-alpha-trypsin inhibitor heavy chain H4	√
ITIH5	ITIH5_HUMAN	ECM-associated Proteins	Inter-alpha-trypsin inhibitor heavy chain H5	√
KNG1	KNG1_HUMAN	ECM-associated Proteins	Kininogen-1	√
LGALS1	LEG1_HUMAN	ECM-associated Proteins	Galectin-1	√
LGALS2	LEG2_HUMAN	ECM-associated Proteins	Galectin-2	√
LGALS3	LEG3_HUMAN	ECM-associated Proteins	Galectin-3	√
LGALS3BP	LG3BP_HUMAN	ECM-associated Proteins	Galectin-3-binding protein	√
LGALS8	LEG8_HUMAN	ECM-associated Proteins	Galectin-8	√
LMAN1	LMAN1_HUMAN	ECM-associated Proteins	Protein Endoplasmic Reticulum-Golgi Intermediate Compartment Protein 53	×
MUC1	A0A087WVJ0_HUMAN (+5)	ECM-associated Proteins	Mucin-1 (Fragment)	√
P4HA1	P4HA1_HUMAN	ECM-associated Proteins	Prolyl 4-hydroxylase subunit alpha-1	√
PLEC	PLEC_HUMAN	ECM-associated Proteins	Plectin	×
PLG	PLMN_HUMAN	ECM-associated Proteins	Plasminogen	√
PLOD1	PLOD1_HUMAN	ECM-associated Proteins	Procollagen-lysine,2-oxoglutarate 5-dioxygenase 1	√
PLOD3	PLOD3_HUMAN	ECM-associated Proteins	Procollagen-lysine,2-oxoglutarate 5-dioxygenase 3	√
PLXNB2	PLXB2_HUMAN	ECM-associated Proteins	Plexin-B2	√
PRDX1	PRDX1_HUMAN	ECM-associated Proteins	Peroxiredoxin-1	√
S100A11	S10AB_HUMAN	ECM-associated Proteins	Protein S100 calcium-binding protein -A11	√

S100A14	S10AE_HUMAN	ECM-associated Proteins	Protein S100 calcium-binding protein -A14	√
S100A8	S10A8_HUMAN	ECM-associated Proteins	Protein S100 calcium-binding protein -A8	√
S100A9	S10A9_HUMAN	ECM-associated Proteins	Protein S100 calcium-binding protein -A9	√
SERPINA5	IPSP_HUMAN	ECM-associated Proteins	Plasma serine protease inhibitor	√
SERPINB12	SPB12_HUMAN	ECM-associated Proteins	Serpin B12	√
SERPINC1	ANT3_HUMAN	ECM-associated Proteins	Anti-thrombin-III	√
SERPIND1	HEP2_HUMAN	ECM-associated Proteins	Heparin cofactor 2	×
SERPINF1	PEDF_HUMAN	ECM-associated Proteins	Pigment epithelium-derived factor	√
SERPING1	IC1_HUMAN	ECM-associated Proteins	Plasma protease C1 inhibitor	√
SERPINH1	SERPH_HUMAN	ECM-associated Proteins	Serpin H1	√
SOD3	SODE_HUMAN	ECM-associated Proteins	Extracellular superoxide dismutase [Cu-Zn]	√
TGM1	TGM1_HUMAN	ECM-associated Proteins	Protein-glutamine gamma-glutamyltransferase K	√
TGM2	TGM2_HUMAN	ECM-associated Proteins	Protein-glutamine gamma-glutamyltransferase 2	√
TGM3	TGM3_HUMAN	ECM-associated Proteins	Protein-glutamine gamma-glutamyltransferase E	√
TIMP3	TIMP3_HUMAN	ECM-associated Proteins	Metalloproteinase inhibitor 3	√
AGRN	AGRIN_HUMAN	Glycoproteins	Agrin	√
CRELD1	CREL1_HUMAN	Glycoproteins	Cysteine-rich with epidermal growth factor-like domain protein 1	√
DPT	DERM_HUMAN	Glycoproteins	Dermatopontin	√
ECM1	ECM1_HUMAN	Glycoproteins	Extracellular matrix protein 1	√
EFEMP1	FBLN3_HUMAN	Glycoproteins	Epidermal growth factor-containing fibulin-like extracellular matrix protein 1	√
ELN	F8WAH6_HUMAN (+1)	Glycoproteins	Elastin	×
EMILIN1	A0A0C4DFX3_HUMAN (+1)	Glycoproteins	Emilin-1	√
FBLN1	FBLN1_HUMAN	Glycoproteins	Fibulin-1	√
FBN1	FBN1_HUMAN	Glycoproteins	Fibrillin-1	√
FGA	FIBA_HUMAN	Glycoproteins	Fibrinogen alpha chain	√
FGB	FIBB_HUMAN	Glycoproteins	Fibrinogen beta chain	√

FGG	FIBG_HUMAN	Glycoproteins	Fibrinogen gamma chain	√
FN1	FINC_HUMAN	Glycoproteins	Fibronectin	√
FRAS1	FRAS1_HUMAN	Glycoproteins	Fraser Extracellular Matrix Complex Subunit 1	√
IGFBP7	IBP7_HUMAN	Glycoproteins	Insulin-like growth factor-binding protein 7	√
KCP	A0A087WVT8_HUMAN	Glycoproteins	Kielin/chordin-like protein	×
LAMA1	LAMA1_HUMAN	Glycoproteins	Laminin subunit alpha-1	×
LAMA4	A0A0A0MQS9_HUMAN (+1)	Glycoproteins	Laminin subunit alpha-4	√
LAMA5	LAMA5_HUMAN	Glycoproteins	Laminin subunit alpha-5	√
LAMB1	G3XAI2_HUMAN	Glycoproteins	Laminin subunit beta-1	√
LAMB2	LAMB2_HUMAN	Glycoproteins	Laminin subunit beta-2	√
LAMC1	LAMC1_HUMAN	Glycoproteins	Laminin subunit gamma-1	√
MATN2	MATN2_HUMAN	Glycoproteins	Matrilin-2	√
MFAP4	K7ES70_HUMAN (+1)	Glycoproteins	Microfibril-associated glycoprotein 4	√
MFGE8	MFGM_HUMAN	Glycoproteins	Lactadherin	√
MGP	MGP_HUMAN	Glycoproteins	Matrix Gla protein	√
NID1	NID1_HUMAN	Glycoproteins	Nidogen-1	√
NID2	A0A0A0MTL9_HUMAN	Glycoproteins	Nidogen-2	√
NPNT	D6RH31_HUMAN	Glycoproteins	Nephronectin (Fragment)	√
POSTN	B1ALD9_HUMAN	Glycoproteins	Periostin	√
SBSPON	SBSPO_HUMAN	Glycoproteins	Somatomedin-B and thrombospondin type-1 domain-containing protein	√
TGFBI	BGH3_HUMAN	Glycoproteins	Transforming growth factor-beta-induced protein ig-h3	√
TINAG	TINAG_HUMAN	Glycoproteins	Tubulointerstitial nephritis antigen	√
TINAGL1	TINAL_HUMAN	Glycoproteins	Tubulointerstitial nephritis antigen-like	√
TNC	TENA_HUMAN	Glycoproteins	Tenascin	√
VTN	VTNC_HUMAN	Glycoproteins	Vitronectin	√
VWA1	VWA1_HUMAN	Glycoproteins	von Willebrand factor A domain-containing protein 1	√

VWF	VWF_HUMAN	Glycoproteins	von Willebrand factor	√
ASPN	ASPN_HUMAN	Proteoglycans	Asporin	√
BGN	PGS1_HUMAN	Proteoglycans	Biglycan	√
DCN	PGS2_HUMAN	Proteoglycans	Decorin	√
HSPG2	PGBM_HUMAN	Proteoglycans	Basement membrane-specific heparan sulfate proteoglycan core protein	√
LUM	LUM_HUMAN	Proteoglycans	Lumican	√
PRELP	PRELP_HUMAN	Proteoglycans	Prolargin	√

**Appendix Table 3.2** List of ECM Proteins identified in the human glomerular matrix.

×: Unique to G ECM; √: Also detected in TI ECM.

Gene Name	Accession Number	Category	Description	Compared with TI ECM
COL12A1	D6RGG3_HUMAN	Collagens	Collagen alpha-1(XII) chain	√
COL14A1	COEA1_HUMAN	Collagens	Collagen alpha-1(XIV) chain	√
COL15A1	A0A087X0K0_HUMAN (+1)	Collagens	Collagen alpha-1(XV) chain	√
COL16A1	COGA1_HUMAN	Collagens	Collagen alpha-1(XVI) chain	×
COL18A1	COIA1_HUMAN	Collagens	Collagen alpha-1(XVIII) chain	√
COL1A1	CO1A1_HUMAN	Collagens	Collagen alpha-1(I) chain	√
COL1A2	A0A087WTA8_HUMAN (+1)	Collagens	Collagen alpha-2(I) chain	√
COL3A1	CO3A1_HUMAN	Collagens	Collagen alpha-1(III) chain	√
COL4A1	CO4A1_HUMAN	Collagens	Collagen alpha-1(IV) chain	√
COL4A2	CO4A2_HUMAN	Collagens	Collagen alpha-2(IV) chain	√
COL4A3	CO4A3_HUMAN	Collagens	Collagen alpha-3(IV) chain	√
COL4A4	CO4A4_HUMAN	Collagens	Collagen alpha-4(IV) chain	√
COL4A5	CO4A5_HUMAN	Collagens	Collagen alpha-5(IV) chain	√
COL4A6	F5H3Q5_HUMAN	Collagens	Collagen alpha-6(IV) chain	√
COL5A1	CO5A1_HUMAN	Collagens	Collagen alpha-1(V) chain	√
COL5A2	CO5A2_HUMAN	Collagens	Collagen alpha-2(V) chain	√
COL6A1	A0A087X0S5_HUMAN (+1)	Collagens	Collagen alpha-1(VI) chain	√
COL6A2	CO6A2_HUMAN	Collagens	Collagen alpha-2(VI) chain	√
COL6A3	CO6A3_HUMAN	Collagens	Collagen alpha-3(VI) chain	√
COL7A1	CO7A1_HUMAN	Collagens	Collagen alpha-1(VII) chain	×
A2M	A2MG_HUMAN	ECM-associated proteins	Alpha-2-macroglobulin	√
ADAM10	ADA10_HUMAN	ECM-associated proteins	Disintegrin and metalloproteinase domain-containing protein 10	√
ADAM9	ADAM9_HUMAN	ECM-associated proteins	Disintegrin and metalloproteinase domain-containing protein 9	×



ADAMTSL5	X6R4H8_HUMAN (+1)	ECM-associated proteins	ADAMTS (A disintegrin and metalloproteinase with thrombospondin motifs)-like protein 5	×
AGT	ANGT_HUMAN	ECM-associated proteins	Angiotensinogen	√
AMBP	AMBP_HUMAN	ECM-associated proteins	Protein AMBP	√
ANGPTL6	ANGL6_HUMAN	ECM-associated proteins	Angiopoietin-related protein 6	×
ANXA1	ANXA1_HUMAN	ECM-associated proteins	Annexin A1	√
ANXA11	ANX11_HUMAN	ECM-associated proteins	Annexin A11	√
ANXA2	ANXA2_HUMAN	ECM-associated proteins	Annexin A2	√
ANXA4	ANXA4_HUMAN	ECM-associated proteins	Annexin A4	√
ANXA5	ANXA5_HUMAN	ECM-associated proteins	Annexin A5	√
ANXA6	ANXA6_HUMAN	ECM-associated proteins	Annexin A6	√
ANXA7	ANXA7_HUMAN	ECM-associated proteins	Annexin A7	√
APCS	SAMP_HUMAN	ECM-associated proteins	Serum amyloid P-component	√
APOE	APOE_HUMAN	ECM-associated proteins	Apolipoprotein E	√
APOH	APOH_HUMAN	ECM-associated proteins	Beta-2-glycoprotein 1	√
CASP14	CASPE_HUMAN	ECM-associated proteins	Caspase-14	√
CCT2	TCPB_HUMAN	ECM-associated proteins	T-complex protein 1 subunit beta	√
CCT6A	TCPZ_HUMAN	ECM-associated proteins	T-complex protein 1 subunit zeta	√
CD109	CD109_HUMAN	ECM-associated proteins	CD109 antigen	√
CLU	CLUS_HUMAN	ECM-associated proteins	Clusterin	√
CSPG4	CSPG4_HUMAN	ECM-associated proteins	Chondroitin sulfate proteoglycan 4	√
CTSA	X6R5C5_HUMAN (+1)	ECM-associated proteins	Carboxypeptidase	√
CTSB	CATB_HUMAN	ECM-associated proteins	Cathepsin B	√
CTSD	CATD_HUMAN	ECM-associated proteins	Cathepsin D	√
CTSG	CATG_HUMAN	ECM-associated proteins	Cathepsin G	√
CTSH	A0A087X0D5_HUMAN (+1)	ECM-associated proteins	Pro-cathepsin H	√
CTSS	CATS_HUMAN	ECM-associated proteins	Cathepsin S	×
CTSZ	CATZ_HUMAN	ECM-associated proteins	Cathepsin Z	√
CXCL14	CXL14_HUMAN	ECM-associated proteins	C-X-C motif chemokine 14	×

DCD	DCD_HUMAN	ECM-associated proteins	Dermcidin	√
DEFA1	DEF1_HUMAN (+1)	ECM-associated proteins	Neutrophil defensin 1	√
DSG1	DSG1_HUMAN	ECM-associated proteins	Desmoglein-1	√
ELANE	ELNE_HUMAN	ECM-associated proteins	Neutrophil elastase	×
EMCN	MUCEN_HUMAN	ECM-associated proteins	Endomucin	√
F3	TF_HUMAN	ECM-associated proteins	Tissue factor	×
F9	FA9_HUMAN	ECM-associated proteins	Coagulation factor IX	√
FGF2	A0A087WUF6_HUMAN (+1)	ECM-associated proteins	Fibroblast growth factor	×
FLG2	FILA2_HUMAN	ECM-associated proteins	Filaggrin-2	√
FREM2	FREM2_HUMAN	ECM-associated proteins	Fraser Extracellular Matrix Complex Subunit 1 - related extracellular matrix protein 2	√
HPX	HEMO_HUMAN	ECM-associated proteins	Hemopexin	√
HRG	HRG_HUMAN	ECM-associated proteins	Histidine-rich glycoprotein	√
HRNR	HORN_HUMAN	ECM-associated proteins	Hornerin	√
HTRA1	HTRA1_HUMAN	ECM-associated proteins	Serine protease High-temperature requirement A serine peptidase 1	×
INHBE	INHBE_HUMAN	ECM-associated proteins	Inhibin beta E chain	√
ITIH1	ITIH1_HUMAN	ECM-associated proteins	Inter-alpha-trypsin inhibitor heavy chain H1	×
ITIH4	B7ZKJ8_HUMAN	ECM-associated proteins	Inter-alpha-trypsin inhibitor heavy chain H4 protein	√
ITIH5	ITIH5_HUMAN	ECM-associated proteins	Inter-alpha-trypsin inhibitor heavy chain H5	√
KNG1	KNG1_HUMAN	ECM-associated proteins	Kininogen-1	√
LGALS1	LEG1_HUMAN	ECM-associated proteins	Galectin-1	√
LGALS2	LEG2_HUMAN	ECM-associated proteins	Galectin-2	√
LGALS3	LEG3_HUMAN	ECM-associated proteins	Galectin-3	√
LGALS3BP	LG3BP_HUMAN	ECM-associated proteins	Galectin-3-binding protein	√
LGALS8	LEG8_HUMAN	ECM-associated proteins	Galectin-8	√
MMP9	MMP9_HUMAN	ECM-associated proteins	Matrix metalloproteinase-9	×
MUC1	A0A087WVJ0_HUMAN (+5)	ECM-associated proteins	Mucin-1 (Fragment)	√
P4HA1	P4HA1_HUMAN	ECM-associated proteins	Prolyl 4-hydroxylase subunit alpha-1	√

PLG	PLMN_HUMAN	ECM-associated proteins	Plasminogen	√
PLOD1	PLOD1_HUMAN	ECM-associated proteins	Procollagen-lysine,2-oxoglutarate 5-dioxygenase 1	√
PLOD2	E7ETU9_HUMAN (+1)	ECM-associated proteins	Procollagen-lysine,2-oxoglutarate 5-dioxygenase 2	×
PLOD3	PLOD3_HUMAN	ECM-associated proteins	Procollagen-lysine,2-oxoglutarate 5-dioxygenase 3	√
PLSCR1	C9J7K9_HUMAN (+1)	ECM-associated proteins	Phospholipid scramblase 1	×
PLXNB1	PLXB1_HUMAN	ECM-associated proteins	Plexin-B1	×
PLXNB2	PLXB2_HUMAN	ECM-associated proteins	Plexin-B2	√
PLXND1	PLXD1_HUMAN	ECM-associated proteins	Plexin-D1	×
PRDX1	PRDX1_HUMAN	ECM-associated proteins	Peroxiredoxin-1	√
PRTN3	PRTN3_HUMAN (+1)	ECM-associated proteins	Myeloblastin	×
S100A10	S10AA_HUMAN	ECM-associated proteins	Protein S100 calcium-binding protein -A10	×
S100A11	S10AB_HUMAN	ECM-associated proteins	Protein S100 calcium-binding protein -A11	√
S100A14	S10AE_HUMAN	ECM-associated proteins	Protein S100 calcium-binding protein -A14	√
S100A6	R4GN98_HUMAN (+1)	ECM-associated proteins	Protein S100 calcium-binding protein -A6	×
S100A8	S10A8_HUMAN	ECM-associated proteins	Protein S100 calcium-binding protein -A8	√
S100A9	S10A9_HUMAN	ECM-associated proteins	Protein S100 calcium-binding protein -A9	√
SERPINA5	IPSP_HUMAN	ECM-associated proteins	Plasma serine protease inhibitor	√
SERPINB12	SPB12_HUMAN	ECM-associated proteins	Serpin B12	√
SERPINC1	ANT3_HUMAN	ECM-associated proteins	Antithrombin-III	√
SERPINF1	PEDF_HUMAN	ECM-associated proteins	Pigment epithelium-derived factor	√
SERPINF2	A2AP_HUMAN	ECM-associated proteins	Alpha-2-antiplasmin	×
SERPING1	IC1_HUMAN	ECM-associated proteins	Plasma protease C1 inhibitor	√
SERPINH1	SERPH_HUMAN	ECM-associated proteins	Serpin H1	√
SOD1	SODC_HUMAN	ECM-associated proteins	Superoxide dismutase [Cu-Zn]	×
SOD3	SODE_HUMAN	ECM-associated proteins	Extracellular superoxide dismutase [Cu-Zn]	√
TGM1	TGM1_HUMAN	ECM-associated proteins	Protein-glutamine gamma-glutamyltransferase K	√
TGM2	TGM2_HUMAN	ECM-associated proteins	Protein-glutamine gamma-glutamyltransferase 2	√
TGM3	TGM3_HUMAN	ECM-associated proteins	Protein-glutamine gamma-glutamyltransferase E	√
TIMP3	TIMP3_HUMAN	ECM-associated proteins	Metalloproteinase inhibitor 3	√
AGRN	AGRIN_HUMAN	Glycoproteins	Agrin	√

CRELD1	CREL1_HUMAN	Glycoproteins	Cysteine-rich with Epidermal growth factor-like domain protein 1	√
DPT	DERM_HUMAN	Glycoproteins	Dermatopontin	√
ECM1	ECM1_HUMAN	Glycoproteins	Extracellular matrix protein 1	√
EFEMP1	FBLN3_HUMAN	Glycoproteins	Epidermal growth factor-containing fibulin-like extracellular matrix protein 1	√
EMILIN1	A0A0C4DFX3_HUMAN (+1)	Glycoproteins	EMILIN-1	√
FBLN1	FBLN1_HUMAN	Glycoproteins	Fibulin-1	√
FBLN5	FBLN5_HUMAN (+1)	Glycoproteins	Fibulin-5	×
FBN1	FBN1_HUMAN	Glycoproteins	Fibrillin-1	√
FGA	FIBA_HUMAN	Glycoproteins	Fibrinogen alpha chain	√
FGB	FIBB_HUMAN	Glycoproteins	Fibrinogen beta chain	√
FGG	FIBG_HUMAN	Glycoproteins	Fibrinogen gamma chain	√
FGL1	FGL1_HUMAN	Glycoproteins	Fibrinogen-like protein 1	
FN1	FINC_HUMAN	Glycoproteins	Fibronectin	√
FRAS1	FRAS1_HUMAN	Glycoproteins	Fraser Extracellular Matrix Complex Subunit 1	√
IGFBP7	IBP7_HUMAN	Glycoproteins	Insulin-like growth factor-binding protein 7	√
LAMA2	LAMA2_HUMAN	Glycoproteins	Laminin subunit alpha-2	×
LAMA3	A0A0A0MSA0_HUMAN (+1)	Glycoproteins	Laminin subunit alpha-3	×
LAMA4	A0A0A0MQS9_HUMAN (+1)	Glycoproteins	Laminin subunit alpha-4	√
LAMA5	LAMA5_HUMAN	Glycoproteins	Laminin subunit alpha-5	√
LAMB1	G3XAI2_HUMAN	Glycoproteins	Laminin subunit beta-1	√
LAMB2	LAMB2_HUMAN	Glycoproteins	Laminin subunit beta-2	√
LAMC1	LAMC1_HUMAN	Glycoproteins	Laminin subunit gamma-1	√
LTBP4	LTBP4_HUMAN	Glycoproteins	Latent-transforming growth factor beta-binding protein 4	×
MATN2	MATN2_HUMAN	Glycoproteins	Matrilin-2	√
MFAP4	K7ES70_HUMAN (+1)	Glycoproteins	Microfibril-associated glycoprotein 4	√
MFGE8	MFGM_HUMAN	Glycoproteins	Lactadherin	√

MGP	MGP_HUMAN	Glycoproteins	Matrix Gla protein	√
MMRN2	MMRN2_HUMAN	Glycoproteins	Multimerin-2	×
NID1	NID1_HUMAN	Glycoproteins	Nidogen-1	√
NID2	A0A0A0MTL9_HUMAN	Glycoproteins	Nidogen-2	√
NPNT	D6RH31_HUMAN	Glycoproteins	Nephronectin (Fragment)	√
NTN4	NET4_HUMAN	Glycoproteins	Netrin-4	×
PAPLN	PPN_HUMAN	Glycoproteins	Papilin	×
POSTN	B1ALD9_HUMAN	Glycoproteins	Periostin	√
PXDN	PXDN_HUMAN	Glycoproteins	Peroxidasin homolog	×
SBSPON	SBSPO_HUMAN	Glycoproteins	Somatomedin-B and thrombospondin type-1 domain-containing protein	√
SPARC	F5GY03_HUMAN (+1)	Glycoproteins	Secreted protein acidic and rich in cysteine (Fragment)	×
TGFBI	BGH3_HUMAN	Glycoproteins	Transforming growth factor-beta-induced protein ig-h3	√
THBS1	TSP1_HUMAN	Glycoproteins	Thrombospondin-1	×
THSD4	THSD4_HUMAN	Glycoproteins	Thrombospondin type-1 domain-containing protein 4	×
TINAG	TINAG_HUMAN	Glycoproteins	Tubulointerstitial nephritis antigen	√
TINAGL1	TINAL_HUMAN	Glycoproteins	Tubulointerstitial nephritis antigen-like	√
TNC	TENA_HUMAN	Glycoproteins	Tenascin	√
VTN	VTNC_HUMAN	Glycoproteins	Vitronectin	√
VWA1	VWA1_HUMAN	Glycoproteins	von Willebrand factor A domain-containing protein 1	√
VWF	VWF_HUMAN	Glycoproteins	von Willebrand factor	√
ASPN	ASPN_HUMAN	Proteoglycans	Asporin	√
BGN	PGS1_HUMAN	Proteoglycans	Biglycan	√
DCN	PGS2_HUMAN	Proteoglycans	Decorin	√
HSPG2	PGBM_HUMAN	Proteoglycans	Basement membrane-specific heparan sulfate proteoglycan core protein	√
LUM	LUM_HUMAN	Proteoglycans	Lumican	√
OGN	MIME_HUMAN	Proteoglycans	Mimecan	×
PRELP	PRELP_HUMAN	Proteoglycans	Prolargin	√
PRG2	PRG2_HUMAN	Proteoglycans	Bone marrow proteoglycan	×

PRG3	PRG3_HUMAN	Proteoglycans	Proteoglycan 3	x
VCAN	CSPG2_HUMAN	Proteoglycans	Versican core protein	x

**Appendix Table 3.3** Novelty of TI ECM proteins identified by UniProt and Pubmed databases.

Novel in TI matrix: Identified in TI ECM for the first time. Novel in Kidney: Not previously reported in kidney of any species. Novel in Human Kidney: Not previously reported in human kidney. Known in tubulointerstitium: Previously reported in the tubulointerstitium in any species.

