

spot id.	protein short name	protein full name	prot acc N° (uniprot)	Mw	unique peptides	sequence coverage	peptides identified (truncated)
protein quality control & degradation (q)							
q1a	psb3 ac.	Proteasome beta 3 subunit	Q9R1P1	22966	8	51%	DAVSGMGVIVHVIEK - FGIQAQMVTTDFQK - FGPY
q1b	psb3 bas	Proteasome beta 3 subunit	Q9R1P1	22966	8	50%	DAVSGMGVIVHVIEKDK - FGIQAQMVTTDFQK - FG
q2a	sae1 ac	SUMO-activating enzyme subunit 1	Q9R1T2	38620	2	7%	AQNLNPMVDVK - VSQGVEDGPEAK
q2b	sae1 bas	SUMO-activating enzyme subunit 1	Q9R1T2	38620	16	60%	AQNLNPMVDVK - DPPHNNFFFDGMK - EALEVDW
q3	psd13	Proteasome regulatory subunit 13	Q9WVJ2	42810	18	57%	CAWGGQPDLAANEAQLLR - DLPVSEQQER - DVPAI
q4	brcc3	Lys63-deubiquitinase brcc36	P46737	36151	3	13%	FTYTGTGEMR - VCLESAVELPK - VEISPEQLSAASTE/
q5	ube2n	Ubiquitin conjugating enzyme 2N	P61088	17139	9	72%	ICLDILK - ICLDILKDK - LELFLPEEYPMAAPK - LLA
q6	psd10	Proteasome regulatory subunit 10	Q9Z2X2	25084	10	52%	ASTNIQDTEGNTPLHLACDEER - DHYDATAMHR - F
q7	psmd8	Proteasome regulatory subunit 8	Q9CX56	39932	5	20%	GWVLGPNNYYSFASQQQKPEDSTIPSTELAK - HPVS
q8	psme2	Proteasome activator complex subunit 2	P97372	27058	16	72%	AFYAELYHISSNLEK - ALVHERDEAAYGALR - AMV
q9	prs7	Proteasome regulatory subunit 7	P46471	48636	21	51%	ACLIFFFDEIDAIGGAR - ALDEGDIALLK - EVVETPLL
q10	psb4	Proteasome beta 4 subunit	P99026	29117	8	49%	AIHSWLTR - FDGGVVIAADMLGSYGSLAR - FQIATV
protein production & folding (f)							
f1	if2b	Translation initiation factor 2 subunit 2	Q99L45	38093	27	75%	CSVASIK - DASDDLDDLNFFNQK - DDGISFSSQTAW
f2	dnjc9	DnaJ homolog subfamily C member 9	Q91WN1	30042	3	9%	GSEELNDIK - ELGLEEGVDNLK
				30060	4	15%	ELGLEEGVDNLK - GSEELNDIK - ISLEDIQAFEK - (
f3	tcpz	T-complex protein 1 subunit zeta	P80317	57958	10	23%	ALQFLEQVK - AQAALAVNISAAAR - AQLGVQAFADA
f4	ppie	Peptidyl-prolyl cis-trans isomerase E	Q9QZH3	33450	6	24%	EEEGPEPPK - EEEGPEPPKAEAQEGEPTAK - HVVFG
f5a*	hyou1 ac	Hypoxia up-regulated protein 1	Q9JKR6	111183	28	36%	AANSLEAFIFETQDK - AEPPLNASAGDQEEK - AHFN
f5b	hyou1 med	Hypoxia up-regulated protein 1	Q9JKR6	111 183,1	36	47%	AANSLEAFIFETQDK - AEPPLNASAGDQEEK - AHFN
f5c	hyou1 bas	Hypoxia up-regulated protein 1	Q9JKR6	111 183,1	30	42%	AANSLEAFIFETQDK - AEPPLNASAGDQEEK - AHFN
homeostasis (h)							
h1	frih	Ferritin heavy chain	P09528	21067	6	36%	ELGDHVTNLR - IFLQDIK - MGAPEAGMAEYLFDK -
h2*	fril	Ferritin light chain	P29391	20803	4	27%	ALFQDVQKPSQDEWVK - LLEFQNDR - MGNHLTNL
h3a	blvra ac	Biliverdin reductase A	Q9CY64	33525	13	51%	DLKDPHSSAFLNLIGYVSR - ELGSLDNVR - FGFPAF