Gene Name	Category	Description	Novelty	Reference(s)
A2M	ECM associated	Alpha-2-macroglobulin	Known in TI	(1, 2)
AGRN	Basement membrane	Agrin	Known in TI	(3, 4)
AGT	ECM associated	Angiotensinogen	Known in TI	(3, 5)
AMBP	ECM associated	Protein AMBP	Known in TI	(3, 6, 7)
ANXA1	ECM associated	Annexin A1	Known in TI	(1, 8)
ANXA2	Basement membrane	Annexin A2	Known in TI	(3, 9)
ANXA4	ECM associated	Annexin A4	Known in TI	(1, 10)
BGN	Other structural	Biglycan	Known in TI	(3, 11)
CCT6A	ECM associated	T-complex protein 1 subunit zeta	Known in TI	(12-14)
COL18A1	Basement membrane	Collagen alpha-1(XVIII) chain	Known in TI	(3, 15, 16)
COL1A1	Other structural	Collagen alpha-1(I) chain	Known in TI	(3, 17, 18)
COL1A2	Other structural	Collagen alpha-2(I) chain	Known in TI	(3, 19)
COL3A1	Other structural	Collagen alpha-1(III) chain	Known in TI	(3, 20)
COL4A1	Basement membrane	Collagen alpha-1(IV) chain	Known in TI	(3, 4, 21)
COL4A2	Basement membrane	Collagen alpha-2(IV) chain	Known in TI	(3, 4)
COL4A6	Basement membrane	Collagen alpha-6(IV) chain	Known in TI	(3, 22, 23)
COL5A2	Other structural	Collagen alpha-2(V) chain	Known in TI	(20, 24, 25)
COL8A1	Basement membrane	Collagen alpha-1(VIII) chain	Known in TI	(26, 27)
CTSB	ECM associated	Cathepsin B	Known in TI	(1, 28)
CTSD	ECM associated	Cathepsin D	Known in TI	(3, 29)
CTSH	ECM associated	Pro-cathepsin H	Known in TI	(30, 31)

DCN	Other structural	Decorin	Known in TI	(3, 32)
DSP	ECM associated	Desmoplakin	Known in TI	(33, 34)
FBLN1	Other structural	Fibulin-1	Known in TI	(3, 4)
FBN1	Basement membrane	Fibrillin-1	Known in TI	(3, 11)
FN1	Basement membrane	Fibronectin	Known in TI	(3, 35)
FRAS1	Basement membrane	Fraser Extracellular Matrix Complex Subunit 1	Known in TI	(3, 36)
FREM2	Basement membrane	Fraser Extracellular Matrix Complex Subunit 1-related extracellular matrix protein 2	Known in TI	(3, 36)
HSP90B1	ECM associated	Endoplasmin	Known in TI	(37, 38)
IGFBP7	Other structural	Insulin-like growth factor-binding protein 7	Known in TI	(39)
LAMA1	Basement membrane	Laminin subunit alpha-1	Known in TI	(40-42)
LAMA4	Basement membrane	Laminin subunit alpha-4	Known in TI	(1, 43)
LAMA5	Basement membrane	Laminin subunit alpha-5	Known in TI	(3, 4, 44)
LAMB1	Basement membrane	Laminin subunit beta-1	Known in TI	(3, 42)
LAMB2	Basement membrane	Laminin subunit beta-2	Known in TI	(3, 42)
LAMC1	Basement membrane	Laminin subunit gamma-1	Known in TI	(3, 42)
LGALS1	ECM associated	Galectin-1	Known in TI	(3, 45)
LGALS3	ECM associated	Galectin-3	Known in TI	(3, 46)
LGALS3BP	ECM associated	Galectin-3-binding protein	Known in TI	(47, 48)
LGALS8	ECM associated	Galectin-8	Known in TI	(49)
LUM	Other structural	Lumican	Known in TI	(1, 32)
MFAP4	Other structural	Microfibril-associated glycoprotein 4	Known in TI	(50-52)
MGP	Other structural	Matrix Gla protein	Known in TI	(3, 53)



MUC1	ECM associated	Mucin-1 (Fragment)	Known in TI	(54)
NID1	Basement membrane	Nidogen-1	Known in TI	(3, 4)
NPNT	Other structural	Nephronectin (Fragment)	Known in TI	(3, 55)
PLEC	ECM associated	Plectin	Known in TI	(56-59)
PLOD3	ECM associated	Procollagen-lysine,2-oxoglutarate 5-dioxygenase 3	Known in TI	(60, 61)
POSTN	Other structural	Periostin	Known in TI	(3, 62)
PRDX1	ECM associated	Peroxiredoxin-1	Known in TI	(63)
S100A8	ECM associated	Protein S100 calcium-binding protein -A8	Known in TI	(3, 64)
S100A9	ECM associated	Protein S100 calcium-binding protein -A9	Known in TI	(1, 64)
SERPINA5	ECM associated	Plasma serine protease inhibitor	Known in TI	(3, 65)
SERPINH1	ECM associated	Serpin H1	Known in TI	(3, 66)
TGFBI	Other structural	Transforming growth factor-beta-induced protein ig-h3	Known in TI	(3, 4, 67)
TIMP3	Basement membrane	Metalloproteinase inhibitor 3	Known in TI	(3, 68)
TINAG	Basement membrane	Tubulointerstitial nephritis antigen	Known in TI	(3, 69)
TINAGL1	Basement membrane	Tubulointerstitial nephritis antigen-like	Known in TI	(3, 4)
TNC	Basement membrane	Tenascin	Known in TI	(1, 70)
CCT2	ECM associated	T-complex protein 1 subunit beta	Novel in Human Kidney	(71-73)
DSG1	ECM associated	Desmoglein-1	Novel in Human Kidney	(74, 75)
MATN2	Other structural	Matrilin-2	Novel in Human Kidney	(76, 77)
PLOD1	ECM associated	Procollagen-lysine,2-oxoglutarate 5-dioxygenase 1	Novel in Human Kidney	(78, 79)
CASP14	ECM associated	Caspase-14	Novel in Kidney	-
SERPIND1	ECM associated	Heparin cofactor 2	Novel in Kidney	-
ADAM10	ECM associated	Disintegrin and metalloproteinase domain-containing protein 10	Novel in TI matrix	(80-82)
AHSG	ECM associated	Alpha-2-HS-glycoprotein	Novel in TI matrix	(83)
ANXA11	ECM associated	Annexin A11	Novel in TI matrix	(3)

ANXA13	ECM associated	Annexin A13	Novel in TI matrix	(84)
ANXA5	ECM associated	Annexin A5	Novel in TI matrix	(3)
ANXA6	ECM associated	Annexin A6	Novel in TI matrix	(1)
ANXA7	ECM associated	Annexin A7	Novel in TI matrix	(3)
APCS	ECM associated	Serum amyloid P-component	Novel in TI matrix	(3)
APOE	ECM associated	Apolipoprotein E	Novel in TI matrix	(3)
APOH	ECM associated	Beta-2-glycoprotein 1	Novel in TI matrix	(85, 86)
ASPN	Other structural	Asporin	Novel in TI matrix	(3)
CD109	ECM associated	CD109 antigen	Novel in TI matrix	(87)
CLU	ECM associated	Clusterin	Novel in TI matrix	(3)
COL12A1	Other structural	Collagen alpha-1(XII) chain	Novel in TI matrix	(3)
COL14A1	Other structural	Collagen alpha-1(XIV) chain	Novel in TI matrix	(88)
COL15A1	Basement membrane	Collagen alpha-1(XV) chain	Novel in TI matrix	(3)
COL4A3	Basement membrane	Collagen alpha-3(IV) chain	Novel in TI matrix	(3) (89)
COL4A4	Basement membrane	Collagen alpha-4(IV) chain	Novel in TI matrix	(3)
COL4A5	Basement membrane	Collagen alpha-5(IV) chain	Novel in TI matrix	(3, 23)
COL5A1	Other structural	Collagen alpha-1(V) chain	Novel in TI matrix	(1)
COL6A1	Other structural	Collagen alpha-1(VI) chain	Novel in TI matrix	(3)
COL6A2	Other structural	Collagen alpha-2(VI) chain	Novel in TI matrix	(3)
COL6A3	Other structural	Collagen alpha-3(VI) chain	Novel in TI matrix	(3)
CRELD1	ECM associated	Cysteine-rich with Epidermal growth factor-like domain protein 1	Novel in TI matrix	(1)
CSPG4	ECM associated	Chondroitin sulfate proteoglycan 4	Novel in TI matrix	(90, 91)
CTSA	ECM associated	Carboxypeptidase	Novel in TI matrix	(1)
CTSC	ECM associated	Dipeptidyl peptidase 1	Novel in TI matrix	(92, 93)
CTSG	ECM associated	Cathepsin G	Novel in TI matrix	(3)
CTSZ	ECM associated	Cathepsin Z	Novel in TI matrix	(1)

DCD	ECM associated	Dermcidin	Novel in TI matrix	(3)
DEFA1	ECM associated	Neutrophil defensin 1	Novel in TI matrix	(3)
DPT	Other structural	Dermatopontin	Novel in TI matrix	(3)
ECM1	Other structural	Extracellular matrix protein 1	Novel in TI matrix	(1)
EFEMP1	Other structural	Epidermal growth factor-containing fibulin-like extracellular matrix protein 1	Novel in TI matrix	(24, 94)
ELN	Other structural	Elastin	Novel in TI matrix	(95, 96)
EMCN	ECM associated	Endomucin	Novel in TI matrix	(97)
EMILIN1	Other structural	EMILIN-1	Novel in TI matrix	(3)
F9	ECM associated	Coagulation factor IX	Novel in TI matrix	(3)
FGA	Other structural	Fibrinogen alpha chain	Novel in TI matrix	(3)
FGB	Other structural	Fibrinogen beta chain	Novel in TI matrix	(3)
FGG	Other structural	Fibrinogen gamma chain	Novel in TI matrix	(3)
FLG2	ECM associated	Filaggrin-2	Novel in TI matrix	(3)
FREM1	Basement membrane	Fraser Extracellular Matrix Complex Subunit 1-related extracellular matrix protein 1	Novel in TI matrix	(98)
GANAB	ECM associated	Neutral alpha-glucosidase AB	Novel in TI matrix	(99)
HPX	ECM associated	Hemopexin	Novel in TI matrix	(3)
HRG	ECM associated	Histidine-rich glycoprotein	Novel in TI matrix	(1)
HRNR	ECM associated	Hornerin	Novel in TI matrix	(1)
HSPG2	Basement membrane	Basement membrane-specific heparan sulfate proteoglycan core protein	Novel in TI matrix	(3)
INHBE	ECM associated	Inhibin beta E chain	Novel in TI matrix	(3)
ITIH4	ECM associated	Inter-alpha-trypsin inhibitor heavy chain H4	Novel in TI matrix	(100)
ITIH5	ECM associated	Inter-alpha-trypsin inhibitor heavy chain H5	Novel in TI matrix	(1)
KCP	Other structural	Kielin/chordin-like protein	Novel in TI matrix	(101)
KNG1	ECM associated	Kininogen-1	Novel in TI matrix	(3)
LGALS2	ECM associated	Galectin-2	Novel in TI matrix	(102)
LMAN1	ECM associated	Protein Endoplasmic Reticulum-Golgi Intermediate Compartment Protein 53	Novel in TI matrix	(103, 104)
MFGE8	Other structural	Lactadherin	Novel in TI matrix	(105, 106)

NID2	Basement membrane	Nidogen-2	Novel in TI matrix	(3)
P4HA1	ECM associated	Prolyl 4-hydroxylase subunit alpha-1	Novel in TI matrix	(1)
PLG	ECM associated	Plasminogen	Novel in TI matrix	(1)
PLXNB2	ECM associated	Plexin-B2	Novel in TI matrix	(1)
PRELP	Other structural	Prolargin	Novel in TI matrix	(3)
S100A11	ECM associated	Protein S100 calcium-binding protein -A11	Novel in TI matrix	(1)
S100A14	ECM associated	Protein S100 calcium-binding protein -A14	Novel in TI matrix	(1)
SBSPON	Other structural	Somatomedin-B and thrombospondin type-1 domain-containing protein	Novel in TI matrix	(1)
SERPINB12	ECM associated	Serpin B12	Novel in TI matrix	(1)
SERPINC1	ECM associated	Antithrombin-III	Novel in TI matrix	(3)
SERPINF1	ECM associated	Pigment epithelium-derived factor	Novel in TI matrix	(107, 108)
SERPING1	ECM associated	Plasma protease C1 inhibitor	Novel in TI matrix	(3)
SOD3	ECM associated	Extracellular superoxide dismutase [Cu-Zn]	Novel in TI matrix	(109, 110)
TGM1	ECM associated	Protein-glutamine gamma-glutamyltransferase K	Novel in TI matrix	(1)
TGM2	ECM associated	Protein-glutamine gamma-glutamyltransferase 2	Novel in TI matrix	(3)
TGM3	ECM associated	Protein-glutamine gamma-glutamyltransferase E	Novel in TI matrix	(1)
VTN	Other structural	Vitronectin	Novel in TI matrix	(3)
VWA1	Basement membrane	von Willebrand factor A domain-containing protein 1	Novel in TI matrix	(3)
VWF	Other structural	von Willebrand factor	Novel in TI matrix	(1)

**Appendix Table 3.4** List of ECM proteins only identified in the human glomerular matrix

<b>Gene name</b>	<b>Category</b>	<b>Previous identification in kidney</b>
ADAM9	ECM-associated	Dog renal epithelial (MDCK) and human renal cancer cells (111, 112)
ADAMTSL5	ECM-associated	<i>Not previously identified in kidney</i>
ANGPTL6	ECM-associated	Human glomerular matrix (1)
<i>COL16A1</i>	<i>Other structural</i>	<i>Not previously identified in kidney</i>
COL7A1	Other structural	mRNA detected in rat kidney (25)
CTSS	ECM-associated	Human kidney (113)
CXCL14	ECM-associated	mRNA identified in mouse kidney (114)
ELANE	ECM-associated	Human glomerular matrix (1, 3)
F3	ECM-associated	Human glomeruli but not tubules (115)
FBLN5	Other structural	mRNA identified in human kidney (116, 117)
FGF2	ECM-associated	Human glomeruli (118)
<i>FGL1</i>	<i>ECM-associated</i>	<i>Not previously identified in kidney</i>
HTRA1	ECM-associated	Human kidney glomeruli and tubules (119)
ITIH1	ECM-associated	Human glomerular matrix (3)
LAMA2	Basement membrane	Human glomerular matrix (1, 3)
LAMA3	Basement membrane	Human glomerular matrix (1)
LTBP4	Basement membrane	mRNA identified in human kidney (120)
MMP9	ECM-associated	Human glomerular matrix (1, 3)
MMRN2	ECM-associated	Human glomerular matrix (1)
NTN4	Basement membrane	Human glomerular matrix (1)
OGN	Other structural	Mouse kidney (121)
PAPLN	Basement membrane	Human glomerular matrix (1)
PLOD2	ECM-associated	Human kidney (122)
<i>PLSCR1</i>	<i>ECM-associated</i>	<i>Not previously identified in kidney</i>
PLXNB1	ECM-associated	Mouse glomeruli and tubules (123)
PLXND1	ECM-associated	mRNA identified in mouse podocytes (124)
PRG2	Other structural	mRNA identified in human kidney (125)
<i>PRG3</i>	<i>ECM-associated</i>	<i>Not previously identified in kidney</i>
PRTN3	ECM-associated	Human glomeruli (126)
PXDN	Basement membrane	Mouse kidney (127)
S100A10	ECM-associated	Human glomerular matrix (1)
S100A6	ECM-associated	Human glomerular matrix (1, 3)
SERPINF2	ECM-associated	Mouse kidney (128)
SOD1	ECM-associated	Rat glomeruli (129)
SPARC	Basement membrane	Human glomerular matrix (1)
THBS1	ECM-associated	Human glomerular matrix (130)
THSD4	ECM-associated	Human glomerular matrix (1)
VCAN	Other structural	Human glomerular matrix (131)

**Appendix Table 4.1.** List of proteins in the decellularised human kidney cortical samples identified by proteomics.

#	Gene name	Accession Number	Identified Proteins
1	HSPG2	PGBM_HUMAN	Basement membrane-specific heparan sulfate proteoglycan core protein
2	COL4A2	CO4A2_HUMAN	Collagen alpha-2(IV) chain
3	COL1A1	CO1A1_HUMAN	Collagen alpha-1(I) chain
4	COL4A1	CO4A1_HUMAN	Collagen alpha-1(IV) chain
5	COL6A3	CO6A3_HUMAN	Collagen alpha-3(VI) chain
6	ATP5A1	ATPA_HUMAN	ATP synthase subunit alpha, mitochondrial
7	COL1A2	CO1A2_HUMAN	Collagen alpha-2(I) chain
8	LAMA5	LAMA5_HUMAN	Laminin subunit alpha-5
9	ATP5B	ATPB_HUMAN	ATP synthase subunit beta, mitochondrial
10	KRT1	K2C1_HUMAN	Keratin, type II cytoskeletal 1
11	ACTB	ACTB_HUMAN (+1)	Actin, cytoplasmic 1
12	MYH9	MYH9_HUMAN	Myosin-9
13	COL3A1	CO3A1_HUMAN	Collagen alpha-1(III) chain
14	ALB	ALBU_HUMAN	Serum albumin
15	LRP2	LRP2_HUMAN	Low-density lipoprotein receptor-related protein 2
16	FBN1	FBN1_HUMAN	Fibrillin-1
17	ATP1A1	AT1A1_HUMAN	Sodium/potassium-transporting ATPase subunit alpha-1
18	HSPD1	CH60_HUMAN	60 kDa heat shock protein, mitochondrial
19	COL6A1	CO6A1_HUMAN	Collagen alpha-1(VI) chain
20	ACTN4	ACTN4_HUMAN	Alpha-actinin-4
21	ALDH6A1	MMSA_HUMAN	Methylmalonate-semialdehyde dehydrogenase [acylating], mitochondrial
22	TUBB	TBB5_HUMAN	Tubulin beta chain
23	GATM	GATM_HUMAN	Glycine amidinotransferase, mitochondrial
24	COL18A1	CO1A1_HUMAN	Collagen alpha-1(XVIII) chain
25	KRT10	K1C10_HUMAN	Keratin, type I cytoskeletal 10
26	CLTC	CLH1_HUMAN	Clathrin heavy chain 1
27	HADHA	ECHA_HUMAN	Trifunctional enzyme subunit alpha, mitochondrial
28	PCK2	PCKGM_HUMAN	Phosphoenolpyruvate carboxykinase [GTP], mitochondrial
29	LAMB2	LAMB2_HUMAN	Laminin subunit beta-2
30	SPTBN1	SPTB2_HUMAN	Spectrin beta chain, non-erythrocytic 1
31	GLUD1	DHE3_HUMAN	Glutamate dehydrogenase 1, mitochondrial
32	EHHADH	ECHP_HUMAN	Peroxisomal bifunctional enzyme
33	ALDH4A1	AL4A1_HUMAN	Delta-1-pyrroline-5-carboxylate dehydrogenase, mitochondrial
34	LAMC1	LAMC1_HUMAN	Laminin subunit gamma-1
35	KRT9	K1C9_HUMAN	Keratin, type I cytoskeletal 9
36	COL4A4	CO4A4_HUMAN	Collagen alpha-4(IV) chain
37	ACSM2A	ACS2A_HUMAN	Acyl-coenzyme A synthetase ACSM2A, mitochondrial
38	TINAG	TINAG_HUMAN	Tubulointerstitial nephritis antigen

39	VIM	VIME_HUMAN	Vimentin
40	VDAC1	VDAC1_HUMAN	Voltage-dependent anion-selective channel protein 1
41	ALDOB	ALDOB_HUMAN	Fructose-bisphosphate aldolase B
42	TUBA1B	TBA1B_HUMAN	Tubulin alpha-1B chain
43	KRT2	K22E_HUMAN	Keratin, type II cytoskeletal 2 epidermal
44	COL12A1	COCA1_HUMAN	Collagen alpha-1(XII) chain
45	NID1	NID1_HUMAN	Nidogen-1
46	SPTAN1	SPTN1_HUMAN	Spectrin alpha chain, non-erythrocytic 1
47	ANPEP	AMPN_HUMAN	Aminopeptidase N
48	HIST1H2BD	H2B1D_HUMAN	Histone H2B type 1-D
49	FN1	FINC_HUMAN	Fibronectin
50	C3	CO3_HUMAN	Complement C3
51	LMNA	LMNA_HUMAN	Prelamin-A/C
52	SLC25A5	ADT2_HUMAN	ADP/ATP translocase 2
53	TINAGL1	TINAL_HUMAN	Tubulointerstitial nephritis antigen-like
54	PC	PYC_HUMAN	Pyruvate carboxylase, mitochondrial
55	ACAT1	THIL_HUMAN	Acetyl-CoA acetyltransferase, mitochondrial
56	ENO1	ENOA_HUMAN	Alpha-enolase
57	ACO2	ACON_HUMAN	Aconitate hydratase, mitochondrial
58	IDH2	IDHP_HUMAN	Isocitrate dehydrogenase [NADP], mitochondrial
59	TUFM	EFTU_HUMAN	Elongation factor Tu, mitochondrial
60	CUBN	CUBN_HUMAN	Cubilin
61	AIFM1	AIFM1_HUMAN	Apoptosis-inducing factor 1, mitochondrial
62	PLEC	PLEC_HUMAN	Plectin
63	MSN	MOES_HUMAN	Moesin
64	HIST2H2AA3	H2A2A_HUMAN (+1)	Histone H2A type 2-A
65	COL6A2	CO6A2_HUMAN	Collagen alpha-2(VI) chain
66	LRPPRC	LPPRC_HUMAN	Leucine-rich PPR motif-containing protein, mitochondrial
67	LAMB1	LAMB1_HUMAN	Laminin subunit beta-1
68	ALDH2	ALDH2_HUMAN	Aldehyde dehydrogenase, mitochondrial
69	SDHA	SDHA_HUMAN	Succinate dehydrogenase [ubiquinone] flavoprotein subunit, mitochondrial
70	COL4A3	CO4A3_HUMAN	Collagen alpha-3(IV) chain
71	HADHB	ECHB_HUMAN	Trifunctional enzyme subunit beta, mitochondrial
72	FREM2	FREM2_HUMAN	FRAS1-related extracellular matrix protein 2
73	MYH10	MYH10_HUMAN	Myosin-10
74	EEF1A1	EF1A1_HUMAN	Elongation factor 1-alpha 1
75	NNT	NNTM_HUMAN	NAD(P) transhydrogenase, mitochondrial
76	GAPDH	G3P_HUMAN	Glyceraldehyde-3-phosphate dehydrogenase
77	TGFBI	BGH3_HUMAN	Transforming growth factor-beta-induced protein ig-h3
78	HSPA9	GRP75_HUMAN	Stress-70 protein, mitochondrial
79	MME	NEP_HUMAN	Nepilysin

80	ACAA2	THIM_HUMAN	3-ketoacyl-CoA thiolase, mitochondrial
81	COL14A1	COEA1_HUMAN	Collagen alpha-1(XIV) chain
82	HIST1H4A	H4_HUMAN	Histone H4
83	UQCRC1	QCR1_HUMAN	Cytochrome b-c1 complex subunit 1, mitochondrial
84	BHMT	BHMT1_HUMAN	Betaine--homocysteine S-methyltransferase 1
85	MDH2	MDHM_HUMAN	Malate dehydrogenase, mitochondrial
86	FLNA	FLNA_HUMAN	Filamin-A
87	ASS1	ASSY_HUMAN	Argininosuccinate synthase
88	ACSF2	ACSF2_HUMAN	Acyl-CoA synthetase family member 2, mitochondrial
89	HSP90AA1	HS90A_HUMAN	Heat shock protein HSP 90-alpha
90	ECHS1	ECHM_HUMAN	Enoyl-CoA hydratase, mitochondrial
91	HSPA8	HSP7C_HUMAN	Heat shock cognate 71 kDa protein
92	HSPA5	GRP78_HUMAN	78 kDa glucose-regulated protein
93	ACSL1	ACSL1_HUMAN	Long-chain-fatty-acid--CoA ligase 1
94	DPP4	DPP4_HUMAN	Dipeptidyl peptidase 4
95	ALDH7A1	AL7A1_HUMAN	Alpha-aminoadipic semialdehyde dehydrogenase
96	IMMT	MIC60_HUMAN	MICOS complex subunit MIC60
97	POSTN	POSTN_HUMAN	Periostin
98	APOE	APOE_HUMAN	Apolipoprotein E
99	BGN	PGS1_HUMAN	Biglycan
100	MAOB	AOFB_HUMAN	Amine oxidase [flavin-containing] B
101	COL4A5	CO4A5_HUMAN	Collagen alpha-5(IV) chain
102	ACADVL	ACADV_HUMAN	Very long-chain specific acyl-CoA dehydrogenase, mitochondrial
103	FGB	FIBB_HUMAN (+1)	Fibrinogen beta chain
104	SLC25A3	MPCP_HUMAN	Phosphate carrier protein, mitochondrial
105	ANXA2	ANXA2_HUMAN	Annexin A2
106	COL5A1	CO5A1_HUMAN	Collagen alpha-1(V) chain
107	HSP90B1	ENPL_HUMAN	Endoplasmin
108	AGRN	AGRIN_HUMAN	Agrin
109	HIST1H1E	H14_HUMAN	Histone H1.4
110	ECH1	ECH1_HUMAN	Delta(3,5)-Delta(2,4)-dienoyl-CoA isomerase, mitochondrial
111	LDHB	LDHB_HUMAN	L-lactate dehydrogenase B chain
112	NDUFS1	NDUS1_HUMAN	NADH-ubiquinone oxidoreductase 75 kDa subunit, mitochondrial
113	CRYAB	CRYAB_HUMAN	Alpha-crystallin B chain
114	TGM2	TGM2_HUMAN	Protein-glutamine gamma-glutamyltransferase 2
115	UQCRC2	QCR2_HUMAN	Cytochrome b-c1 complex subunit 2, mitochondrial
116	DPEP1	DPEP1_HUMAN (+1)	Dipeptidase 1
117	ACADM	ACADM_HUMAN	Medium-chain specific acyl-CoA dehydrogenase, mitochondrial
118	PGK1	PGK1_HUMAN	Phosphoglycerate kinase 1



119	ABAT	GABT_HUMAN	4-aminobutyrate aminotransferase, mitochondrial
120	FGA	FIBA_HUMAN	Fibrinogen alpha chain
121	GLYAT	GLYAT_HUMAN	Glycine N-acyltransferase
122	GOT2	AATM_HUMAN	Aspartate aminotransferase, mitochondrial
123	SUCLG2	SUCB2_HUMAN	Succinyl-CoA ligase [GDP-forming] subunit beta, mitochondrial
124	FGG	FIBG_HUMAN	Fibrinogen gamma chain
125	SERPINA1	A1AT_HUMAN	Alpha-1-antitrypsin
126	TLN1	TLN1_HUMAN	Talin-1
127	MARC2	MARC2_HUMAN	Mitochondrial amidoxime reducing component 2
128	PRODH2	PROD2_HUMAN	Probable proline dehydrogenase 2
129	UMOD	UROM_HUMAN	Uromodulin
130	OGDH	ODO1_HUMAN	2-oxoglutarate dehydrogenase, mitochondrial
131	VDAC2	VDAC2_HUMAN	Voltage-dependent anion-selective channel protein 2
132	SLC25A13	CMC2_HUMAN	Calcium-binding mitochondrial carrier protein Aralar2
133	PKM	KPYM_HUMAN	Pyruvate kinase PKM
134	KRT8	K2C8_HUMAN	Keratin, type II cytoskeletal 8
135	CAT	CATA_HUMAN	Catalase
136	ATP6V1A	VATA_HUMAN	V-type proton ATPase catalytic subunit A
137	GLS	GLSK_HUMAN	Glutaminase kidney isoform, mitochondrial
138	UGT1A9	UD19_HUMAN (+1)	UDP-glucuronosyltransferase 1-9
139	ANXA6	ANXA6_HUMAN	Annexin A6
140	ATP5O	ATPO_HUMAN	ATP synthase subunit O, mitochondrial
141	KRT14	K1C14_HUMAN	Keratin, type I cytoskeletal 14
142	PCCA	PCCA_HUMAN	Propionyl-CoA carboxylase alpha chain, mitochondrial
143	CRYZ	QOR_HUMAN	Quinone oxidoreductase
144	EMILIN1	EMIL1_HUMAN	EMILIN-1
145	C9	CO9_HUMAN (+1)	Complement component C9
146	GPX3	GPX3_HUMAN	Glutathione peroxidase 3
147	VTN	VTNC_HUMAN	Vitronectin
148	COL5A2	CO5A2_HUMAN	Collagen alpha-2(V) chain
149	KRT18	K1C18_HUMAN	Keratin, type I cytoskeletal 18
150	AK4	KAD4_HUMAN	Adenylate kinase 4, mitochondrial
151	TPI1	TPIS_HUMAN	Triosephosphate isomerase
152	GSTA1	GSTA1_HUMAN	Glutathione S-transferase A1
153	PHB2	PHB2_HUMAN	Prohibitin-2
154	ALDH1L1	AL1L1_HUMAN	Cytosolic 10-formyltetrahydrofolate dehydrogenase
155	PCCB	PCCB_HUMAN	Propionyl-CoA carboxylase beta chain, mitochondrial
156	ETFA	ETFA_HUMAN	Electron transfer flavoprotein subunit alpha, mitochondrial
157	PDIA3	PDIA3_HUMAN	Protein disulfide-isomerase A3

158	DYNC1H1	DYHC1_HUMAN	Cytoplasmic dynein 1 heavy chain 1
159	CNDP2	CNDP2_HUMAN	Cytosolic non-specific dipeptidase
160	ATP5F1	AT5F1_HUMAN	ATP synthase F(0) complex subunit B1, mitochondrial
161	ATP6V1B2	VATB2_HUMAN	V-type proton ATPase subunit B, brain isoform
162	CHDH	CHDH_HUMAN	Choline dehydrogenase, mitochondrial
163	SLC25A11	M2OM_HUMAN	Mitochondrial 2-oxoglutarate/malate carrier protein
164	ETFB	ETFB_HUMAN	Electron transfer flavoprotein subunit beta
165	ACY1	ACY1_HUMAN	Aminoacylase-1
166	GANAB	GANAB_HUMAN	Neutral alpha-glucosidase AB
167	ASPN	ASPN_HUMAN	Asporin
168	SUCLG1	SUCA_HUMAN (+2)	Succinyl-CoA ligase [ADP/GDP-forming] subunit alpha, mitochondrial
169	HSD17B4	DHB4_HUMAN	Peroxisomal multifunctional enzyme type 2
170	COX4I1	COX41_HUMAN	Cytochrome c oxidase subunit 4 isoform 1, mitochondrial
171	UGT2B7	UD2B7_HUMAN	UDP-glucuronosyltransferase 2B7
172	KRT5	K2C5_HUMAN	Keratin, type II cytoskeletal 5
173	PRDX1	PRDX1_HUMAN	Peroxiredoxin-1
174	ACADSB	ACDSB_HUMAN	Short/branched chain specific acyl-CoA dehydrogenase, mitochondrial
175	MGAM	E7ER45_HUMAN	Maltase-glucoamylase, intestinal
176	MAOA	AOFA_HUMAN	Amine oxidase [flavin-containing] A
177	H2AFY	H2AY_HUMAN	Core histone macro-H2A.1
178	NDUFV1	NDUV1_HUMAN	NADH dehydrogenase [ubiquinone] flavoprotein 1, mitochondrial
179	AK2	KAD2_HUMAN	Adenylate kinase 2, mitochondrial
180	IGHG1	A0A087X079_HUMAN	Ig gamma-1 chain C region
181	P4HB	PDIA1_HUMAN	Protein disulfide-isomerase
182	PHB	PHB_HUMAN	Prohibitin
183	PEBP1	PEBP1_HUMAN	Phosphatidylethanolamine-binding protein 1
184	PDZK1	NHRF3_HUMAN	Na(+)/H(+) exchange regulatory cofactor NHE-RF3
185	DLD	DLDH_HUMAN	Dihydrolipoyl dehydrogenase, mitochondrial
186	HSPB1	HSPB1_HUMAN	Heat shock protein beta-1
187	SFXN1	SFXN1_HUMAN	Sideroflexin-1
188	ANXA4	ANXA4_HUMAN	Annexin A4
189	DCXR	DCXR_HUMAN (+1)	L-xylulose reductase
190	MCCC2	MCCB_HUMAN	Methylcrotonoyl-CoA carboxylase beta chain, mitochondrial
191	EZR	EZRI_HUMAN	Ezrin
192	ATP5C1	ATPG_HUMAN (+1)	ATP synthase subunit gamma, mitochondrial
193	HIBCH	HIBCH_HUMAN	3-hydroxyisobutyryl-CoA hydrolase, mitochondrial
194	DECR1	DECR_HUMAN (+1)	2,4-dienoyl-CoA reductase, mitochondrial
195	SLC25A10	DIC_HUMAN (+2)	Mitochondrial dicarboxylate carrier

196	ACTC1	ACTC_HUMAN	Actin, alpha cardiac muscle 1
197	NID2	NID2_HUMAN	Nidogen-2
198	SHMT1	GLYC_HUMAN	Serine hydroxymethyltransferase, cytosolic
199	ACAA1	THIK_HUMAN	3-ketoacyl-CoA thiolase, peroxisomal
200	CBR1	CBR1_HUMAN	Carbonyl reductase [NADPH] 1
201	CLU	CLUS_HUMAN	Clusterin
202	ALDH1B1	AL1B1_HUMAN	Aldehyde dehydrogenase X, mitochondrial
203	MTCH2	MTCH2_HUMAN	Mitochondrial carrier homolog 2
204	PPIA	PPIA_HUMAN	Peptidyl-prolyl cis-trans isomerase A
205	TST	THTR_HUMAN	Thiosulfate sulfurtransferase
206	RPS27A	RS27A_HUMAN	Ubiquitin-40S ribosomal protein S27a
207	ACSM2B	ACS2B_HUMAN	Acyl-coenzyme A synthetase ACSM2B, mitochondrial
208	CA2	CAH2_HUMAN	Carbonic anhydrase 2
209	GSTK1	GSTK1_HUMAN	Glutathione S-transferase kappa 1
210	FH	FUMH_HUMAN	Fumarate hydratase, mitochondrial
211	PRDX3	PRDX3_HUMAN	Thioredoxin-dependent peroxide reductase, mitochondrial
212	DLST	ODO2_HUMAN (+1)	Dihydropyridoxyllysine-residue succinyltransferase component of 2-oxoglutarate dehydrogenase complex, mitochondrial
213	VIL1	VILI_HUMAN	Villin-1
214	HADH	HCDH_HUMAN	Hydroxyacyl-coenzyme A dehydrogenase, mitochondrial
215	SOD2	SODM_HUMAN	Superoxide dismutase [Mn], mitochondrial
216	SARDH	SARDH_HUMAN	Sarcosine dehydrogenase, mitochondrial
217	IGK@	Q6PIL8_HUMAN (+2)	IGK@ protein
218	NDUFS2	NDUS2_HUMAN	NADH dehydrogenase [ubiquinone] iron-sulfur protein 2, mitochondrial
219	RPN1	RPN1_HUMAN	Dolichyl-diphosphooligosaccharide--protein glycosyltransferase subunit 1
220	DMGDH	M2GD_HUMAN	Dimethylglycine dehydrogenase, mitochondrial
221	MT-CO2	COX2_HUMAN	Cytochrome c oxidase subunit 2
222	SDHB	SDHB_HUMAN	Succinate dehydrogenase [ubiquinone] iron-sulfur subunit, mitochondrial
223	C5	CO5_HUMAN	Complement C5
224	SLC25A1	TXTP_HUMAN	Tricarboxylate transport protein, mitochondrial
225	ALDH9A1	AL9A1_HUMAN	4-trimethylaminobutyraldehyde dehydrogenase
226	EPHX1	HYEP_HUMAN	Epoxide hydrolase 1
227	HBB	HBB_HUMAN	Hemoglobin subunit beta
228	COL4A6	CO4A6_HUMAN	Collagen alpha-6(IV) chain
229	CANX	CALX_HUMAN	Calnexin
230	AKR1A1	AK1A1_HUMAN	Alcohol dehydrogenase [NADP(+)]
231	GRHPR	GRHPR_HUMAN	Glyoxylate reductase/hydroxypyruvate reductase
232	PCYOX1	PCYOX_HUMAN	Prenylcysteine oxidase 1

233	TUBB4B	TBB4B_HUMAN	Tubulin beta-4B chain
234	HSD17B10	HCD2_HUMAN (+1)	3-hydroxyacyl-CoA dehydrogenase type-2
235	HSP90AB1	HS90B_HUMAN	Heat shock protein HSP 90-beta
236	SLC9A3R1	NHRF1_HUMAN	Na(+)/H(+) exchange regulatory cofactor NHE-RF1
237	CTNNA1	CTNA1_HUMAN	Catenin alpha-1
238	TF	TRFE_HUMAN	Serotransferrin
239	GPI	G6PI_HUMAN	Glucose-6-phosphate isomerase
240	AOC3	AOC3_HUMAN	Membrane primary amine oxidase
241	HSPE1	CH10_HUMAN	10 kDa heat shock protein, mitochondrial
242	C4B	CO4B_HUMAN	Complement C4-B
243	ITGB1	ITB1_HUMAN	Integrin beta-1
244	RPS3	RS3_HUMAN	40S ribosomal protein S3
245	NDUFA9	NDUA9_HUMAN	NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 9, mitochondrial
246	FBP1	F16P1_HUMAN	Fructose-1,6-bisphosphatase 1
247	ECI2	ECI2_HUMAN	Enoyl-CoA delta isomerase 2, mitochondrial
248	VWA1	VWA1_HUMAN	von Willebrand factor A domain-containing protein 1
249	LONP1	LONM_HUMAN	Lon protease homolog, mitochondrial
250	CTNND1	CTND1_HUMAN	Catenin delta-1
251	CTSD	CATD_HUMAN	Cathepsin D
252	DPT	DERM_HUMAN	Dermatopontin
253	LMNB2	LMNB2_HUMAN	Lamin-B2
254	VCP	TERA_HUMAN	Transitional endoplasmic reticulum ATPase
255	EEF2	EF2_HUMAN	Elongation factor 2
256	PBLD	PBLD_HUMAN	Phenazine biosynthesis-like domain-containing protein
257	ACOX1	ACOX1_HUMAN	Peroxisomal acyl-coenzyme A oxidase 1
258	TRAP1	TRAP1_HUMAN	Heat shock protein 75 kDa, mitochondrial
259	AGXT2	AGT2_HUMAN	Alanine--glyoxylate aminotransferase 2, mitochondrial
260	FMO1	FMO1_HUMAN	Dimethylaniline monooxygenase [N-oxide-forming] 1
261	CTNNB1	CTNB1_HUMAN	Catenin beta-1
262	LUM	LUM_HUMAN	Lumican
263	NDUFA10	NDUAA_HUMAN	NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 10, mitochondrial
264	SLC3A2	4F2_HUMAN (+2)	4F2 cell-surface antigen heavy chain
265	ALDH3A2	AL3A2_HUMAN	Fatty aldehyde dehydrogenase
266	HSD11B2	DHI2_HUMAN	Corticosteroid 11-beta-dehydrogenase isozyme 2
267	DSP	DESP_HUMAN	Desmoplakin
268	FRAS1	FRAS1_HUMAN	Extracellular matrix protein FRAS1
269	C21orf33	ES1_HUMAN	ES1 protein homolog, mitochondrial
270	ATP1B1	AT1B1_HUMAN	Sodium/potassium-transporting ATPase subunit beta-1
271	SORD	DHSO_HUMAN	Sorbitol dehydrogenase
272	PDCD6IP	PDC6I_HUMAN	Programmed cell death 6-interacting protein

273	MCCC1	MCCA_HUMAN (+1)	Methylcrotonoyl-CoA carboxylase subunit alpha, mitochondrial
274	ALDOA	ALDOA_HUMAN	Fructose-bisphosphate aldolase A
275	COL1A1	D3DTX7_HUMAN	Collagen, type I, alpha 1, isoform CRA_a
276	CMA1	CMA1_HUMAN	Chymase
277	VCL	VINC_HUMAN	Vinculin
278	GGT1	GGT1_HUMAN	Gamma-glutamyltranspeptidase 1
279	MGST3	MGST3_HUMAN	Microsomal glutathione S-transferase 3
280	AQP1	AQP1_HUMAN	Aquaporin-1
281	PFKL	PFKAL_HUMAN	ATP-dependent 6-phosphofructokinase, liver type
282	FTCD	FTCD_HUMAN	Formimidoyltransferase-cyclodeaminase
283	DHRS4	DHRS4_HUMAN	Dehydrogenase/reductase SDR family member 4
284	CCT8	TCPQ_HUMAN	T-complex protein 1 subunit theta
285	GPD1	GPDA_HUMAN	Glycerol-3-phosphate dehydrogenase [NAD(+)], cytoplasmic
286	LAP3	AMPL_HUMAN	Cytosol aminopeptidase
287	HBA1	HBA_HUMAN	Hemoglobin subunit alpha
288	SLC25A6	ADT3_HUMAN	ADP/ATP translocase 3
289	AKR1C3	AK1C3_HUMAN	Aldo-keto reductase family 1 member C3
290	C11orf54	CK054_HUMAN	Ester hydrolase C11orf54
291	ETFDH	ETFD_HUMAN	Electron transfer flavoprotein-ubiquinone oxidoreductase, mitochondrial
292	SUCLA2	SUCB1_HUMAN	Succinyl-CoA ligase [ADP-forming] subunit beta, mitochondrial
293	CALR	CALR_HUMAN	Calreticulin
294	PCK1	PCKGC_HUMAN	Phosphoenolpyruvate carboxykinase, cytosolic [GTP]
295	ATP5L	ATP5L_HUMAN	ATP synthase subunit g, mitochondrial
296	ATP6V1H	VATH_HUMAN	V-type proton ATPase subunit H
297	SFXN2	SFXN2_HUMAN	Sideroflexin-2
298	PRDX6	PRDX6_HUMAN	Peroxiredoxin-6
299	MTHFD1	C1TC_HUMAN	C-1-tetrahydrofolate synthase, cytoplasmic
300	NPNT	NPNT_HUMAN	Nephronectin
301	NDUFS3	NDUS3_HUMAN	NADH dehydrogenase [ubiquinone] iron-sulfur protein 3, mitochondrial
302	ALDH1A1	AL1A1_HUMAN	Retinal dehydrogenase 1
303	VDAC3	VDAC3_HUMAN	Voltage-dependent anion-selective channel protein 3
304	CCT4	TCPD_HUMAN	T-complex protein 1 subunit delta
305	OCIAD2	OCAD2_HUMAN	OCIA domain-containing protein 2
306	LDHA	LDHA_HUMAN	L-lactate dehydrogenase A chain
307	HMGCL	HMGCL_HUMAN	Hydroxymethylglutaryl-CoA lyase, mitochondrial
308	NDUFA4	NDUA4_HUMAN	Cytochrome c oxidase subunit NDUFA4
309	AHCY	SAHH_HUMAN	Adenosylhomocysteinase
310	HNRNPA2B1	ROA2_HUMAN	Heterogeneous nuclear ribonucleoproteins A2/B1