h3b*	blvra bas	Biliverdin reductase A	Q9CY64	33525	14	59%	DLKDPHSSAFLNLIGYVSR - ELGSLDNVR - FGFPAF
h4	blvrb	Biliverdin reductase B	Q923D2	22197	5	31%	IAIFGATGR - LPSEGPQAHVVVGDVGR - LQDVTDDF
h5	nmr1	NmrA-like family domain-containing protein 1	Q8K2T1	34377	16	57%	ALLEDGTFR - AQTLDQWLEQHK - DIGVPMTSVR - I
h6	pddc1	Parkinson disease 7 domain-containing protein 1	Q8BFQ8	23278	3	19%	LESIDGAR - LPLIVEDFVK - YHALLIPSCPGALTDLA
h7	txd12	Thioredoxin domain-containing protein 12	Q9CQU0	19049	6	43%	DEDFSPDGGYIPR - EAAASGLPLMVIHKK - ILFLDPS
h8	prdx1ox	Peroxiredoxin 1, oxidized form	P35700	22263	2	11%	QITINDLPVGR - TIAQDYGVVK
				22160	3	18%	ADEGISFR - QITINDLPVGR - QGGLGPMNIPLISDPK
h9	lgul	Lactoylgutathione lyase	Q9CPU0	20811	9	54%	DFLQQTMLR - FEELGVK - FSLYFLAYEDKNDIPK -
energy & lipid metabolism (e)							
e1a	idhc ac	Isocitrate dehydrogenase, cytoplasmic	O88844	46676	16	46%	ALEDVCIETIEAGFMTK - ATDFVVPGPVK - CATITPE
e1b*	idhc bas	Isocitrate dehydrogenase, cytoplasmic	O88844	46676	13	37%	AKLDNNTLSFFAK - ALEDVCIETIEAGFMTK - CAT
e2	pfkal	6-phosphofructokinase, liver type	P12382	85361	24	40%	AIGVLTSGGDAQGMNAAVR - AMDEERFDEAIQLR -

e3a	galK ac	Galactose kinase	Q9R0N0	42295	13	33%	AFMEEFGAEPPELAVSAPGR - GYALLIDCR - HSLGSS
e3b*	galK bas	Galactose kinase	Q9R0N0	42295	15	51%	AEHSFAGVPCGIMDQLIALLGQK - AFMEEFGAEPPEL
e4	pipnb	Phosphatidylinositol transfer protein beta isoform	P53811	31487	7	31%	ELANTPDCPR - IFTNLHR - MEDETQKELETMR - ML
e5	fpfs bas	Farnesyl pyrophosphate synthase	Q920E5	40583	11	30%	ALYEALDLQSAFFK - CSWLWVQCLLR - ELGHPEIGI
DNA metabolism and repair (d)							
d1a	pcna ac	Proliferating cell nuclear antigen	P17918	28786	13	66%	AEDNADTLALVFEAPNQEK - ATPLSPTVTLSMSADV
d1b	pcna bas	Proliferating cell nuclear antigen	P17918	28786	11	54%	AEDNADTLALVFEAPNQEK - ATPLSPTVTLSMSADV
d2	rfc2	Replication factor C subunit 2	Q9WUK4	38726	22	68%	ALLGPALKDAVLELNASNDR - DAVLELNASNDR - E
d3	dnph1	2'-deoxynucleoside 5'-phosphate N-hydrolase 1	Q80VJ3	18977	4	29%	EDQALYSR - FQVWDYAEVEVETMLHR - GGREDQA
d4	tatd3	Putative deoxyribonuclease TATDN3	Q3U1C6	32437	6	28%	DLDVALPIIEK - IMQLSER - LLAIGEVLDFTPR - NE
d5	rfa2	Replication protein A 32 kDa subunit	Q62193	29718	2	9%	APTNIIVYK - IGDVEISQVTIVGIIR
RNA and nucleotide metabolism (r)							
r1	tsnax	Translin-associated protein X	Q9QZE7	32927	5	20%	AVTTGLQEYVEAVSFQHFIIK - DASLSSPVMLAFK - S
r2	sarnp	SAP domain-containing ribonucleoprotein	Q9D1J3	23533	5	28%	FGISSVPTK - FGIVTSSAGTGTEDTEAK - FGLNVSS
r3	osgep	Probable tRNA N6-adenosine threonylcarbamoyltransferase	Q8BWU5	36301	8	31%	DGTVLANPR - EALIVGGVGCNLR - GAQLFATDER -