311	PTGR1	PTGR1_HUMAN	Prostaglandin reductase 1
312	TCP1	TCPA_HUMAN	T-complex protein 1 subunit alpha
313	C6	CO6_HUMAN	Complement component C6
314	PCBP1	PCBP1_HUMAN	Poly(rC)-binding protein 1
315	HSDL2	HSDL2_HUMAN	Hydroxysteroid dehydrogenase-like protein 2
316	MVP	MVP_HUMAN	Major vault protein
317	JUP	PLAK_HUMAN	Junction plakoglobin
318	TKT	TKT_HUMAN	Transketolase
319	RAB1A	RAB1A_HUMAN	Ras-related protein Rab-1A
320	HIBADH	3HIDH_HUMAN	3-hydroxyisobutyrate dehydrogenase, mitochondrial
321	PPIB	PPIB_HUMAN	Peptidyl-prolyl cis-trans isomerase B
322	RPS8	RS8_HUMAN	40S ribosomal protein S8
323	NIPSNAP1	NIPS1_HUMAN	Protein NipSnap homolog 1
324	MYO1C	MYO1C_HUMAN	Unconventional myosin-1c
325	CYB5R3	NB5R3_HUMAN	NADH-cytochrome b5 reductase 3
326	APCS	SAMP_HUMAN (+1)	Serum amyloid P-component
327	HOGA1	HOGA1_HUMAN	4-hydroxy-2-oxoglutarate aldolase, mitochondrial
328	LDHD	LDHD_HUMAN	Probable D-lactate dehydrogenase, mitochondrial
329	ADH1B	ADH1B_HUMAN	Alcohol dehydrogenase 1B
330	RTN4	RTN4_HUMAN	Reticulon-4
331	RAB14	RAB14_HUMAN	Ras-related protein Rab-14
332	CS	CISY_HUMAN	Citrate synthase, mitochondrial
333	CYB5R1	NB5R1_HUMAN	NADH-cytochrome b5 reductase 1
334	CDH16	CAD16_HUMAN	Cadherin-16
335	BBOX1	BODG_HUMAN	Gamma-butyrobetaine dioxygenase
336	SELENBP1	SBP1_HUMAN	Selenium-binding protein 1
337	UQCRCFS1	UCRI_HUMAN	Cytochrome b-c1 complex subunit Rieske, mitochondrial
338	LETM1	LETM1_HUMAN	LETM1 and EF-hand domain-containing protein 1, mitochondrial
339	ANXA7	ANXA7_HUMAN	Annexin A7
340	CISD1	CISD1_HUMAN	CDGSH iron-sulfur domain-containing protein 1
341	CCT2	TCPB_HUMAN	T-complex protein 1 subunit beta
342	AMBP	AMBP_HUMAN	Protein AMBP
343	GSTP1	GSTP1_HUMAN	Glutathione S-transferase P
344	SAMM50	SAM50_HUMAN	Sorting and assembly machinery component 50 homolog
345	GOT1	AATC_HUMAN	Aspartate aminotransferase, cytoplasmic
346	ACOT1	ACOT1_HUMAN (+1)	Acyl-coenzyme A thioesterase 1
347	PIGR	PIGR_HUMAN	Polymeric immunoglobulin receptor
348	IVD	IVD_HUMAN	Isovaleryl-CoA dehydrogenase, mitochondrial
349	ARF1	ARF1_HUMAN (+1)	ADP-ribosylation factor 1
350	RAB5C	RAB5C_HUMAN	Ras-related protein Rab-5C

351	EIF4A1	IF4A1_HUMAN	Eukaryotic initiation factor 4A-I
352	PIPOX	SOX_HUMAN	Peroxisomal sarcosine oxidase
353	LYZ	LYSC_HUMAN (+1)	Lysozyme C
354	HRSP12	UK114_HUMAN	Ribonuclease UK114
355	DDC	Q53Y41_HUMAN (+1)	Dopa decarboxylase (Aromatic L-amino acid decarboxylase)
356	DHX9	DHX9_HUMAN	ATP-dependent RNA helicase A
357	PFN1	PROF1_HUMAN	Profilin-1
358	AP2A2	AP2A2_HUMAN	AP-2 complex subunit alpha-2
359	CLIC4	CLIC4_HUMAN	Chloride intracellular channel protein 4
360	HNRNPK	HNRPK_HUMAN	Heterogeneous nuclear ribonucleoprotein K
361	SHMT2	GLYM_HUMAN	Serine hydroxymethyltransferase, mitochondrial
362	VAT1	VAT1_HUMAN	Synaptic vesicle membrane protein VAT-1 homolog
363	PDIA4	PDIA4_HUMAN	Protein disulfide-isomerase A4
364	ACAD11	ACD11_HUMAN	Acyl-CoA dehydrogenase family member 11
365	CCT3	TCPG_HUMAN	T-complex protein 1 subunit gamma
366	C7	CO7_HUMAN	Complement component C7
367	RPL12	RL12_HUMAN	60S ribosomal protein L12
368	RBP4	RET4_HUMAN	Retinol-binding protein 4
369	C8G	CO8G_HUMAN	Complement component C8 gamma chain
370	RAB2A	RAB2A_HUMAN	Ras-related protein Rab-2A
371	MUT	MUTA_HUMAN	Methylmalonyl-CoA mutase, mitochondrial
372	RAB7A	RAB7A_HUMAN	Ras-related protein Rab-7a
373	ATP2A2	AT2A2_HUMAN	Sarcoplasmic/endoplasmic reticulum calcium ATPase 2
374	ANXA11	ANX11_HUMAN	Annexin A11
375	ATP6V1E1	VATE1_HUMAN	V-type proton ATPase subunit E 1
376	CRAT	CACP_HUMAN	Carnitine O-acetyltransferase
377	ABHD10	ABHDA_HUMAN	Mycophenolic acid acyl-glucuronide esterase, mitochondrial
378	BDH2	BDH2_HUMAN	3-hydroxybutyrate dehydrogenase type 2
379	DPYS	DPYS_HUMAN	Dihydropyrimidinase
380	IDH1	IDHC_HUMAN	Isocitrate dehydrogenase [NADP] cytoplasmic
381	CCT7	TCPH_HUMAN	T-complex protein 1 subunit eta
382	PDIA6	PDIA6_HUMAN	Protein disulfide-isomerase A6
383	YWHAE	1433E_HUMAN	14-3-3 protein epsilon
384	QDPR	DHPR_HUMAN	Dihydropteridine reductase
385	ATP5I	ATP5I_HUMAN	ATP synthase subunit e, mitochondrial
386	ATP6V0D1	VA0D1_HUMAN	V-type proton ATPase subunit d 1
387	TIMP3	TIMP3_HUMAN	Metalloproteinase inhibitor 3
388	IGL@	Q8N355_HUMAN	IGL@ protein
389	SND1	SND1_HUMAN	Staphylococcal nuclease domain-containing protein 1
390	GLYATL1	GLYL1_HUMAN (+1)	Glycine N-acyltransferase-like protein 1
391	KRT6C	K2C6C_HUMAN	Keratin, type II cytoskeletal 6C

392	TUBA4A	TBA4A_HUMAN	Tubulin alpha-4A chain
393	SLC5A2	SC5A2_HUMAN	Sodium/glucose cotransporter 2
394	RAB11B	RB11B_HUMAN	Ras-related protein Rab-11B
395	NIT2	NIT2_HUMAN	Omega-amidase NIT2
396	CRYL1	CRYL1_HUMAN	Lambda-crystallin homolog
397	CLIC1	CLIC1_HUMAN (+2)	Chloride intracellular channel protein 1
398	BPHL	BPHL_HUMAN	Valacyclovir hydrolase
399	METTL7A	MET7A_HUMAN (+2)	Methyltransferase-like protein 7A
400	MACROD1	MACD1_HUMAN	O-acetyl-ADP-ribose deacetylase MACROD1
401	BDH1	BDH_HUMAN	D-beta-hydroxybutyrate dehydrogenase, mitochondrial
402	RAP1A	RAP1A_HUMAN	Ras-related protein Rap-1A
403	TAGLN	TAGL_HUMAN	Transgelin
404	PEPD	PEPD_HUMAN	Xaa-Pro dipeptidase
405	ITGA1	ITA1_HUMAN	Integrin alpha-1
406	-	B2R941_HUMAN	cDNA, FLJ94198, highly similar to Homo sapiens carboxypeptidase A3 (mast cell) (CPA3), mRNA
407	PNP	PNPH_HUMAN	Purine nucleoside phosphorylase
408	CYCS	CYC_HUMAN (+5)	Cytochrome c
409	USMG5	USMG5_HUMAN	Up-regulated during skeletal muscle growth protein 5
410	PRDX2	PRDX2_HUMAN	Peroxiredoxin-2
411	RPS18	RS18_HUMAN	40S ribosomal protein S18
412	ATP5H	ATP5H_HUMAN	ATP synthase subunit d, mitochondrial
413	RPLP0	RLA0_HUMAN	60S acidic ribosomal protein P0
414	MDH1	MDHC_HUMAN (+1)	Malate dehydrogenase, cytoplasmic
415	DDOST	OST48_HUMAN	Dolichyl-diphosphooligosaccharide--protein glycosyltransferase 48 kDa subunit
416	RPL5	RL5_HUMAN	60S ribosomal protein L5
417	C8A	CO8A_HUMAN	Complement component C8 alpha chain
418	NDUFB10	NDUBA_HUMAN	NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit 10
419	DNAJC11	DJC11_HUMAN	DnaJ homolog subfamily C member 11
420	HKDC1	HKDC1_HUMAN	Putative hexokinase HKDC1
421	C8B	CO8B_HUMAN	Complement component C8 beta chain
422	YWHAB	1433B_HUMAN	14-3-3 protein beta/alpha
423	HPD	HPPD_HUMAN (+1)	4-hydroxyphenylpyruvate dioxygenase
424	TPP1	TPP1_HUMAN	Tripeptidyl-peptidase 1
425	CLEC18A	CL18A_HUMAN	C-type lectin domain family 18 member A
426	HSD17B8	DHB8_HUMAN	Estradiol 17-beta-dehydrogenase 8
427	ACADS	ACADS_HUMAN	Short-chain specific acyl-CoA dehydrogenase, mitochondrial
428	ACAD8	ACAD8_HUMAN	Isobutyryl-CoA dehydrogenase, mitochondrial
429	CFHR1	FHR1_HUMAN	Complement factor H-related protein 1
430	PHGDH	SERA_HUMAN	D-3-phosphoglycerate dehydrogenase
431	ALDH5A1	SSDH_HUMAN	Succinate-semialdehyde dehydrogenase,



			mitochondrial
432	ERLIN2	ERLN2_HUMAN	Erlin-2
433	FAH	FAAA_HUMAN	Fumarylacetoacetase
434	POR	NCPR_HUMAN	NADPH--cytochrome P450 reductase
435	SLC25A4	ADT1_HUMAN	ADP/ATP translocase 1
436	CD81	CD81_HUMAN	CD81 antigen
437	FABP1	FABPL_HUMAN (+2)	Fatty acid-binding protein, liver
438	RPN2	RPN2_HUMAN	Dolichyl-diphosphooligosaccharide--protein glycosyltransferase subunit 2
439	RPL9	RL9_HUMAN (+2)	60S ribosomal protein L9
440	HLA-A	1A34_HUMAN	HLA class I histocompatibility antigen, A-34 alpha chain
441	YWHAZ	1433Z_HUMAN	14-3-3 protein zeta/delta
442	APOH	APOH_HUMAN	Beta-2-glycoprotein 1
443	PODXL	PODXL_HUMAN (+2)	Podocalyxin
444	GSR	GSHR_HUMAN (+1)	Glutathione reductase, mitochondrial
445	STOM	STOM_HUMAN	Erythrocyte band 7 integral membrane protein
446	KRT16	K1C16_HUMAN	Keratin, type I cytoskeletal 16
447	PRKDC	PRKDC_HUMAN	DNA-dependent protein kinase catalytic subunit
448	ATP5J2	ATPK_HUMAN	ATP synthase subunit f, mitochondrial
449	FLOT1	FLOT1_HUMAN	Flotillin-1
450	RBP5	RET5_HUMAN	Retinol-binding protein 5
451	COX5B	COX5B_HUMAN	Cytochrome c oxidase subunit 5B, mitochondrial
452	HLA-B	1B42_HUMAN	HLA class I histocompatibility antigen, B-42 alpha chain
453	HLA-DRB1	2B1D_HUMAN	HLA class II histocompatibility antigen, DRB1-13 beta chain
454	NDUFB7	NDUB7_HUMAN	NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit 7
455	GAL3ST1	G3ST1_HUMAN	Galactosylceramide sulfotransferase
456	ESYT1	ESYT1_HUMAN	Extended synaptotagmin-1
457	NAPSA	NAPSA_HUMAN	Napsin-A
458	FABP3	FABPH_HUMAN	Fatty acid-binding protein, heart
459	HLA-DRA	DRA_HUMAN (+5)	HLA class II histocompatibility antigen, DR alpha chain
460	INHBE	INHBE_HUMAN	Inhibin beta E chain
461	NAPRT	PNCB_HUMAN	Nicotinate phosphoribosyltransferase
462	FAHD1	FAHD1_HUMAN	Acylpyruvase FAHD1, mitochondrial
463	F9	FA9_HUMAN	Coagulation factor IX
464	NDRG1	NDRG1_HUMAN (+2)	Protein NDRG1
465	MLEC	MLEC_HUMAN (+1)	Malectin
466	COL16A1	COGA1_HUMAN	Collagen alpha-1(XVI) chain
467	THSD4	THSD4_HUMAN	Thrombospondin type-1 domain-containing protein 4
468	LANCL1	A0A024R3Z5_HUMAN	LanC lantibiotic synthetase component C-like 1 (Bacterial), isoform CRA_b

469	HRNR	HORN_HUMAN	Hornerin
470	PGRMC2	PGRC2_HUMAN	Membrane-associated progesterone receptor component 2
471	IST1	IST1_HUMAN	IST1 homolog
472	CRYM	CRYM_HUMAN	Ketimine reductase mu-crystallin
473	ITGA3	ITA3_HUMAN	Integrin alpha-3
474	EIF3L	EIF3L_HUMAN	Eukaryotic translation initiation factor 3 subunit L
475	S100A11	S10AB_HUMAN	Protein S100-A11
476	BST2	BST2_HUMAN (+2)	Bone marrow stromal antigen 2
477	KPRP	KPRP_HUMAN	Keratinocyte proline-rich protein
478	COL21A1	COLA1_HUMAN (+1)	Collagen alpha-1(XXI) chain
479	FBLN2	FBLN2_HUMAN	Fibulin-2

**Appendix Table 4.2.** List of proteins in the un-decellularised (intact) human kidney cortical samples identified by proteomics.

#	Gene name	Accession Number	Identified Proteins
1	HSPG2	PGBM_HUMAN	Basement membrane-specific heparan sulfate proteoglycan core protein
2	COL4A2	CO4A2_HUMAN	Collagen alpha-2(IV) chain
3	COL1A1	CO1A1_HUMAN	Collagen alpha-1(I) chain
4	COL4A1	CO4A1_HUMAN	Collagen alpha-1(IV) chain
5	COL6A3	CO6A3_HUMAN	Collagen alpha-3(VI) chain
6	ATP5A1	ATPA_HUMAN	ATP synthase subunit alpha, mitochondrial
7	COL1A2	CO1A2_HUMAN	Collagen alpha-2(I) chain
8	LAMA5	LAMA5_HUMAN	Laminin subunit alpha-5
9	ATP5B	ATPB_HUMAN	ATP synthase subunit beta, mitochondrial
10	KRT1	K2C1_HUMAN	Keratin, type II cytoskeletal 1
11	ACTB	ACTB_HUMAN (+1)	Actin, cytoplasmic 1
12	MYH9	MYH9_HUMAN	Myosin-9
13	COL3A1	CO3A1_HUMAN	Collagen alpha-1(III) chain
14	ALB	ALBU_HUMAN	Serum albumin
15	LRP2	LRP2_HUMAN	Low-density lipoprotein receptor-related protein 2
16	FBN1	FBN1_HUMAN	Fibrillin-1
17	ATP1A1	AT1A1_HUMAN	Sodium/potassium-transporting ATPase subunit alpha-1
18	HSPD1	CH60_HUMAN	60 kDa heat shock protein, mitochondrial
19	COL6A1	CO6A1_HUMAN	Collagen alpha-1(VI) chain
20	ACTN4	ACTN4_HUMAN	Alpha-actinin-4
21	ALDH6A1	MMSA_HUMAN	Methylmalonate-semialdehyde dehydrogenase [acylating], mitochondrial
22	TUBB	TBB5_HUMAN	Tubulin beta chain
23	GATM	GATM_HUMAN	Glycine amidinotransferase, mitochondrial
24	COL18A1	CO1A1_HUMAN	Collagen alpha-1(XVIII) chain
25	KRT10	K1C10_HUMAN	Keratin, type I cytoskeletal 10
26	CLTC	CLH1_HUMAN	Clathrin heavy chain 1
27	HADHA	ECHA_HUMAN	Trifunctional enzyme subunit alpha, mitochondrial
28	PCK2	PCKGM_HUMAN	Phosphoenolpyruvate carboxykinase [GTP], mitochondrial
29	LAMB2	LAMB2_HUMAN	Laminin subunit beta-2
30	SPTBN1	SPTB2_HUMAN	Spectrin beta chain, non-erythrocytic 1
31	GLUD1	DHE3_HUMAN	Glutamate dehydrogenase 1, mitochondrial
32	EHHADH	ECHP_HUMAN	Peroxisomal bifunctional enzyme
33	ALDH4A1	AL4A1_HUMAN	Delta-1-pyrroline-5-carboxylate dehydrogenase, mitochondrial
34	LAMC1	LAMC1_HUMAN	Laminin subunit gamma-1
35	KRT9	K1C9_HUMAN	Keratin, type I cytoskeletal 9

36	COL4A4	CO4A4_HUMAN	Collagen alpha-4(IV) chain
37	ACSM2A	ACS2A_HUMAN	Acyl-coenzyme A synthetase ACSM2A, mitochondrial
38	TINAG	TINAG_HUMAN	Tubulointerstitial nephritis antigen
39	VIM	VIME_HUMAN	Vimentin
40	VDAC1	VDAC1_HUMAN	Voltage-dependent anion-selective channel protein 1
41	ALDOB	ALDOB_HUMAN	Fructose-bisphosphate aldolase B
42	TUBA1B	TBA1B_HUMAN	Tubulin alpha-1B chain
43	KRT2	K22E_HUMAN	Keratin, type II cytoskeletal 2 epidermal
44	COL12A1	COCA1_HUMAN	Collagen alpha-1(XII) chain
45	NID1	NID1_HUMAN	Nidogen-1
46	SPTAN1	SPTN1_HUMAN	Spectrin alpha chain, non-erythrocytic 1
47	ANPEP	AMPN_HUMAN	Aminopeptidase N
48	HIST1H2BD	H2B1D_HUMAN	Histone H2B type 1-D
49	FN1	FINC_HUMAN	Fibronectin
50	C3	CO3_HUMAN	Complement C3
51	LMNA	LMNA_HUMAN	Prelamin-A/C
52	SLC25A5	ADT2_HUMAN	ADP/ATP translocase 2
53	TINAGL1	TINAL_HUMAN	Tubulointerstitial nephritis antigen-like
54	PC	PYC_HUMAN	Pyruvate carboxylase, mitochondrial
55	ACAT1	THIL_HUMAN	Acetyl-CoA acetyltransferase, mitochondrial
56	ENO1	ENOA_HUMAN	Alpha-enolase
57	ACO2	ACON_HUMAN	Aconitate hydratase, mitochondrial
58	IDH2	IDHP_HUMAN	Isocitrate dehydrogenase [NADP], mitochondrial
59	TUFM	EFTU_HUMAN	Elongation factor Tu, mitochondrial
60	CUBN	CUBN_HUMAN	Cubilin
61	AIFM1	AIFM1_HUMAN	Apoptosis-inducing factor 1, mitochondrial
62	PLEC	PLEC_HUMAN	Plectin
63	MSN	MOES_HUMAN	Moesin
64	HIST2H2AA3	H2A2A_HUMAN (+1)	Histone H2A type 2-A
65	COL6A2	CO6A2_HUMAN	Collagen alpha-2(VI) chain
66	LRPPRC	LPPRC_HUMAN	Leucine-rich PPR motif-containing protein, mitochondrial
67	LAMB1	LAMB1_HUMAN	Laminin subunit beta-1
68	ALDH2	ALDH2_HUMAN	Aldehyde dehydrogenase, mitochondrial
69	SDHA	SDHA_HUMAN	Succinate dehydrogenase [ubiquinone] flavoprotein subunit, mitochondrial
70	COL4A3	CO4A3_HUMAN	Collagen alpha-3(IV) chain
71	HADHB	ECHB_HUMAN	Trifunctional enzyme subunit beta, mitochondrial
72	FREM2	FREM2_HUMAN	FRAS1-related extracellular matrix protein 2
73	MYH10	MYH10_HUMAN	Myosin-10
74	EEF1A1	EF1A1_HUMAN	Elongation factor 1-alpha 1

75	NNT	NNTM_HUMAN	NAD(P) transhydrogenase, mitochondrial
76	GAPDH	G3P_HUMAN	Glyceraldehyde-3-phosphate dehydrogenase
77	TGFBI	BGH3_HUMAN	Transforming growth factor-beta-induced protein ig-h3
78	HSPA9	GRP75_HUMAN	Stress-70 protein, mitochondrial
79	MME	NEP_HUMAN	Neprilysin
80	ACAA2	THIM_HUMAN	3-ketoacyl-CoA thiolase, mitochondrial
81	COL14A1	COEA1_HUMAN	Collagen alpha-1(XIV) chain
82	HIST1H4A	H4_HUMAN	Histone H4
83	UQCRC1	QCR1_HUMAN	Cytochrome b-c1 complex subunit 1, mitochondrial
84	BHMT	BHMT1_HUMAN	Betaine--homocysteine S-methyltransferase 1
85	MDH2	MDHM_HUMAN	Malate dehydrogenase, mitochondrial
86	FLNA	FLNA_HUMAN	Filamin-A
87	ASS1	ASSY_HUMAN	Argininosuccinate synthase
88	ACSF2	ACSF2_HUMAN	Acyl-CoA synthetase family member 2, mitochondrial
89	HSP90AA1	HS90A_HUMAN	Heat shock protein HSP 90-alpha
90	ECHS1	ECHM_HUMAN	Enoyl-CoA hydratase, mitochondrial
91	HSPA8	HSP7C_HUMAN	Heat shock cognate 71 kDa protein
92	HSPA5	GRP78_HUMAN	78 kDa glucose-regulated protein
93	ACSL1	ACSL1_HUMAN	Long-chain-fatty-acid--CoA ligase 1
94	DPP4	DPP4_HUMAN	Dipeptidyl peptidase 4
95	ALDH7A1	AL7A1_HUMAN	Alpha-aminoadipic semialdehyde dehydrogenase
96	IMMT	MIC60_HUMAN	MICOS complex subunit MIC60
97	POSTN	POSTN_HUMAN	Periostin
98	APOE	APOE_HUMAN	Apolipoprotein E
99	BGN	PGS1_HUMAN	Biglycan
100	MAOB	AOFB_HUMAN	Amine oxidase [flavin-containing] B
101	COL4A5	CO4A5_HUMAN	Collagen alpha-5(IV) chain
102	ACADVL	ACADV_HUMAN	Very long-chain specific acyl-CoA dehydrogenase, mitochondrial
103	FGB	FIBB_HUMAN (+1)	Fibrinogen beta chain
104	SLC25A3	MPCP_HUMAN	Phosphate carrier protein, mitochondrial
105	ANXA2	ANXA2_HUMAN	Annexin A2
106	COL5A1	CO5A1_HUMAN	Collagen alpha-1(V) chain
107	HSP90B1	ENPL_HUMAN	Endoplasmin
108	AGRN	AGRIN_HUMAN	Agrin
109	HIST1H1E	H14_HUMAN	Histone H1.4
110	ECH1	ECH1_HUMAN	Delta(3,5)-Delta(2,4)-dienoyl-CoA isomerase, mitochondrial
111	LDHB	LDHB_HUMAN	L-lactate dehydrogenase B chain
112	NDUFS1	NDUS1_HUMAN	NADH-ubiquinone oxidoreductase 75 kDa subunit, mitochondrial
113	CRYAB	CRYAB_HUMAN	Alpha-crystallin B chain

114	TGM2	TGM2_HUMAN	Protein-glutamine gamma-glutamyltransferase 2
115	UQCRC2	QCR2_HUMAN	Cytochrome b-c1 complex subunit 2, mitochondrial
116	DPEP1	DPEP1_HUMAN (+1)	Dipeptidase 1
117	ACADM	ACADM_HUMAN	Medium-chain specific acyl-CoA dehydrogenase, mitochondrial
118	PGK1	PGK1_HUMAN	Phosphoglycerate kinase 1
119	ABAT	GABT_HUMAN	4-aminobutyrate aminotransferase, mitochondrial
120	FGA	FIBA_HUMAN	Fibrinogen alpha chain
121	GLYAT	GLYAT_HUMAN	Glycine N-acyltransferase
122	GOT2	AATM_HUMAN	Aspartate aminotransferase, mitochondrial
123	SUCLG2	SUCB2_HUMAN	Succinyl-CoA ligase [GDP-forming] subunit beta, mitochondrial
124	FGG	FIBG_HUMAN	Fibrinogen gamma chain
125	SERPINA1	A1AT_HUMAN	Alpha-1-antitrypsin
126	TLN1	TLN1_HUMAN	Talin-1
127	MARC2	MARC2_HUMAN	Mitochondrial amidoxime reducing component 2
128	PRODH2	PROD2_HUMAN	Probable proline dehydrogenase 2
129	UMOD	UROM_HUMAN	Uromodulin
130	OGDH	ODO1_HUMAN	2-oxoglutarate dehydrogenase, mitochondrial
131	VDAC2	VDAC2_HUMAN	Voltage-dependent anion-selective channel protein 2
132	SLC25A13	CMC2_HUMAN	Calcium-binding mitochondrial carrier protein Aralar2
133	PKM	KPYM_HUMAN	Pyruvate kinase PKM
134	KRT8	K2C8_HUMAN	Keratin, type II cytoskeletal 8
135	CAT	CATA_HUMAN	Catalase
136	ATP6V1A	VATA_HUMAN	V-type proton ATPase catalytic subunit A
137	GLS	GLSK_HUMAN	Glutaminase kidney isoform, mitochondrial
138	UGT1A9	UD19_HUMAN (+1)	UDP-glucuronosyltransferase 1-9
139	ANXA6	ANXA6_HUMAN	Annexin A6
140	ATP5O	ATPO_HUMAN	ATP synthase subunit O, mitochondrial
141	KRT14	K1C14_HUMAN	Keratin, type I cytoskeletal 14
142	PCCA	PCCA_HUMAN	Propionyl-CoA carboxylase alpha chain, mitochondrial
143	CRYZ	QOR_HUMAN	Quinone oxidoreductase
144	EMILIN1	EMIL1_HUMAN	EMILIN-1
145	C9	CO9_HUMAN (+1)	Complement component C9
146	GPX3	GPX3_HUMAN	Glutathione peroxidase 3
147	VTN	VTNC_HUMAN	Vitronectin
148	COL5A2	CO5A2_HUMAN	Collagen alpha-2(V) chain
149	KRT18	K1C18_HUMAN	Keratin, type I cytoskeletal 18
150	AK4	KAD4_HUMAN	Adenylate kinase 4, mitochondrial
151	TPI1	TPIS_HUMAN	Triosephosphate isomerase

152	H3F3A	H33_HUMAN	Histone H3.3
153	GSTA1	GSTA1_HUMAN	Glutathione S-transferase A1
154	PHB2	PHB2_HUMAN	Prohibitin-2
155	ALDH1L1	AL1L1_HUMAN	Cytosolic 10-formyltetrahydrofolate dehydrogenase
156	PCCB	PCCB_HUMAN	Propionyl-CoA carboxylase beta chain, mitochondrial
157	ETFA	ETFA_HUMAN	Electron transfer flavoprotein subunit alpha, mitochondrial
158	PDIA3	PDIA3_HUMAN	Protein disulfide-isomerase A3
159	DYNC1H1	DYHC1_HUMAN	Cytoplasmic dynein 1 heavy chain 1
160	CNDP2	CNDP2_HUMAN	Cytosolic non-specific dipeptidase
161	ATP5F1	AT5F1_HUMAN	ATP synthase F(0) complex subunit B1, mitochondrial
162	ATP6V1B2	VATB2_HUMAN	V-type proton ATPase subunit B, brain isoform
163	CHDH	CHDH_HUMAN	Choline dehydrogenase, mitochondrial
164	SLC25A11	M2OM_HUMAN	Mitochondrial 2-oxoglutarate/malate carrier protein
165	ETFB	ETFB_HUMAN	Electron transfer flavoprotein subunit beta
166	ACY1	ACY1_HUMAN	Aminoacylase-1
167	GANAB	GANAB_HUMAN	Neutral alpha-glucosidase AB
168	ASPN	ASPN_HUMAN	Asporin
169	SUCLG1	SUCA_HUMAN (+2)	Succinyl-CoA ligase [ADP/GDP-forming] subunit alpha, mitochondrial
170	HSD17B4	DHB4_HUMAN	Peroxisomal multifunctional enzyme type 2
171	COX4I1	COX41_HUMAN	Cytochrome c oxidase subunit 4 isoform 1, mitochondrial
172	UGT2B7	UD2B7_HUMAN	UDP-glucuronosyltransferase 2B7
173	KRT5	K2C5_HUMAN	Keratin, type II cytoskeletal 5
174	PRDX1	PRDX1_HUMAN	Peroxiredoxin-1
175	ACADSB	ACDSB_HUMAN	Short/branched chain specific acyl-CoA dehydrogenase, mitochondrial
176	MGAM	E7ER45_HUMAN	Maltase-glucoamylase, intestinal
177	MAOA	AOFA_HUMAN	Amine oxidase [flavin-containing] A
178	H2AFY	H2AY_HUMAN	Core histone macro-H2A.1
179	NDUFV1	NDUV1_HUMAN	NADH dehydrogenase [ubiquinone] flavoprotein 1, mitochondrial
180	AK2	KAD2_HUMAN	Adenylate kinase 2, mitochondrial
181	IGHG1	A0A087X079_HUMAN	Ig gamma-1 chain C region
182	P4HB	PDIA1_HUMAN	Protein disulfide-isomerase
183	PHB	PHB_HUMAN	Prohibitin
184	PEBP1	PEBP1_HUMAN	Phosphatidylethanolamine-binding protein 1
185	PDZK1	NHRF3_HUMAN	Na(+)/H(+) exchange regulatory cofactor NHE-RF3
186	DLD	DLDH_HUMAN	Dihydrolipoyl dehydrogenase, mitochondrial

187	HSPB1	HSPB1_HUMAN	Heat shock protein beta-1
188	SFXN1	SFXN1_HUMAN	Sideroflexin-1
189	ANXA4	ANXA4_HUMAN	Annexin A4
190	DCXR	DCXR_HUMAN (+1)	L-xylulose reductase
191	HNRNPM	HNRPM_HUMAN	Heterogeneous nuclear ribonucleoprotein M
192	MCCC2	MCCB_HUMAN	Methylcrotonoyl-CoA carboxylase beta chain, mitochondrial
193	EZR	EZRI_HUMAN	Ezrin
194	ATP5C1	ATPG_HUMAN (+1)	ATP synthase subunit gamma, mitochondrial
195	HIBCH	HIBCH_HUMAN	3-hydroxyisobutyryl-CoA hydrolase, mitochondrial
196	DECR1	DECR_HUMAN (+1)	2,4-dienoyl-CoA reductase, mitochondrial
197	SLC25A10	DIC_HUMAN (+2)	Mitochondrial dicarboxylate carrier
198	ACTC1	ACTC_HUMAN	Actin, alpha cardiac muscle 1
199	NID2	NID2_HUMAN	Nidogen-2
200	SHMT1	GLYC_HUMAN	Serine hydroxymethyltransferase, cytosolic
201	ACAA1	THIK_HUMAN	3-ketoacyl-CoA thiolase, peroxisomal
202	CBR1	CBR1_HUMAN	Carbonyl reductase [NADPH] 1
203	VWA8	VWA8_HUMAN	von Willebrand factor A domain-containing protein 8
204	CLU	CLUS_HUMAN	Clusterin
205	ALDH1B1	AL1B1_HUMAN	Aldehyde dehydrogenase X, mitochondrial
206	MTCH2	MTCH2_HUMAN	Mitochondrial carrier homolog 2
207	PPIA	PPIA_HUMAN	Peptidyl-prolyl cis-trans isomerase A
208	TST	THTR_HUMAN	Thiosulfate sulfurtransferase
209	RPS27A	RS27A_HUMAN	Ubiquitin-40S ribosomal protein S27a
210	ACSM2B	ACS2B_HUMAN	Acyl-coenzyme A synthetase ACSM2B, mitochondrial
211	CA2	CAH2_HUMAN	Carbonic anhydrase 2
212	GSTK1	GSTK1_HUMAN	Glutathione S-transferase kappa 1
213	FH	FUMH_HUMAN	Fumarate hydratase, mitochondrial
214	PRDX3	PRDX3_HUMAN	Thioredoxin-dependent peroxide reductase, mitochondrial
215	DLST	ODO2_HUMAN (+1)	Dihydrolipoyllysine-residue succinyltransferase component of 2-oxoglutarate dehydrogenase complex, mitochondrial
216	VIL1	VILI_HUMAN	Villin-1
217	HADH	HCDH_HUMAN	Hydroxyacyl-coenzyme A dehydrogenase, mitochondrial
218	SOD2	SODM_HUMAN	Superoxide dismutase [Mn], mitochondrial
219	SARDH	SARDH_HUMAN	Sarcosine dehydrogenase, mitochondrial
220	IGK@	Q6PIL8_HUMAN (+2)	IGK@ protein



221	NDUFS2	NDUS2_HUMAN	NADH dehydrogenase [ubiquinone] iron-sulfur protein 2, mitochondrial
222	RPN1	RPN1_HUMAN	Dolichyl-diphosphooligosaccharide--protein glycosyltransferase subunit 1
223	DMGDH	M2GD_HUMAN	Dimethylglycine dehydrogenase, mitochondrial
224	MT-CO2	COX2_HUMAN	Cytochrome c oxidase subunit 2
225	SDHB	SDHB_HUMAN	Succinate dehydrogenase [ubiquinone] iron-sulfur subunit, mitochondrial
226	C5	CO5_HUMAN	Complement C5
227	SLC25A1	TXTP_HUMAN	Tricarboxylate transport protein, mitochondrial
228	ALDH9A1	AL9A1_HUMAN	4-trimethylaminobutyraldehyde dehydrogenase
229	EPHX1	HYEP_HUMAN	Epoxide hydrolase 1
230	HBB	HBB_HUMAN	Hemoglobin subunit beta
231	FLNB	FLNB_HUMAN	Filamin-B
232	ACO1	ACOC_HUMAN	Cytoplasmic aconitate hydratase
233	CPT2	CPT2_HUMAN	Carnitine O-palmitoyltransferase 2, mitochondrial
234	COL4A6	CO4A6_HUMAN	Collagen alpha-6(IV) chain
235	CANX	CALX_HUMAN	Calnexin
236	AKR1A1	AK1A1_HUMAN	Alcohol dehydrogenase [NADP(+)]
237	GRHPR	GRHPR_HUMAN	Glyoxylate reductase/hydroxypyruvate reductase
238	PCYOX1	PCYOX_HUMAN	Prenylcysteine oxidase 1
239	TUBB4B	TBB4B_HUMAN	Tubulin beta-4B chain
240	HSD17B10	HCD2_HUMAN (+1)	3-hydroxyacyl-CoA dehydrogenase type-2
241	HSP90AB1	HS90B_HUMAN	Heat shock protein HSP 90-beta
242	SLC9A3R1	NHRF1_HUMAN	Na(+)/H(+) exchange regulatory cofactor NHE-RF1
243	CTNNA1	CTNA1_HUMAN	Catenin alpha-1
244	TF	TRFE_HUMAN	Serotransferrin
245	GPI	G6PI_HUMAN	Glucose-6-phosphate isomerase
246	AOC3	AOC3_HUMAN	Membrane primary amine oxidase
247	SQRDL	SQRD_HUMAN	Sulfide:quinone oxidoreductase, mitochondrial
248	HSPE1	CH10_HUMAN	10 kDa heat shock protein, mitochondrial
249	C4B	CO4B_HUMAN	Complement C4-B
250	ITGB1	ITB1_HUMAN	Integrin beta-1
251	RPS3	RS3_HUMAN	40S ribosomal protein S3
252	NDUFA9	NDUA9_HUMAN	NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 9, mitochondrial
253	FBP1	F16P1_HUMAN	Fructose-1,6-bisphosphatase 1
254	ECI2	ECI2_HUMAN	Enoyl-CoA delta isomerase 2, mitochondrial
255	VWA1	VWA1_HUMAN	von Willebrand factor A domain-containing protein 1

256	LONP1	LONM_HUMAN	Lon protease homolog, mitochondrial
257	CTNND1	CTND1_HUMAN	Catenin delta-1
258	CTSD	CATD_HUMAN	Cathepsin D
259	DPT	DERM_HUMAN	Dermatopontin
260	AGMAT	SPEB_HUMAN	Agmatinase, mitochondrial
261	LMNB2	LMNB2_HUMAN	Lamin-B2
262	VCP	TERA_HUMAN	Transitional endoplasmic reticulum ATPase
263	EEF2	EF2_HUMAN	Elongation factor 2
264	PBLD	PBLD_HUMAN	Phenazine biosynthesis-like domain-containing protein
265	ACOX1	ACOX1_HUMAN	Peroxisomal acyl-coenzyme A oxidase 1
266	TRAP1	TRAP1_HUMAN	Heat shock protein 75 kDa, mitochondrial
267	AGXT2	AGT2_HUMAN	Alanine--glyoxylate aminotransferase 2, mitochondrial
268	FMO1	FMO1_HUMAN	Dimethylaniline monooxygenase [N-oxide-forming] 1
269	CTNNB1	CTNB1_HUMAN	Catenin beta-1
270	LUM	LUM_HUMAN	Lumican
271	NDUFA10	NDUAA_HUMAN	NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 10, mitochondrial
272	SLC3A2	4F2_HUMAN (+2)	4F2 cell-surface antigen heavy chain
273	ALDH3A2	AL3A2_HUMAN	Fatty aldehyde dehydrogenase
274	HSD11B2	DHI2_HUMAN	Corticosteroid 11-beta-dehydrogenase isozyme 2
275	DSP	DESP_HUMAN	Desmoplakin
276	MYO6	MYO6_HUMAN	Unconventional myosin-VI
277	FRAS1	FRAS1_HUMAN	Extracellular matrix protein FRAS1
278	C21orf33	ES1_HUMAN	ES1 protein homolog, mitochondrial
279	ATP1B1	AT1B1_HUMAN	Sodium/potassium-transporting ATPase subunit beta-1
280	SORD	DHSO_HUMAN	Sorbitol dehydrogenase
281	IARS2	SYIM_HUMAN	Isoleucine--tRNA ligase, mitochondrial
282	PDCD6IP	PDC6I_HUMAN	Programmed cell death 6-interacting protein
283	MCCC1	MCCA_HUMAN (+1)	Methylcrotonoyl-CoA carboxylase subunit alpha, mitochondrial
284	DLAT	ODP2_HUMAN	Dihydrolipoyllysine-residue acetyltransferase component of pyruvate dehydrogenase complex, mitochondrial
285	ALDOA	ALDOA_HUMAN	Fructose-bisphosphate aldolase A
286	DCN	PGS2_HUMAN	Decorin
287	CMA1	CMA1_HUMAN	Chymase
288	VCL	VINC_HUMAN	Vinculin
289	NAT8	NAT8_HUMAN	N-acetyltransferase 8
290	GGT1	GGT1_HUMAN	Gamma-glutamyltranspeptidase 1
291	MGST3	MGST3_HUMAN	Microsomal glutathione S-transferase 3
292	AQP1	AQP1_HUMAN	Aquaporin-1

293	PFKL	PFKAL_HUMAN	ATP-dependent 6-phosphofructokinase, liver type
294	FTCD	FTCD_HUMAN	Formimidoyltransferase-cyclodeaminase
295	DHRS4	DHRS4_HUMAN	Dehydrogenase/reductase SDR family member 4
296	CCT8	TCPQ_HUMAN	T-complex protein 1 subunit theta
297	GPD1	GPDA_HUMAN	Glycerol-3-phosphate dehydrogenase [NAD(+)], cytoplasmic
298	LAP3	AMPL_HUMAN	Cytosol aminopeptidase
299	HBA1	HBA_HUMAN	Hemoglobin subunit alpha
300	SLC25A6	ADT3_HUMAN	ADP/ATP translocase 3
301	AFG3L2	AFG32_HUMAN	AFG3-like protein 2
302	AKR1C3	AK1C3_HUMAN	Aldo-keto reductase family 1 member C3
303	C11orf54	CK054_HUMAN	Ester hydrolase C11orf54
304	ETFDH	ETFD_HUMAN	Electron transfer flavoprotein-ubiquinone oxidoreductase, mitochondrial
305	SUCLA2	SUCB1_HUMAN	Succinyl-CoA ligase [ADP-forming] subunit beta, mitochondrial
306	CALR	CALR_HUMAN	Calreticulin
307	PCK1	PCKGC_HUMAN	Phosphoenolpyruvate carboxykinase, cytosolic [GTP]
308	ATP5L	ATP5L_HUMAN	ATP synthase subunit g, mitochondrial
309	ATP6V1H	VATH_HUMAN	V-type proton ATPase subunit H
310	BCAM	BCAM_HUMAN (+5)	Basal cell adhesion molecule
311	SFXN2	SFXN2_HUMAN	Sideroflexin-2
312	PRDX6	PRDX6_HUMAN	Peroxiredoxin-6
313	MTHFD1	C1TC_HUMAN	C-1-tetrahydrofolate synthase, cytoplasmic
314	NPNT	NPNT_HUMAN	Nephronectin
315	NDUFS3	NDUS3_HUMAN	NADH dehydrogenase [ubiquinone] iron-sulfur protein 3, mitochondrial
316	ALDH1A1	AL1A1_HUMAN	Retinal dehydrogenase 1
317	HP1BP3	HP1B3_HUMAN	Heterochromatin protein 1-binding protein 3
318	VDAC3	VDAC3_HUMAN	Voltage-dependent anion-selective channel protein 3
319	CCT4	TCPD_HUMAN	T-complex protein 1 subunit delta
320	OCIAD2	OCAD2_HUMAN	OCIA domain-containing protein 2
321	LDHA	LDHA_HUMAN	L-lactate dehydrogenase A chain
322	HMGCL	HMGCL_HUMAN	Hydroxymethylglutaryl-CoA lyase, mitochondrial
323	NDUFA4	NDUA4_HUMAN	Cytochrome c oxidase subunit NDUFA4
324	AHCY	SAHH_HUMAN	Adenosylhomocysteinase
325	HNRNPA2B1	ROA2_HUMAN	Heterogeneous nuclear ribonucleoproteins A2/B1
326	HNRNPU	HNRPU_HUMAN	Heterogeneous nuclear ribonucleoprotein U
327	RPS4X	RS4X_HUMAN	40S ribosomal protein S4, X isoform
328	PTGR1	PTGR1_HUMAN	Prostaglandin reductase 1