r4	bt3L4	Transcription factor BTF3 homolog 4	Q9CQH7	17315	4	23%	DDGTVIHFNNPK - KLAEQFPR - LAEQFPR - LAVNNI
r5a	strap ac	Serine-threonine kinase receptor-associated protein	Q9Z1Z2	38443	16	65%	AATAAADFTAK - CVLPEEDSGELAKPK - EFLVAGGI
r5b*	strap bas	Serine-threonine kinase receptor-associated protein	Q9Z1Z2	38443	20	70%	AATAAADFTAK - ALWCSDDK - ALWCSDDKQILSAE
r6a	prps1 a	Ribose-phosphate pyrophosphokinase 1	Q9D7G0	34835	12	53%	ENISEWR - FSNQETCVEIGESVR - IFSGSSHQDLSQK
r6b	prps1 b	Ribose-phosphate pyrophosphokinase 1	Q9D7G0	34835	9	31%	FSNQETCVEIGESVR - IFSGSSHQDLSQK - INNACFE
r7	pihd1	PIH1 domain-containing protein 1	Q9WTM5	51114	13	34%	AAGVVLEMIR - ALESDFMAPVLIMATNR - AVLIAGQI
r8	bpnt1	3'(2'),5'-bisphosphate nucleotidase 1	Q9Z0S1	33197	12	45%	ASAYVFASPGCK - CVIAEGDLGIVQK - HMNSAGVL
r9	adk	adenosine kinase	P55264	40150	2	7%	ELFDELVK - VFTLNLSAPFISQFFK
cytoskeleton (c)							
c1	caza2	F-actin-capping protein subunit alpha-2	P47754	32967	6	29%	DIQDSLTVSNEVQTAK - FTVTPSTTQVVGILK - IVEA
c2	rhoA	Transforming protein RhoA	Q9QUI0	21768	13	79%	DGVREVFEMATR - DLRNDEHTR - DQFPEVYVPTVF
c3	rab14	Ras-related protein Rab-14	Q91V41	23898	16	82%	ADLEAQR - FMADCPHTIGVEFGTR - GAAGALMVY
c4	twf1	Twinfilin-1	Q91YR1	40081	18	53%	DAFQALEK - EDVSLHGYK - EDVSLHGYKK - EFGG
c5	cof1 1PO4	cofilin-1, monophosphorylated form	P18760	18560	8	57%	AVLFCLSEDKK - EILVGDVVGQTVDDPYTTFVK - HEI
c6a	lsp1 ac	Lymphocyte-specific protein 1	P19973	36714	8	38%	EEDEEEAAR - EPDPEDAVGGSGEAEEHLIR - LQQYT
c6b	lsp1 bas	Lymphocyte-specific protein 1	P19973	36714	11	49%	CEEQEELHAEDSEGLTTQWR - EEDEEEAAR - EPDPI
c7	twf2 ac	Twinfilin-2	Q9Z0P5	39472	20	63%	AVLPLLDAQEPCYLLFR - DDLSLAGYQK - DELFGT
c8	rras	Ras-related protein R-Ras	P10833	23764	9	52%	AGNGFLLVFAINDR - ICTVDGIPAR - KYQEQLPPSP
mitochondria (m)							
m1a	sucb2 ac	Succinate-CoA ligase [GDP-forming] subunit beta, mitochondrial	Q9Z2I8	46841	2	5%	AQILAGGR - LEGTNVQEAQNILK
m1b	sucb2 bas	Succinate-CoA ligase [GDP-forming] subunit beta, mitochondrial	Q9Z2I8	46841	8	24%	ETYLAILMDR - FVANTAK - INFDDNAEFR - LEGTN
m2	coq9	Ubiquinone biosynthesis protein COQ9, mitochondrial	Q8K1Z0	35083	2	6%	LNQVLEEEQK - LVQLGQAEK
m3	mtx2	Metaxin-2	O88441	29758	14	60%	AIGWGNK - AKGHSLSDLGLDEVQK - ANAEYMSPSG
m4a	phb ac.	Prohibitin	P67778	29821	14	74%	AAELIANSLATAGDGLIELR - AATFGLLDDVSLTHLJ
m4b	phb	Prohibitin	P67778	29821	12	53%	AAIISAEGDSK - DLQNVNITLR - EFTEAVEAK - FDA
m5	eftu	Elongation factor Tu, mitochondrial	Q8BFR5	49509	10	25%	AEAGDNLGALVR - DLDKPFLLPVESVYSIPGR - EHL
m6	thtm	3-mercaptopyruvate sulfurtransferase	Q99J99	33023	5	24%	ALVSAQWVAEALK - AQPEHIIEGR - DGIEPGHIPGS