329	TCP1	TCPA_HUMAN	T-complex protein 1 subunit alpha
330	C6	CO6_HUMAN	Complement component C6
331	PCBP1	PCBP1_HUMAN	Poly(rC)-binding protein 1
332	HSDL2	HSDL2_HUMAN	Hydroxysteroid dehydrogenase-like protein 2
333	MVP	MVP_HUMAN	Major vault protein
334	JUP	PLAK_HUMAN	Junction plakoglobin
335	TKT	TKT_HUMAN	Transketolase
336	RAB1A	RAB1A_HUMAN	Ras-related protein Rab-1A
337	HIBADH	3HIDH_HUMAN	3-hydroxyisobutyrate dehydrogenase, mitochondrial
338	EPHX2	HYES_HUMAN	Bifunctional epoxide hydrolase 2
339	PPIB	PPIB_HUMAN	Peptidyl-prolyl cis-trans isomerase B
340	RPS8	RS8_HUMAN	40S ribosomal protein S8
341	NIPSNAP1	NIPS1_HUMAN	Protein NipSnap homolog 1
342	MYO1C	MYO1C_HUMAN	Unconventional myosin-1c
343	CYB5R3	NB5R3_HUMAN	NADH-cytochrome b5 reductase 3
344	APCS	SAMP_HUMAN (+1)	Serum amyloid P-component
345	HOGA1	HOGA1_HUMAN	4-hydroxy-2-oxoglutarate aldolase, mitochondrial
346	LDHD	LDHD_HUMAN	Probable D-lactate dehydrogenase, mitochondrial
347	ADH1B	ADH1B_HUMAN	Alcohol dehydrogenase 1B
348	RTN4	RTN4_HUMAN	Reticulon-4
349	RAB14	RAB14_HUMAN	Ras-related protein Rab-14
350	CS	CISY_HUMAN	Citrate synthase, mitochondrial
351	KRT19	K1C19_HUMAN	Keratin, type I cytoskeletal 19
352	CYB5R1	NB5R1_HUMAN	NADH-cytochrome b5 reductase 1
353	UBA1	UBA1_HUMAN	Ubiquitin-like modifier-activating enzyme 1
354	CDH16	CAD16_HUMAN	Cadherin-16
355	H1F0	H10_HUMAN	Histone H1.0
356	HSPA1B	A0A0G2JIW1_HUMAN (+3)	Heat shock 70 kDa protein 1B
357	BBOX1	BODG_HUMAN	Gamma-butyrobetaine dioxygenase
358	SELENBP1	SBP1_HUMAN	Selenium-binding protein 1
359	UQCRFS1	UCRI_HUMAN	Cytochrome b-c1 complex subunit Rieske, mitochondrial
360	LETM1	LETM1_HUMAN	LETM1 and EF-hand domain-containing protein 1, mitochondrial
361	ANXA7	ANXA7_HUMAN	Annexin A7
362	CISD1	CISD1_HUMAN	CDGSH iron-sulfur domain-containing protein 1
363	CCT2	TCPB_HUMAN	T-complex protein 1 subunit beta
364	ENPEP	B0BCZ3_HUMAN	Glutamyl aminopeptidase (Aminopeptidase A)
365	AMBP	AMBP_HUMAN	Protein AMBP
366	GSTP1	GSTP1_HUMAN	Glutathione S-transferase P
367	SAMM50	SAM50_HUMAN	Sorting and assembly machinery

			component 50 homolog
368	GOT1	AATC_HUMAN	Aspartate aminotransferase, cytoplasmic
369	ACOT1	ACOT1_HUMAN (+1)	Acyl-coenzyme A thioesterase 1
370	PIGR	PIGR_HUMAN	Polymeric immunoglobulin receptor
371	IVD	IVD_HUMAN	Isovaleryl-CoA dehydrogenase, mitochondrial
372	IQGAP1	IQGA1_HUMAN	Ras GTPase-activating-like protein IQGAP1
373	ARF1	ARF1_HUMAN (+1)	ADP-ribosylation factor 1
374	RAB5C	RAB5C_HUMAN	Ras-related protein Rab-5C
375	EIF4A1	IF4A1_HUMAN	Eukaryotic initiation factor 4A-I
376	PIPOX	SOX_HUMAN	Peroxisomal sarcosine oxidase
377	LYZ	LYSC_HUMAN (+1)	Lysozyme C
378	CMBL	CMBL_HUMAN	Carboxymethylenebutenolidase homolog
379	HRSP12	UK114_HUMAN	Ribonuclease UK114
380	DDC	Q53Y41_HUMAN (+1)	Dopa decarboxylase (Aromatic L-amino acid decarboxylase)
381	ABCD3	ABCD3_HUMAN	ATP-binding cassette sub-family D member 3
382	CYC1	CY1_HUMAN	Cytochrome c1, heme protein, mitochondrial
383	DHX9	DHX9_HUMAN	ATP-dependent RNA helicase A
384	PFN1	PROF1_HUMAN	Profilin-1
385	GSN	GELS_HUMAN	Gelsolin
386	PDHB	ODPB_HUMAN	Pyruvate dehydrogenase E1 component subunit beta, mitochondrial
387	AP2A2	AP2A2_HUMAN	AP-2 complex subunit alpha-2
388	CLIC4	CLIC4_HUMAN	Chloride intracellular channel protein 4
389	HNRNPK	HNRPK_HUMAN	Heterogeneous nuclear ribonucleoprotein K
390	ATP6V0A1	VPP1_HUMAN	V-type proton ATPase 116 kDa subunit a isoform 1
391	SHMT2	GLYM_HUMAN	Serine hydroxymethyltransferase, mitochondrial
392	VAT1	VAT1_HUMAN	Synaptic vesicle membrane protein VAT-1 homolog
393	PDIA4	PDIA4_HUMAN	Protein disulfide-isomerase A4
394	MYH11	MYH11_HUMAN	Myosin-11
395	CPT1A	CPT1A_HUMAN	Carnitine O-palmitoyltransferase 1, liver isoform
396	RPL4	RL4_HUMAN	60S ribosomal protein L4
397	ACAD11	ACD11_HUMAN	Acyl-CoA dehydrogenase family member 11
398	PDHA1	ODPA_HUMAN	Pyruvate dehydrogenase E1 component subunit alpha, somatic form, mitochondrial
399	CCT3	TCPG_HUMAN	T-complex protein 1 subunit gamma
400	C7	CO7_HUMAN	Complement component C7
401	RPL12	RL12_HUMAN	60S ribosomal protein L12

402	RBP4	RET4_HUMAN	Retinol-binding protein 4
403	C8G	CO8G_HUMAN	Complement component C8 gamma chain
404	RAB2A	RAB2A_HUMAN	Ras-related protein Rab-2A
405	MUT	MUTA_HUMAN	Methylmalonyl-CoA mutase, mitochondrial
406	RAB7A	RAB7A_HUMAN	Ras-related protein Rab-7a
407	SLC4A4	S4A4_HUMAN	Electrogenic sodium bicarbonate cotransporter 1
408	ACSS3	ACSS3_HUMAN	Acyl-CoA synthetase short-chain family member 3, mitochondrial
409	ATP2A2	AT2A2_HUMAN	Sarcoplasmic/endoplasmic reticulum calcium ATPase 2
410	PGAM1	PGAM1_HUMAN	Phosphoglycerate mutase 1
411	GNB1	GBB1_HUMAN	Guanine nucleotide-binding protein G(I)/G(S)/G(T) subunit beta-1
412	ANXA11	ANX11_HUMAN	Annexin A11
413	ATP6V1E1	VATE1_HUMAN	V-type proton ATPase subunit E 1
414	TNC	TENA_HUMAN	Tenascin
415	ACSM3	ACSM3_HUMAN	Acyl-coenzyme A synthetase ACSM3, mitochondrial
416	COPA	COPA_HUMAN	Coatomer subunit alpha
417	RPL7	RL7_HUMAN	60S ribosomal protein L7
418	RPS16	RS16_HUMAN	40S ribosomal protein S16
419	SLC5A12	SC5AC_HUMAN	Sodium-coupled monocarboxylate transporter 2
420	CRAT	CACP_HUMAN	Carnitine O-acetyltransferase
421	NDUFA12	NDUAC_HUMAN	NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 12
422	ABHD10	ABHDA_HUMAN	Mycophenolic acid acyl-glucuronide esterase, mitochondrial
423	BDH2	BDH2_HUMAN	3-hydroxybutyrate dehydrogenase type 2
424	SERPINH1	SERPH_HUMAN	Serpin H1
425	ECI1	ECI1_HUMAN	Enoyl-CoA delta isomerase 1, mitochondrial
426	DPYS	DPYS_HUMAN	Dihydropyrimidinase
427	IDH1	IDHC_HUMAN	Isocitrate dehydrogenase [NADP] cytoplasmic
428	CCT7	TCPH_HUMAN	T-complex protein 1 subunit eta
429	PDIA6	PDIA6_HUMAN	Protein disulfide-isomerase A6
430	YWHAE	1433E_HUMAN	14-3-3 protein epsilon
431	QDPR	DHPR_HUMAN	Dihydropteridine reductase
432	LTF	TRFL_HUMAN	Lactotransferrin
433	ATP5I	ATP5I_HUMAN	ATP synthase subunit e, mitochondrial
434	ACOX2	ACOX2_HUMAN	Peroxisomal acyl-coenzyme A oxidase 2
435	ATP6V0D1	VA0D1_HUMAN	V-type proton ATPase subunit d 1
436	GDI2	GDIB_HUMAN	Rab GDP dissociation inhibitor beta
437	SLC27A2	S27A2_HUMAN	Very long-chain acyl-CoA synthetase
438	PRELP	PRELP_HUMAN (+1)	Prolargin

439	TIMP3	TIMP3_HUMAN	Metalloproteinase inhibitor 3
440	ILVBL	ILVBL_HUMAN	Acetolactate synthase-like protein
441	IGL@	Q8N355_HUMAN	IGL@ protein
442	SND1	SND1_HUMAN	Staphylococcal nuclease domain-containing protein 1
443	OPA1	OPA1_HUMAN	Dynamin-like 120 kDa protein, mitochondrial
444	CCT5	TCPE_HUMAN	T-complex protein 1 subunit epsilon
445	HYOU1	HYOU1_HUMAN	Hypoxia up-regulated protein 1
446	GLYATL1	GLYL1_HUMAN (+1)	Glycine N-acyltransferase-like protein 1
447	IDH3A	IDH3A_HUMAN	Isocitrate dehydrogenase [NAD] subunit alpha, mitochondrial
448	CNP	CN37_HUMAN	2',3'-cyclic-nucleotide 3'-phosphodiesterase
449	UGT2A3	UD2A3_HUMAN	UDP-glucuronosyltransferase 2A3
450	TUBA4A	TBA4A_HUMAN	Tubulin alpha-4A chain
451	AMACR	AMACR_HUMAN (+1)	Alpha-methylacyl-CoA racemase
452	SLC5A2	SC5A2_HUMAN	Sodium/glucose cotransporter 2
453	RAB11B	RB11B_HUMAN	Ras-related protein Rab-11B
454	CKAP4	CKAP4_HUMAN	Cytoskeleton-associated protein 4
455	NIT2	NIT2_HUMAN	Omega-amidase NIT2
456	CRYL1	CRYL1_HUMAN	Lambda-crystallin homolog
457	CLIC1	CLIC1_HUMAN (+2)	Chloride intracellular channel protein 1
458	BPHL	BPHL_HUMAN	Valacyclovir hydrolase
459	GNAI2	GNAI2_HUMAN	Guanine nucleotide-binding protein G(i) subunit alpha-2
460	CYP4A11	CP4AB_HUMAN	Cytochrome P450 4A11
461	AKR7A3	ARK73_HUMAN	Aflatoxin B1 aldehyde reductase member 3
462	METTL7A	MET7A_HUMAN (+2)	Methyltransferase-like protein 7A
463	MACROD1	MACD1_HUMAN	O-acetyl-ADP-ribose deacetylase MACROD1
464	HNRNPH2	HNRH2_HUMAN	Heterogeneous nuclear ribonucleoprotein H2
465	RPS2	RS2_HUMAN	40S ribosomal protein S2
466	BDH1	BDH_HUMAN	D-beta-hydroxybutyrate dehydrogenase, mitochondrial
467	ECHDC3	ECHD3_HUMAN	Enoyl-CoA hydratase domain-containing protein 3, mitochondrial
468	SERPINA3	AACT_HUMAN	Alpha-1-antichymotrypsin
469	RAP1A	RAP1A_HUMAN	Ras-related protein Rap-1A
470	TAGLN	TAGL_HUMAN	Transgelin
471	RPL3	RL3_HUMAN	60S ribosomal protein L3
472	WDR1	WDR1_HUMAN	WD repeat-containing protein 1
473	PEPD	PEPD_HUMAN	Xaa-Pro dipeptidase
474	ITGA1	ITA1_HUMAN	Integrin alpha-1
475	OGDHL	OGDHL_HUMAN	2-oxoglutarate dehydrogenase-like, mitochondrial
476	GGT5	GGT5_HUMAN	Gamma-glutamyltransferase 5

477	DBT	ODB2_HUMAN	Lipoamide acyltransferase component of branched-chain alpha-keto acid dehydrogenase complex, mitochondrial
478	-	B2R941_HUMAN	cDNA, FLJ94198, highly similar to Homo sapiens carboxypeptidase A3 (mast cell) (CPA3), mRNA
479	PNP	PNPH_HUMAN	Purine nucleoside phosphorylase
480	ANXA5	ANXA5_HUMAN	Annexin A5
481	OAT	OAT_HUMAN	Ornithine aminotransferase, mitochondrial
482	CYCS	CYC_HUMAN (+5)	Cytochrome c
483	USMG5	USMG5_HUMAN	Up-regulated during skeletal muscle growth protein 5
484	PRDX2	PRDX2_HUMAN	Peroxiredoxin-2
485	PGM1	PGM1_HUMAN	Phosphoglucomutase-1
486	RPS18	RS18_HUMAN	40S ribosomal protein S18
487	SFPQ	SFPQ_HUMAN	Splicing factor, proline- and glutamine-rich
488	RPS15A	RS15A_HUMAN (+1)	40S ribosomal protein S15a
489	ATP5H	ATP5H_HUMAN	ATP synthase subunit d, mitochondrial
490	RPLP0	RLA0_HUMAN	60S acidic ribosomal protein P0
491	KHK	KHK_HUMAN	Ketohexokinase
492	MDH1	MDHC_HUMAN (+1)	Malate dehydrogenase, cytoplasmic
493	DDOST	OST48_HUMAN	Dolichyl-diphosphooligosaccharide--protein glycosyltransferase 48 kDa subunit
494	ACE	ACE_HUMAN	Angiotensin-converting enzyme
495	EPB41L3	E41L3_HUMAN	Band 4.1-like protein 3
496	NDUFA13	NDUAD_HUMAN	NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 13
497	HAO2	HAOX2_HUMAN	Hydroxyacid oxidase 2
498	NME2	NDKB_HUMAN	Nucleoside diphosphate kinase B
499	CHCHD3	MIC19_HUMAN	MICOS complex subunit MIC19
500	NDUFS7	NDUS7_HUMAN	NADH dehydrogenase [ubiquinone] iron-sulfur protein 7, mitochondrial
501	RPL5	RL5_HUMAN	60S ribosomal protein L5
502	C8A	CO8A_HUMAN	Complement component C8 alpha chain
503	TOMM70A	TOM70_HUMAN	Mitochondrial import receptor subunit TOM70
504	NDUFB10	NDUBA_HUMAN	NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit 10
505	DNAJC11	DJC11_HUMAN	DnaJ homolog subfamily C member 11
506	TOP1	TOP1_HUMAN	DNA topoisomerase 1
507	DAK	A0A024R529_HUMAN	Dihydroxyacetone kinase 2 homolog (Yeast), isoform CRA_a
508	STOML2	STML2_HUMAN	Stomatin-like protein 2, mitochondrial
509	HKDC1	HKDC1_HUMAN	Putative hexokinase HKDC1
510	C8B	CO8B_HUMAN	Complement component C8 beta chain
511	YWHAB	1433B_HUMAN	14-3-3 protein beta/alpha
512	HPD	HPPD_HUMAN (+1)	4-hydroxyphenylpyruvate dioxygenase



513	GLDC	GCSP_HUMAN	Glycine dehydrogenase (decarboxylating), mitochondrial
514	NDUFA6	NDUA6_HUMAN	NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 6
515	NES	NEST_HUMAN (+1)	Nestin
516	RDH11	RDH11_HUMAN	Retinol dehydrogenase 11
517	TPP1	TPP1_HUMAN	Tripeptidyl-peptidase 1
518	DDAH1	DDAH1_HUMAN	N(G),N(G)-dimethylarginine dimethylaminohydrolase 1
519	ANK3	ANK3_HUMAN	Ankyrin-3
520	NDUFB9	NDUB9_HUMAN	NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit 9
521	CLEC18A	CL18A_HUMAN	C-type lectin domain family 18 member A
522	TFAM	TFAM_HUMAN	Transcription factor A, mitochondrial
523	HSD17B8	DHB8_HUMAN	Estradiol 17-beta-dehydrogenase 8
524	CYB5A	CYB5_HUMAN	Cytochrome b5
525	ACADS	ACADS_HUMAN	Short-chain specific acyl-CoA dehydrogenase, mitochondrial
526	ACAD8	ACAD8_HUMAN	Isobutyryl-CoA dehydrogenase, mitochondrial
527	EHD4	EHD4_HUMAN	EH domain-containing protein 4
528	CFHR1	FHR1_HUMAN	Complement factor H-related protein 1
529	BHMT2	BHMT2_HUMAN	S-methylmethionine--homocysteine S-methyltransferase BHMT2
530	ISOC2	ISOC2_HUMAN	Isochorismatase domain-containing protein 2, mitochondrial
531	GSTT1	GSTT1_HUMAN	Glutathione S-transferase theta-1
532	GLG1	GSLG1_HUMAN	Golgi apparatus protein 1
533	LACTB2	LACB2_HUMAN (+1)	Beta-lactamase-like protein 2
534	ACTN1	ACTN1_HUMAN	Alpha-actinin-1
535	SCP2	NLTP_HUMAN	Non-specific lipid-transfer protein
536	PHGDH	SERA_HUMAN	D-3-phosphoglycerate dehydrogenase
537	ALDH5A1	SSDH_HUMAN	Succinate-semialdehyde dehydrogenase, mitochondrial
538	PRDX5	PRDX5_HUMAN (+1)	Peroxiredoxin-5, mitochondrial
539	CES2	EST2_HUMAN	Cocaine esterase
540	ERLIN2	ERLN2_HUMAN	Erlin-2
541	FAH	FAAA_HUMAN	Fumarylacetoacetase
542	CTSB	CATB_HUMAN	Cathepsin B
543	AUH	AUHM_HUMAN	Methylglutaconyl-CoA hydratase, mitochondrial
544	DPYSL2	DPYL2_HUMAN	Dihydropyrimidinase-related protein 2
545	NDUFB4	NDUB4_HUMAN	NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit 4
546	RHOA	RHOA_HUMAN (+5)	Transforming protein RhoA
547	RPS3A	RS3A_HUMAN	40S ribosomal protein S3a
548	CD59	CD59_HUMAN	CD59 glycoprotein
549	POR	NCPR_HUMAN	NADPH--cytochrome P450 reductase
550	ABCB1	MDR1_HUMAN	Multidrug resistance protein 1

551	AASS	AASS_HUMAN	Alpha-aminoadipic semialdehyde synthase, mitochondrial
552	PARK7	PARK7_HUMAN	Protein DJ-1
553	COL15A1	COFA1_HUMAN (+1)	Collagen alpha-1(XV) chain
554	SLC25A4	ADT1_HUMAN	ADP/ATP translocase 1
555	CD81	CD81_HUMAN	CD81 antigen
556	FTL	FRIL_HUMAN	Ferritin light chain
557	AP2B1	AP2B1_HUMAN	AP-2 complex subunit beta
558	FABP1	FABPL_HUMAN (+2)	Fatty acid-binding protein, liver
559	AOX1	AOXA_HUMAN	Aldehyde oxidase
560	PPA2	IPYR2_HUMAN	Inorganic pyrophosphatase 2, mitochondrial
561	ACSF3	ACSF3_HUMAN	Acyl-CoA synthetase family member 3, mitochondrial
562	RPS9	RS9_HUMAN	40S ribosomal protein S9
563	CAP1	CAP1_HUMAN	Adenylyl cyclase-associated protein 1
564	RPN2	RPN2_HUMAN	Dolichyl-diphosphooligosaccharide--protein glycosyltransferase subunit 2
565	PSAT1	SERC_HUMAN	Phosphoserine aminotransferase
566	DARS2	SYDM_HUMAN (+2)	Aspartate--tRNA ligase, mitochondrial
567	XRCC6	XRCC6_HUMAN	X-ray repair cross-complementing protein 6
568	HIST1H2BJ	H2B1J_HUMAN	Histone H2B type 1-J
569	CLPX	CLPX_HUMAN	ATP-dependent Clp protease ATP-binding subunit clpX-like, mitochondrial
570	RPL9	RL9_HUMAN (+2)	60S ribosomal protein L9
571	RPS11	RS11_HUMAN	40S ribosomal protein S11
572	CAPN1	CAN1_HUMAN	Calpain-1 catalytic subunit
573	HLA-A	1A34_HUMAN	HLA class I histocompatibility antigen, A-34 alpha chain
574	DDX17	DDX17_HUMAN	Probable ATP-dependent RNA helicase DDX17
575	PGRMC1	PGRC1_HUMAN	Membrane-associated progesterone receptor component 1
576	MATN2	MATN2_HUMAN	Matrilin-2
577	CYP27A1	CP27A_HUMAN	Sterol 26-hydroxylase, mitochondrial
578	MECP2	MECP2_HUMAN	Methyl-CpG-binding protein 2
579	YWHAZ	1433Z_HUMAN	14-3-3 protein zeta/delta
580	MSRA	MSRA_HUMAN	Mitochondrial peptide methionine sulfoxide reductase
581	APOH	APOH_HUMAN	Beta-2-glycoprotein 1
582	HGD	HGD_HUMAN	Homogentisate 1,2-dioxygenase
583	HMGB1	HMGB1_HUMAN	High mobility group protein B1
584	BCAP31	BAP31_HUMAN	B-cell receptor-associated protein 31
585	GK	GLPK_HUMAN	Glycerol kinase
586	ITGA6	ITA6_HUMAN	Integrin alpha-6
587	EEF1G	EF1G_HUMAN (+1)	Elongation factor 1-gamma
588	OGN	MIME_HUMAN	Mimecan
589	H2AFY2	H2AW_HUMAN	Core histone macro-H2A.2

590	TUBA1C	TBA1C_HUMAN	Tubulin alpha-1C chain
591	RPS19	RS19_HUMAN	40S ribosomal protein S19
592	VPS35	VPS35_HUMAN	Vacuolar protein sorting-associated protein 35
593	GSTM3	GSTM3_HUMAN	Glutathione S-transferase Mu 3
594	PODXL	PODXL_HUMAN (+2)	Podocalyxin
595	GSR	GSHR_HUMAN (+1)	Glutathione reductase, mitochondrial
596	ACSS1	ACS2L_HUMAN (+1)	Acetyl-coenzyme A synthetase 2-like, mitochondrial
597	LGALS3	LEG3_HUMAN (+4)	Galectin-3
598	RPL7A	RL7A_HUMAN	60S ribosomal protein L7a
599	STOM	STOM_HUMAN	Erythrocyte band 7 integral membrane protein
600	GNB2	GBB2_HUMAN	Guanine nucleotide-binding protein G(I)/G(S)/G(T) subunit beta-2
601	RPS13	RS13_HUMAN	40S ribosomal protein S13
602	HPX	HEMO_HUMAN	Hemopexin
603	MGST1	MGST1_HUMAN	Microsomal glutathione S-transferase 1
604	PRKDC	PRKDC_HUMAN	DNA-dependent protein kinase catalytic subunit
605	COPB2	COPB2_HUMAN	Coatomer subunit beta'
606	LGALS1	LEG1_HUMAN	Galectin-1
607	ATP5J2	ATPK_HUMAN	ATP synthase subunit f, mitochondrial
608	CRYAA	CRYAA_HUMAN	Alpha-crystallin A chain
609	ATP6V1D	VATD_HUMAN (+2)	V-type proton ATPase subunit D
610	GCDH	GCDH_HUMAN	Glutaryl-CoA dehydrogenase, mitochondrial
611	TECR	TECR_HUMAN	Very-long-chain enoyl-CoA reductase
612	ABHD14B	ABHEB_HUMAN (+2)	Alpha/beta hydrolase domain-containing protein 14B
613	MPST	THTM_HUMAN	3-mercaptopyruvate sulfurtransferase
614	FECH	HEMH_HUMAN	Ferrochelatase, mitochondrial
615	FLOT1	FLOT1_HUMAN	Flotillin-1
616	ACTR3	ARP3_HUMAN	Actin-related protein 3
617	NDUFA8	NDUA8_HUMAN	NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 8
618	RARS	SYRC_HUMAN	Arginine--tRNA ligase, cytoplasmic
619	BCKDHA	ODBA_HUMAN	2-oxoisovalerate dehydrogenase subunit alpha, mitochondrial
620	CFL1	COF1_HUMAN	Cofilin-1
621	RAN	RAN_HUMAN	GTP-binding nuclear protein Ran
622	HP	HPT_HUMAN	Haptoglobin
623	RPL10	RL10_HUMAN	60S ribosomal protein L10
624	XRCC5	XRCC5_HUMAN	X-ray repair cross-complementing protein 5
625	RPL8	RL8_HUMAN	60S ribosomal protein L8
626	RPL13	RL13_HUMAN	60S ribosomal protein L13
627	CCT6A	TCPZ_HUMAN	T-complex protein 1 subunit zeta
628	LMAN1	LMAN1_HUMAN	Protein ERGIC-53

629	MATR3	MATR3_HUMAN	Matrin-3
630	ATP6V1C1	VATC1_HUMAN	V-type proton ATPase subunit C 1
631	KMO	KMO_HUMAN (+1)	Kynurenine 3-monooxygenase
632	SSBP1	SSBP_HUMAN	Single-stranded DNA-binding protein, mitochondrial
633	RBP5	RET5_HUMAN	Retinol-binding protein 5
634	RPS14	RS14_HUMAN	40S ribosomal protein S14
635	PECR	PECR_HUMAN	Peroxisomal trans-2-enoyl-CoA reductase
636	CA4	CAH4_HUMAN	Carbonic anhydrase 4
637	COX5B	COX5B_HUMAN	Cytochrome c oxidase subunit 5B, mitochondrial
638	XPNPEP2	XPP2_HUMAN	Xaa-Pro aminopeptidase 2
639	SLC25A12	CMC1_HUMAN	Calcium-binding mitochondrial carrier protein Aralar1
640	HDHD3	HDHD3_HUMAN	Haloacid dehalogenase-like hydrolase domain-containing protein 3
641	HLA-B	1B42_HUMAN	HLA class I histocompatibility antigen, B-42 alpha chain
642	COX6B1	CX6B1_HUMAN	Cytochrome c oxidase subunit 6B1
643	SERPINB6	SPB6_HUMAN	Serpin B6
644	RPL10A	RL10A_HUMAN	60S ribosomal protein L10a
645	RAB10	RAB10_HUMAN	Ras-related protein Rab-10
646	NAPA	SNAA_HUMAN	Alpha-soluble NSF attachment protein
647	RPL6	RL6_HUMAN (+4)	60S ribosomal protein L6
648	CLYBL	CLYBL_HUMAN	Citrate lyase subunit beta-like protein, mitochondrial
649	DNM2	DYN2_HUMAN	Dynammin-2
650	TXNDC5	TXND5_HUMAN	Thioredoxin domain-containing protein 5
651	FLOT2	FLOT2_HUMAN	Flotillin-2
652	SACM1L	SAC1_HUMAN	Phosphatidylinositide phosphatase SAC1
653	RPL18A	RL18A_HUMAN	60S ribosomal protein L18a
654	HSD17B11	DHB11_HUMAN	Estradiol 17-beta-dehydrogenase 11
655	GALM	GALM_HUMAN	Aldose 1-epimerase
656	IQGAP2	IQGA2_HUMAN	Ras GTPase-activating-like protein IQGAP2
657	HLA-DRB1	2B1D_HUMAN	HLA class II histocompatibility antigen, DRB1-13 beta chain
658	RAC1	RAC1_HUMAN (+1)	Ras-related C3 botulinum toxin substrate 1
659	PKLR	KPYR_HUMAN	Pyruvate kinase PKLR
660	NDUFB7	NDUB7_HUMAN	NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit 7
661	SFXN3	SFXN3_HUMAN	Sideroflexin-3
662	PLS3	PLST_HUMAN	Plastin-3
663	PTBP1	PTBP1_HUMAN	Polypyrimidine tract-binding protein 1
664	GAL3ST1	G3ST1_HUMAN	Galactosylceramide sulfotransferase
665	RPSA	RSSA_HUMAN	40S ribosomal protein SA
666	ECHDC2	ECHD2_HUMAN	Enoyl-CoA hydratase domain-containing

			protein 2, mitochondrial
667	HK1	HXK1_HUMAN	Hexokinase-1
668	TMED10	TMEDA_HUMAN	Transmembrane emp24 domain-containing protein 10
669	UGP2	UGPA_HUMAN	UTP--glucose-1-phosphate uridylyltransferase
670	UGDH	UGDH_HUMAN	UDP-glucose 6-dehydrogenase
671	ESYT1	ESYT1_HUMAN	Extended synaptotagmin-1
672	BLVRB	BLVRB_HUMAN	Flavin reductase (NADPH)
673	SNX2	SNX2_HUMAN	Sorting nexin-2
674	PRODH	PROD_HUMAN (+2)	Proline dehydrogenase 1, mitochondrial
675	AP2M1	AP2M1_HUMAN	AP-2 complex subunit mu
676	COASY	COASY_HUMAN	Bifunctional coenzyme A synthase
677	LRRC59	LRC59_HUMAN	Leucine-rich repeat-containing protein 59
678	PABPC1	PABP1_HUMAN	Polyadenylate-binding protein 1
679	ALDH18A1	P5CS_HUMAN	Delta-1-pyrroline-5-carboxylate synthase
680	H2AFV	H2AV_HUMAN (+1)	Histone H2A.V
681	UQCRB	QCR7_HUMAN	Cytochrome b-c1 complex subunit 7
682	RPL35	RL35_HUMAN	60S ribosomal protein L35
683	CAPZB	CAPZB_HUMAN	F-actin-capping protein subunit beta
684	RNH1	RINI_HUMAN	Ribonuclease inhibitor
685	HSPA12A	HS12A_HUMAN	Heat shock 70 kDa protein 12A
686	SLC12A1	S12A1_HUMAN	Solute carrier family 12 member 1
687	PARP1	PARP1_HUMAN	Poly [ADP-ribose] polymerase 1
688	TXNRD2	TRXR2_HUMAN	Thioredoxin reductase 2, mitochondrial
689	SLC3A1	SLC31_HUMAN (+2)	Neutral and basic amino acid transport protein rBAT
690	C1QBP	C1QBP_HUMAN	Complement component 1 Q subcomponent-binding protein, mitochondrial
691	DDX39B	DX39B_HUMAN (+1)	Spliceosome RNA helicase DDX39B
692	NAPSA	NAPSA_HUMAN	Napsin-A
693	FABP3	FABPH_HUMAN	Fatty acid-binding protein, heart
694	CBR4	CBR4_HUMAN	Carbonyl reductase family member 4
695	COX6C	COX6C_HUMAN	Cytochrome c oxidase subunit 6C
696	RDX	RADI_HUMAN	Radixin
697	MYOF	MYOF_HUMAN	Myoferlin
698	PSMA6	PSA6_HUMAN	Proteasome subunit alpha type-6
699	POLDIP2	PDIP2_HUMAN	Polymerase delta-interacting protein 2
700	BSG	BASI_HUMAN	Basigin
701	GNAS	GNAS1_HUMAN	Guanine nucleotide-binding protein G(s) subunit alpha isoforms XLas
702	DNAJA3	DNJA3_HUMAN	DnaJ homolog subfamily A member 3, mitochondrial
703	MYL12B	ML12B_HUMAN	Myosin regulatory light chain 12B
704	HLA-DRA	DRA_HUMAN (+5)	HLA class II histocompatibility antigen, DR alpha chain

705	NSF	NSF_HUMAN	Vesicle-fusing ATPase
706	INHBE	INHBE_HUMAN	Inhibin beta E chain
707	GNPDA1	GNPI1_HUMAN	Glucosamine-6-phosphate isomerase 1
708	ARHGAP1	RHG01_HUMAN	Rho GTPase-activating protein 1
709	ACAD9	ACAD9_HUMAN	Acyl-CoA dehydrogenase family member 9, mitochondrial
710	IGHG2	IGHG2_HUMAN	Ig gamma-2 chain C region
711	NONO	NONO_HUMAN	Non-POU domain-containing octamer-binding protein
712	NAPRT	PNCB_HUMAN	Nicotinate phosphoribosyltransferase
713	LTA4H	LKHA4_HUMAN	Leukotriene A-4 hydrolase
714	HSD17B12	DHB12_HUMAN	Estradiol 17-beta-dehydrogenase 12
715	FAM162A	F162A_HUMAN	Protein FAM162A
716	NDUFA7	NDUA7_HUMAN (+3)	NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 7
717	SLC25A20	MCAT_HUMAN	Mitochondrial carnitine/acylcarnitine carrier protein
718	-	B4E2A6_HUMAN	cDNA FLJ55508, highly similar to Sad1/unc-84-like protein 2
719	COPG1	COPG1_HUMAN	Coatomer subunit gamma-1
720	MYH14	MYH14_HUMAN	Myosin-14
721	FAHD1	FAHD1_HUMAN	Acylpyruvase FAHD1, mitochondrial
722	SLIRP	SLIRP_HUMAN	SRA stem-loop-interacting RNA-binding protein, mitochondrial
723	SCCPDH	SCPDL_HUMAN	Saccharopine dehydrogenase-like oxidoreductase
724	GDA	GUAD_HUMAN	Guanine deaminase
725	UGT1A6	UD16_HUMAN (+1)	UDP-glucuronosyltransferase 1-6
726	CGNL1	CGNL1_HUMAN	Cingulin-like protein 1
727	F9	FA9_HUMAN	Coagulation factor IX
728	UQCR10	QCR9_HUMAN	Cytochrome b-c1 complex subunit 9
729	GALK1	GALK1_HUMAN (+1)	Galactokinase
730	NDUFV2	NDUV2_HUMAN	NADH dehydrogenase [ubiquinone] flavoprotein 2, mitochondrial
731	DDX3X	DDX3X_HUMAN	ATP-dependent RNA helicase DDX3X
732	NDRG1	NDRG1_HUMAN (+2)	Protein NDRG1
733	ASL	ARLY_HUMAN	Argininosuccinate lyase
734	AK3	KAD3_HUMAN (+1)	GTP:AMP phosphotransferase AK3, mitochondrial
735	ARPC4	ARPC4_HUMAN	Actin-related protein 2/3 complex subunit 4
736	THY1	THY1_HUMAN (+4)	Thy-1 membrane glycoprotein
737	RPS6	RS6_HUMAN	40S ribosomal protein S6
738	DARS	SYDC_HUMAN	Aspartate--tRNA ligase, cytoplasmic
739	APOOL	MIC27_HUMAN	MICOS complex subunit MIC27
740	DHODH	PYRD_HUMAN	Dihydroorotate dehydrogenase (quinone), mitochondrial
741	MLYCD	DCMC_HUMAN	Malonyl-CoA decarboxylase, mitochondrial
742	ARPC1B	ARC1B_HUMAN	Actin-related protein 2/3 complex subunit

			1B
743	ESD	ESTD_HUMAN	S-formylglutathione hydrolase
744	GGH	GGH_HUMAN (+1)	Gamma-glutamyl hydrolase
745	ACE2	ACE2_HUMAN	Angiotensin-converting enzyme 2
746	TALDO1	TALDO_HUMAN	Transaldolase
747	NDUFC2	NDUC2_HUMAN	NADH dehydrogenase [ubiquinone] 1 subunit C2
748	COX5A	COX5A_HUMAN	Cytochrome c oxidase subunit 5A, mitochondrial
749	ILF3	ILF3_HUMAN	Interleukin enhancer-binding factor 3
750	H1FX	H1X_HUMAN	Histone H1x
751	HIST1H1B	H15_HUMAN	Histone H1.5
752	SUOX	SUOX_HUMAN (+2)	Sulfite oxidase, mitochondrial
753	RPL11	RL11_HUMAN	60S ribosomal protein L11
754	TUBB2A	TBB2A_HUMAN	Tubulin beta-2A chain
755	ALDH8A1	AL8A1_HUMAN	Aldehyde dehydrogenase family 8 member A1
756	TNS1	TENS1_HUMAN	Tensin-1
757	L2HGDH	L2HDH_HUMAN	L-2-hydroxyglutarate dehydrogenase, mitochondrial
758	FERMT2	FERM2_HUMAN	Fermitin family homolog 2
759	ATAD3A	ATD3A_HUMAN	ATPase family AAA domain-containing protein 3A
760	MLEC	MLEC_HUMAN (+1)	Malectin
761	MTX1	MTX1_HUMAN	Metaxin-1
762	SLC6A19	S6A19_HUMAN	Sodium-dependent neutral amino acid transporter B(0)AT1
763	GPD2	GPDM_HUMAN	Glycerol-3-phosphate dehydrogenase, mitochondrial
764	APOA4	APOA4_HUMAN	Apolipoprotein A-IV
765	FAM151A	F151A_HUMAN	Protein FAM151A
766	PRKCSH	GLU2B_HUMAN	Glucosidase 2 subunit beta
767	PURA	PURA_HUMAN	Transcriptional activator protein Pur-alpha
768	RAB21	RAB21_HUMAN	Ras-related protein Rab-21
769	MFGE8	MFGM_HUMAN (+3)	Lactadherin
770	SLC5A10	SC5AA_HUMAN	Sodium/glucose cotransporter 5
771	COQ9	COQ9_HUMAN (+1)	Ubiquinone biosynthesis protein COQ9, mitochondrial
772	MAT2A	METK2_HUMAN	S-adenosylmethionine synthase isoform type-2
773	VCAN	CSPG2_HUMAN	Versican core protein
774	NDUFB6	NDUB6_HUMAN	NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit 6
775	ABHD11	ABHDB_HUMAN	Alpha/beta hydrolase domain-containing protein 11
776	PAH	PH4H_HUMAN	Phenylalanine-4-hydroxylase
777	MPO	PERM_HUMAN	Myeloperoxidase
778	ERMP1	ERMP1_HUMAN	Endoplasmic reticulum metallopeptidase 1

779	COX7A2	CX7A2_HUMAN (+2)	Cytochrome c oxidase subunit 7A2, mitochondrial
780	YWHAQ	1433T_HUMAN	14-3-3 protein theta
781	NDUFS8	NDUS8_HUMAN	NADH dehydrogenase [ubiquinone] iron-sulfur protein 8, mitochondrial
782	RPL15	RL15_HUMAN (+1)	60S ribosomal protein L15
783	HNRNPR	HNRPR_HUMAN (+1)	Heterogeneous nuclear ribonucleoprotein R
784	THSD4	THSD4_HUMAN	Thrombospondin type-1 domain-containing protein 4
785	STX7	STX7_HUMAN	Syntaxin-7
786	PDZK1IP1	PDZ1I_HUMAN	PDZK1-interacting protein 1
787	ANXA1	ANXA1_HUMAN	Annexin A1
788	HNRNPUL2	HNRL2_HUMAN	Heterogeneous nuclear ribonucleoprotein U-like protein 2
789	IBA57	CAF17_HUMAN	Putative transferase CAF17, mitochondrial
790	CPQ	CBPQ_HUMAN	Carboxypeptidase Q
791	LMNB1	LMNB1_HUMAN	Lamin-B1
792	NQO2	NQO2_HUMAN	Ribosyldihydronicotinamide dehydrogenase [quinone]
793	TIMM44	TIM44_HUMAN	Mitochondrial import inner membrane translocase subunit TIM44
794	ACOT7	BACH_HUMAN	Cytosolic acyl coenzyme A thioester hydrolase
795	CAND1	CAND1_HUMAN	Cullin-associated NEDD8-dissociated protein 1
796	SLC23A1	S23A1_HUMAN (+1)	Solute carrier family 23 member 1
797	SEC22B	SC22B_HUMAN	Vesicle-trafficking protein SEC22b
798	RPL24	RL24_HUMAN (+1)	60S ribosomal protein L24
799	RPL21	RL21_HUMAN (+1)	60S ribosomal protein L21
800	RPS7	RS7_HUMAN	40S ribosomal protein S7
801	TTC38	TTC38_HUMAN	Tetratricopeptide repeat protein 38
802	NDUFA11	NDUAB_HUMAN	NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 11
803	SLC13A3	S13A3_HUMAN (+1)	Solute carrier family 13 member 3
804	GNA11	GNA11_HUMAN	Guanine nucleotide-binding protein subunit alpha-11
805	CALB1	CALB1_HUMAN	Calbindin
806	SERPINA5	IPSP_HUMAN (+1)	Plasma serine protease inhibitor
807	APOA1	APOA1_HUMAN	Apolipoprotein A-I
808	KRT7	K2C7_HUMAN	Keratin, type II cytoskeletal 7
809	ACSL4	ACSL4_HUMAN	Long-chain-fatty-acid--CoA ligase 4
810	DHTKD1	DHTK1_HUMAN	Probable 2-oxoglutarate dehydrogenase E1 component DHKTD1, mitochondrial
811	NDUFA5	NDUA5_HUMAN	NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 5
812	RPL30	RL30_HUMAN (+2)	60S ribosomal protein L30
813	RPL17	RL17_HUMAN (+5)	60S ribosomal protein L17
814	HEL-S-90n	V9HWJ5_HUMAN	Nicotinate-nucleotide



			pyrophosphorylase [carboxylating]
815	NDUFS5	NDUS5_HUMAN	NADH dehydrogenase [ubiquinone] iron-sulfur protein 5
816	SLC22A6	S22A6_HUMAN	Solute carrier family 22 member 6
817	LACTB	LACTB_HUMAN	Serine beta-lactamase-like protein LACTB, mitochondrial
818	CTSA	PPGB_HUMAN (+4)	Lysosomal protective protein
819	TIMM50	TIM50_HUMAN	Mitochondrial import inner membrane translocase subunit TIM50
820	RNPEP	AMPB_HUMAN	Aminopeptidase B
821	PLXNB2	PLXB2_HUMAN	Plexin-B2
822	CAPZA2	CAZA2_HUMAN	F-actin-capping protein subunit alpha-2
823	YWHAG	1433G_HUMAN	14-3-3 protein gamma
824	SEPT2	SEPT2_HUMAN	Septin-2
825	AMN	AMNLS_HUMAN	Protein amnionless
826	FARP1	FARP1_HUMAN	FERM, RhoGEF and pleckstrin domain-containing protein 1
827	SOD1	SODC_HUMAN	Superoxide dismutase [Cu-Zn]
828	HMGCS2	HMCS2_HUMAN	Hydroxymethylglutaryl-CoA synthase, mitochondrial
829	UGGT1	UGGG1_HUMAN	UDP-glucose:glycoprotein glucosyltransferase 1
830	TBRG4	TBRG4_HUMAN	Protein TBRG4
831	RPL19	RL19_HUMAN (+3)	60S ribosomal protein L19
832	GGACT	GGACT_HUMAN	Gamma-glutamylaminocyclotransferase
833	PEX11B	PX11B_HUMAN	Peroxisomal membrane protein 11B
834	PGRMC2	PGRC2_HUMAN	Membrane-associated progesterone receptor component 2
835	STAT3	STAT3_HUMAN	Signal transducer and activator of transcription 3
836	RPL23	RL23_HUMAN	60S ribosomal protein L23
837	RENBP	RENBP_HUMAN	N-acylglucosamine 2-epimerase
838	ADH5	ADHX_HUMAN	Alcohol dehydrogenase class-3
839	GSS	GSHB_HUMAN	Glutathione synthetase
840	SMIM24	SIM24_HUMAN	Small integral membrane protein 24
841	NDUFB5	NDUB5_HUMAN (+1)	NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit 5, mitochondrial
842	OCIAD1	OCAD1_HUMAN (+1)	OCIA domain-containing protein 1
843	ARHGDI1	GDIR1_HUMAN	Rho GDP-dissociation inhibitor 1
844	NUBPL	NUBPL_HUMAN	Iron-sulfur protein NUBPL
845	MIF	MIF_HUMAN	Macrophage migration inhibitory factor
846	DEFA1	DEF1_HUMAN (+2)	Neutrophil defensin 1
847	RPS5	RS5_HUMAN	40S ribosomal protein S5
848	SERPINC1	ANT3_HUMAN	Antithrombin-III
849	TMED9	TMED9_HUMAN	Transmembrane emp24 domain-containing protein 9
850	MPC2	MPC2_HUMAN (+3)	Mitochondrial pyruvate carrier 2
851	TMEM33	TMM33_HUMAN	Transmembrane protein 33

852	PFKM	PFKAM_HUMAN	ATP-dependent 6-phosphofructokinase, muscle type
853	APOD	C9JF17_HUMAN	Apolipoprotein D (Fragment)
854	PPP2R1A	2AAA_HUMAN	Serine/threonine-protein phosphatase 2A 65 kDa regulatory subunit A alpha isoform
855	PRKAR2A	KAP2_HUMAN	cAMP-dependent protein kinase type II-alpha regulatory subunit
856	RALA	RALA_HUMAN	Ras-related protein Ral-A
857	CTSG	CATG_HUMAN	Cathepsin G
858	NDUFB8	NDUB8_HUMAN	NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit 8, mitochondrial
859	SERPINB1	ILEU_HUMAN	Leukocyte elastase inhibitor
860	PDHX	ODPX_HUMAN	Pyruvate dehydrogenase protein X component, mitochondrial
861	AP1G1	AP1G1_HUMAN	AP-1 complex subunit gamma-1
862	NDUFA2	NDUA2_HUMAN	NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 2
863	SPTBN2	SPTN2_HUMAN	Spectrin beta chain, non-erythrocytic 2
864	SARS2	SYSM_HUMAN	Serine--tRNA ligase, mitochondrial
865	RRBP1	RRBP1_HUMAN (+2)	Ribosome-binding protein 1
866	VAPB	VAPB_HUMAN	Vesicle-associated membrane protein-associated protein B/C
867	TACO1	TACO1_HUMAN	Translational activator of cytochrome c oxidase 1
868	DEK	DEK_HUMAN	Protein DEK
869	MTX2	MTX2_HUMAN	Metaxin-2
870	COX7A2L	COX7R_HUMAN (+1)	Cytochrome c oxidase subunit 7A-related protein, mitochondrial
871	LYPLAL1	LYPL1_HUMAN	Lysophospholipase-like protein 1
872	RHOT2	MIRO2_HUMAN	Mitochondrial Rho GTPase 2
873	CCDC47	CCD47_HUMAN	Coiled-coil domain-containing protein 47
874	BCS1L	BCS1_HUMAN	Mitochondrial chaperone BCS1
875	ADD1	ADDA_HUMAN	Alpha-adducin
876	MTIF2	IF2M_HUMAN	Translation initiation factor IF-2, mitochondrial
877	ATP6V1B1	VATB1_HUMAN	V-type proton ATPase subunit B, kidney isoform
878	ATP6V1G1	VATG1_HUMAN	V-type proton ATPase subunit G 1
879	LMAN2	LMAN2_HUMAN	Vesicular integral-membrane protein VIP36
880	PSMD2	PSMD2_HUMAN	26S proteasome non-ATPase regulatory subunit 2
881	PDK2	PDK2_HUMAN	[Pyruvate dehydrogenase (acetyl-transferring)] kinase isozyme 2, mitochondrial
882	SLC7A8	LAT2_HUMAN	Large neutral amino acids transporter small subunit 2
883	STXBP2	STXB2_HUMAN	Syntaxin-binding protein 2
884	PPOX	PPOX_HUMAN	Protoporphyrinogen oxidase

885	NIPSNAP3A	NPS3A_HUMAN	Protein NipSnap homolog 3A
886	SPR	SPRE_HUMAN	Sepiapterin reductase
887	CASK	CSKP_HUMAN	Peripheral plasma membrane protein CASK
888	GNA13	GNA13_HUMAN	Guanine nucleotide-binding protein subunit alpha-13
889	MRPS36	RT36_HUMAN	28S ribosomal protein S36, mitochondrial
890	GBE1	GLGB_HUMAN	1,4-alpha-glucan-branching enzyme
891	SBSPON	SBSP0_HUMAN	Somatomedin-B and thrombospondin type-1 domain-containing protein
892	VAMP3	VAMP3_HUMAN	Vesicle-associated membrane protein 3
893	SYPL1	SYPL1_HUMAN	Synaptophysin-like protein 1
894	SPP2	SPP24_HUMAN	Secreted phosphoprotein 24
895	TTR	TTHY_HUMAN (+2)	Transthyretin
896	DDX5	DDX5_HUMAN	Probable ATP-dependent RNA helicase DDX5
897	PSMA7	PSA7_HUMAN	Proteasome subunit alpha type-7
898	PTGES2	PGES2_HUMAN	Prostaglandin E synthase 2
899	OXCT1	SCOT1_HUMAN	Succinyl-CoA:3-ketoacid coenzyme A transferase 1, mitochondrial
900	MARS	SYMC_HUMAN	Methionine--tRNA ligase, cytoplasmic
901	EEF1D	EF1D_HUMAN	Elongation factor 1-delta
902	NOMO2	NOMO2_HUMAN (+1)	Nodal modulator 2
903	HSPA4	HSP74_HUMAN	Heat shock 70 kDa protein 4
904	NIT1	NIT1_HUMAN	Nitrilase homolog 1
905	ATP2B4	AT2B4_HUMAN	Plasma membrane calcium-transporting ATPase 4
906	DAO	OXDA_HUMAN	D-amino-acid oxidase
907	DDX1	DDX1_HUMAN	ATP-dependent RNA helicase DDX1
908	GNAI3	GNAI3_HUMAN	Guanine nucleotide-binding protein G(k) subunit alpha
909	SRPRB	SRPRB_HUMAN	Signal recognition particle receptor subunit beta
910	UNC84A	A4D2Q0_HUMAN	Unc-84 homolog A (C. elegans)
911	RETSAT	RETST_HUMAN	All-trans-retinol 13,14-reductase
912	PGD	6PGD_HUMAN	6-phosphogluconate dehydrogenase, decarboxylating
913	SCAMP2	SCAM2_HUMAN (+2)	Secretory carrier-associated membrane protein 2
914	FN3K	FN3K_HUMAN	Fructosamine-3-kinase
915	COMTD1	CMTD1_HUMAN	Catechol O-methyltransferase domain-containing protein 1
916	PSMB5	PSB5_HUMAN	Proteasome subunit beta type-5
917	ATIC	PUR9_HUMAN	Bifunctional purine biosynthesis protein PURH
918	PSMD3	PSMD3_HUMAN	26S proteasome non-ATPase regulatory subunit 3
919	ENTPD5	ENTP5_HUMAN	Ectonucleoside triphosphate diphosphohydrolase 5

920	APEH	ACPH_HUMAN	Acylamino-acid-releasing enzyme
921	ADAM10	ADA10_HUMAN	Disintegrin and metalloproteinase domain-containing protein 10
922	NARS	SYNC_HUMAN	Asparagine--tRNA ligase, cytoplasmic
923	HIST2H2AB	H2A2B_HUMAN	Histone H2A type 2-B
924	SLC22A8	S22A8_HUMAN	Solute carrier family 22 member 8
925	PSMA3	PSA3_HUMAN	Proteasome subunit alpha type-3
926	CTSH	CATH_HUMAN (+2)	Pro-cathepsin H
927	MOGS	MOGS_HUMAN	Mannosyl-oligosaccharide glucosidase
928	GPX1	GPX1_HUMAN	Glutathione peroxidase 1
929	IDH3B	IDH3B_HUMAN	Isocitrate dehydrogenase [NAD] subunit beta, mitochondrial
930	PMPCB	MPPB_HUMAN	Mitochondrial-processing peptidase subunit beta
931	ERP44	ERP44_HUMAN	Endoplasmic reticulum resident protein 44
932	AEBP1	AEBP1_HUMAN	Adipocyte enhancer-binding protein 1
933	NPEPPS	PSA_HUMAN	Puromycin-sensitive aminopeptidase
934	SCO1	SCO1_HUMAN	Protein SCO1 homolog, mitochondrial
935	AP2A1	AP2A1_HUMAN	AP-2 complex subunit alpha-1
936	ADCK3	ADCK3_HUMAN	Chaperone activity of bc1 complex-like, mitochondrial
937	HNRNPUL1	HNRL1_HUMAN	Heterogeneous nuclear ribonucleoprotein U-like protein 1
938	HNRNPD	HNRPD_HUMAN (+3)	Heterogeneous nuclear ribonucleoprotein D0
939	NCLN	NCLN_HUMAN	Nicalin
940	TXNDC17	TXD17_HUMAN	Thioredoxin domain-containing protein 17
941	GALE	GALE_HUMAN	UDP-glucose 4-epimerase
942	USO1	USO1_HUMAN	General vesicular transport factor p115
943	SYNJ2BP	SYJ2B_HUMAN	Synaptojanin-2-binding protein
944	KIF5B	KINH_HUMAN	Kinesin-1 heavy chain
945	SRSF3	SRSF3_HUMAN	Serine/arginine-rich splicing factor 3
946	SDHC	C560_HUMAN (+2)	Succinate dehydrogenase cytochrome b560 subunit, mitochondrial
947	CADM4	CADM4_HUMAN	Cell adhesion molecule 4
948	DDT	DOPD_HUMAN (+1)	D-dopachrome decarboxylase
949	TM9SF4	TM9S4_HUMAN	Transmembrane 9 superfamily member 4
950	PYGB	PYGB_HUMAN	Glycogen phosphorylase, brain form
951	AARS2	SYAM_HUMAN	Alanine--tRNA ligase, mitochondrial
952	KTN1	KTN1_HUMAN	Kinectin
953	CKMT2	KCRS_HUMAN	Creatine kinase S-type, mitochondrial
954	RAB18	RAB18_HUMAN	Ras-related protein Rab-18
955	GSTO1	GSTO1_HUMAN	Glutathione S-transferase omega-1
956	FREM1	FREM1_HUMAN	FRAS1-related extracellular matrix protein 1
957	ARPC1A	ARC1A_HUMAN	Actin-related protein 2/3 complex subunit 1A

958	MAPK1	MK01_HUMAN	Mitogen-activated protein kinase 1
959	BCAT2	BCAT2_HUMAN	Branched-chain-amino-acid aminotransferase, mitochondrial
960	GHDC	GHDC_HUMAN (+1)	GH3 domain-containing protein
961	ADD3	ADDG_HUMAN	Gamma-adducin
962	CRIP2	CRIP2_HUMAN	Cysteine-rich protein 2
963	PSMA4	PSA4_HUMAN	Proteasome subunit alpha type-4
964	ACAD10	ACD10_HUMAN	Acyl-CoA dehydrogenase family member 10
965	DHRS7	DHRS7_HUMAN	Dehydrogenase/reductase SDR family member 7
966	AARS	SYAC_HUMAN	Alanine--tRNA ligase, cytoplasmic
967	THBS1	TSP1_HUMAN	Thrombospondin-1
968	TMEM205	TM205_HUMAN (+2)	Transmembrane protein 205
969	FMO4	FMO4_HUMAN	Dimethylaniline monooxygenase [N-oxide-forming] 4
970	DYSF	DYSF_HUMAN	Dysferlin
971	TMED4	TMED4_HUMAN	Transmembrane emp24 domain-containing protein 4
972	CLPTM1	CLPT1_HUMAN	Cleft lip and palate transmembrane protein 1
973	VAPA	VAPA_HUMAN	Vesicle-associated membrane protein-associated protein A
974	GLB1	BGAL_HUMAN	Beta-galactosidase
975	RHOT1	MIRO1_HUMAN	Mitochondrial Rho GTPase 1
976	GTF2I	GTF2I_HUMAN	General transcription factor II-I
977	NME3	NDK3_HUMAN	Nucleoside diphosphate kinase 3
978	DSTN	DEST_HUMAN	Destrin
979	TARDBP	TADBP_HUMAN	TAR DNA-binding protein 43
980	PSMC6	PRS10_HUMAN	26S protease regulatory subunit 10B
981	CMPK1	KCY_HUMAN	UMP-CMP kinase
982	RPL27	RL27_HUMAN (+3)	60S ribosomal protein L27
983	MYLK	MYLK_HUMAN	Myosin light chain kinase, smooth muscle
984	SLC36A2	S36A2_HUMAN	Proton-coupled amino acid transporter 2
985	EPCAM	EPCAM_HUMAN	Epithelial cell adhesion molecule
986	SNX3	SNX3_HUMAN	Sorting nexin-3
987	RDH13	RDH13_HUMAN (+1)	Retinol dehydrogenase 13
988	CYB5B	CYB5B_HUMAN	Cytochrome b5 type B
989	COA3	COA3_HUMAN (+1)	Cytochrome c oxidase assembly factor 3 homolog, mitochondrial
990	SCIN	ADSV_HUMAN	Adseverin
991	NFS1	NFS1_HUMAN	Cysteine desulfurase, mitochondrial
992	MRPL13	RM13_HUMAN	39S ribosomal protein L13, mitochondrial
993	EMC1	EMC1_HUMAN	ER membrane protein complex subunit 1
994	RTCB	RTCB_HUMAN	tRNA-splicing ligase RtcB homolog
995	MCU	MCU_HUMAN	Calcium uniporter protein, mitochondrial
996	RDH14	RDH14_HUMAN	Retinol dehydrogenase 14

997	DNAJC13	DJC13_HUMAN (+1)	DnaJ homolog subfamily C member 13
998	ETHE1	ETHE1_HUMAN (+1)	Persulfide dioxygenase ETHE1, mitochondrial
999	RPL22	RL22_HUMAN	60S ribosomal protein L22
1000	RPS29	RS29_HUMAN (+4)	40S ribosomal protein S29
1001	VAMP8	VAMP8_HUMAN (+1)	Vesicle-associated membrane protein 8
1002	ASPDH	ASPD_HUMAN	Putative L-aspartate dehydrogenase
1003	ERP29	ERP29_HUMAN (+1)	Endoplasmic reticulum resident protein 29
1004	NOP56	NOP56_HUMAN	Nucleolar protein 56
1005	GPT	ALAT1_HUMAN	Alanine aminotransferase 1
1006	PMVK	PMVK_HUMAN	Phosphomevalonate kinase
1007	PSMA1	PSA1_HUMAN	Proteasome subunit alpha type-1
1008	CORO1B	COR1B_HUMAN	Coronin-1B
1009	EIF2S3	IF2G_HUMAN	Eukaryotic translation initiation factor 2 subunit 3
1010	APEX1	APEX1_HUMAN	DNA-(apurinic or apyrimidinic site) lyase
1011	PRPF8	PRP8_HUMAN	Pre-mRNA-processing-splicing factor 8
1012	SLC2A2	GTR2_HUMAN	Solute carrier family 2, facilitated glucose transporter member 2
1013	SRP14	SRP14_HUMAN	Signal recognition particle 14 kDa protein
1014	FAM213A	F213A_HUMAN	Redox-regulatory protein FAM213A
1015	BCKDK	BCKD_HUMAN	[3-methyl-2-oxobutanoate dehydrogenase [lipoamide]] kinase, mitochondrial
1016	PPP2CA	PP2AA_HUMAN (+1)	Serine/threonine-protein phosphatase 2A catalytic subunit alpha isoform
1017	MYO1B	MYO1B_HUMAN	Unconventional myosin-Ib
1018	NDUFS4	NDUS4_HUMAN	NADH dehydrogenase [ubiquinone] iron-sulfur protein 4, mitochondrial
1019	PTPLAD1	HACD3_HUMAN	Very-long-chain (3R)-3-hydroxyacyl-CoA dehydratase 3
1020	ORM1	A1AG1_HUMAN (+1)	Alpha-1-acid glycoprotein 1
1021	NUP210	PO210_HUMAN	Nuclear pore membrane glycoprotein 210
1022	SARS	SYSC_HUMAN	Serine--tRNA ligase, cytoplasmic
1023	PSIP1	PSIP1_HUMAN	PC4 and SFRS1-interacting protein
1024	SLC4A1	B3AT_HUMAN (+3)	Band 3 anion transport protein
1025	RAB29	RAB7L_HUMAN (+2)	Ras-related protein Rab-7L1
1026	ILF2	ILF2_HUMAN (+3)	Interleukin enhancer-binding factor 2
1027	DNAJA1	DNJA1_HUMAN	DnaJ homolog subfamily A member 1
1028	TOR1AIP1	TOIP1_HUMAN	Torsin-1A-interacting protein 1
1029	PSMD11	PSD11_HUMAN	26S proteasome non-ATPase regulatory subunit 11
1030	C19orf52	CS052_HUMAN	Uncharacterized protein C19orf52
1031	TMX1	TMX1_HUMAN	Thioredoxin-related transmembrane protein 1
1032	LAMA4	A0A0A0MQS9_HUMAN (+3)	Laminin subunit alpha-4
1033	GLYCK	GLCTK_HUMAN	Glycerate kinase

1034	RUVBL1	RUVB1_HUMAN	RuvB-like 1
1035	PHYH	PAHX_HUMAN (+1)	Phytanoyl-CoA dioxxygenase, peroxisomal
1036	DHRS7B	DRS7B_HUMAN	Dehydrogenase/reductase SDR family member 7B
1037	EIF3B	EIF3B_HUMAN	Eukaryotic translation initiation factor 3 subunit B
1038	TMED7	TMED7_HUMAN (+1)	Transmembrane emp24 domain-containing protein 7
1039	ME2	MAOM_HUMAN	NAD-dependent malic enzyme, mitochondrial
1040	CA12	CAH12_HUMAN	Carbonic anhydrase 12
1041	SNRPD1	SMD1_HUMAN	Small nuclear ribonucleoprotein Sm D1
1042	MIPEP	MIPEP_HUMAN	Mitochondrial intermediate peptidase
1043	SEC23A	SC23A_HUMAN	Protein transport protein Sec23A
1044	BCL2L13	B2L13_HUMAN	Bcl-2-like protein 13
1045	OTUB1	OTUB1_HUMAN	Ubiquitin thioesterase OTUB1
1046	REEP6	REEP6_HUMAN	Receptor expression-enhancing protein 6
1047	YES1	YES_HUMAN	Tyrosine-protein kinase Yes
1048	CLINT1	EPN4_HUMAN	Clathrin interactor 1
1049	MFN2	MFN2_HUMAN	Mitofusin-2
1050	GDI1	GDIA_HUMAN	Rab GDP dissociation inhibitor alpha
1051	ARL2	ARL2_HUMAN	ADP-ribosylation factor-like protein 2
1052	HEXB	HEXB_HUMAN (+1)	Beta-hexosaminidase subunit beta
1053	NOSTRIN	NOSTN_HUMAN	Nostrin
1054	ABHD16A	ABHGA_HUMAN	Abhydrolase domain-containing protein 16A
1055	LAMA1	LAMA1_HUMAN	Laminin subunit alpha-1
1056	OSBP	OSBP1_HUMAN	Oxysterol-binding protein 1
1057	CFB	CFAB_HUMAN	Complement factor B
1058	SAT2	SAT2_HUMAN (+1)	Diamine acetyltransferase 2
1059	PDP1	PDP1_HUMAN	[Pyruvate dehydrogenase [acetyl-transferring]]-phosphatase 1, mitochondrial
1060	GARS	SYG_HUMAN	Glycine--tRNA ligase
1061	CHCHD6	J3QTA6_HUMAN	MICOS complex subunit
1062	DLG1	DLG1_HUMAN	Disks large homolog 1
1063	SLC13A2	S13A2_HUMAN (+2)	Solute carrier family 13 member 2
1064	GRSF1	GRSF1_HUMAN	G-rich sequence factor 1
1065	MIA2	G3V599_HUMAN	Uncharacterized protein
1066	WARS	SYWC_HUMAN	Tryptophan--tRNA ligase, cytoplasmic
1067	CSRP1	CSRP1_HUMAN (+1)	Cysteine and glycine-rich protein 1
1068	ERO1L	ERO1A_HUMAN	ERO1-like protein alpha
1069	FKBP2	FKBP2_HUMAN	Peptidyl-prolyl cis-trans isomerase FKBP2
1070	RAB8A	RAB8A_HUMAN	Ras-related protein Rab-8A
1071	ITIH5	ITIH5_HUMAN	Inter-alpha-trypsin inhibitor heavy chain H5

1072	HMOX1	HMOX1_HUMAN (+3)	Heme oxygenase 1
1073	RPS23	RS23_HUMAN (+10)	40S ribosomal protein S23
1074	ARCN1	COPD_HUMAN (+3)	Coatomer subunit delta
1075	HIST1H1A	H11_HUMAN	Histone H1.1
1076	-	D7RF68_HUMAN	AGTRAP-BRAF fusion protein
1077	GMPR2	GMPR2_HUMAN	GMP reductase 2
1078	TIMM9	TIM9_HUMAN (+1)	Mitochondrial import inner membrane translocase subunit Tim9
1079	GCSH	GCSH_HUMAN (+3)	Glycine cleavage system H protein, mitochondrial
1080	PPP1R7	PP1R7_HUMAN	Protein phosphatase 1 regulatory subunit 7
1081	C2orf47	CB047_HUMAN (+4)	Uncharacterized protein C2orf47, mitochondrial
1082	SORT1	SORT_HUMAN (+1)	Sortilin



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