m7	htra2	Serine protease HTRA2, mitochondrial	Q9JIY5	49349	4	11%	AGLRPGDVILAIGEK - LAQNAEDVYEAVR - NSWFG
m8	hmgCL	Hydroxymethylglutaryl-CoA lyase, mitochondrial	P38060	34238	8	30%	EVSVFGAVSELFTR - FAGVMQAAQAASISVR - FPGI
m9	acatl	Long-chain specific acyl-CoA dehydrogenase, mitochondrial	P51174	47909	16	37%	AFVDSCLQLHETK - AQDTAELFFEDVR - AQDTAELI
m10	vdac2	Voltage-dependent anion-selective channel protein 2	Q60930	31621	5	22%	LTFDTTFSPNTGK - LTLALVDGK - SCSGVEFSTSGS
m11	odp2 ac	Dihydrolipoyllysine-residue acetyltransferase component of pyruvate dehydrogenase complex, mitochondrial	Q8BMF4	67943	17	33%	AAPAAAAAMAPPGPR - DIDSFVPSK - DVPLGAPLCI
m12a	fkbp4 ac	Peptidyl-prolyl cis-trans isomerase FKBP4	P30416	51573	6	14%	ALELDSNNEK - LQAFSAAIESCNK - LYANMFER - TC
m12b	fkbp4 med	Peptidyl-prolyl cis-trans isomerase FKBP4	P30416	51573	23	61%	AEVAAGDHPTDAEMK - AEVAAGDHPTDAEMKGER
m12c*	fkbp4 bas	Peptidyl-prolyl cis-trans isomerase FKBP4	P30416	51573	25	62%	AEVAAGDHPTDAEMK - AEVAAGDHPTDAEMKGER
lysosome & vesicles (L)							
L1	catZ	Cathepsin Z	Q9WUU7	33978	4	15%	7GSLSGR - NVNGVNYASVTR - HGIPDETeNNYQAK
L2	snap23	Synaptosomal-associated protein 23	O09044	23262	2	11%	IEEGMDQINK - ILGLAIESQDAGIK
L3	snx6 ac.	Sorting nexin 6	Q6P8X1	46650	18	41%	DVDDFFEHER - EKLEDFEK - IGSSLYALGTQDSTDIC
L4	ssrd	Translocon-associated protein subunit delta	Q62186	18937	5	37%	FFDEESYSLLR - NNEDVSIHPLFTVSVDHR - SAHAG
L5	vps25	Vacuolar protein-sorting-associated protein 25	Q9CQ80	20748	7	42%	AEIITVSDGR - ALQALQEQHK - AMSFEWPWQYR - C
L6a	anxa4 ac	Annexin A4	P97429	35918	12	46%	AASGFNATEDAQTLR - AEIDMLDIR - DEGNYLDDA
L6b	anxa4 bas	Annexin A4	P97429	35918	17	52%	AASGFNATEDAQTLR - AASGFNATEDAQTLRK - AE
L7	snf8	Vacuolar-sorting protein SNF8	Q9CZ28	28865	5	24%	FAQDVSQDDLIR - GTVLAEDQLAQMSK - NGGLITLI
L8	nsf1c	NSFL1 cofactor p47	Q9CZ44	40710	11	39%	DLIHDQDEEEEEEGQR - EANLLNAVIVQR - EFAVAV
Signalling (s)							
s1	cab39 ac	Calcium-binding protein 39	Q06138	39871	3	8%	LLGELLLDR - TEDEQFNDEK - VEVANPNK
s2	gbb1	Guanine nucleotide-binding protein G(I)/G(S)/G(T) subunit beta-1	P62874	37378	7	24%	ACADATLSQITNNIDPVGR - AGVLAGHDNR - KACA
s3	ppp1ca	Serine/threonine-protein phosphatase PP1-alpha catalytic subunit	P62137	37514	10	39%	AHQVVEDGYEFFAK - EIFLSQPILLELEAPLK - GNHI
s4	14-3-3 eps	14-3-3 protein epsilon	P62259	29175	16	55%	AASDIAMTELPPTHPIR - DNLTLTWTSMDQGDGEEQN
s5	mk14	Mitogen-activated protein kinase 14	P47811	41289	3	9%	LVGTPGAELLK - NYIQSLAQMPK - YIHSADIHR
s6	arl3	ADP-ribosylation factor-like protein 3	Q9WUL7	20487	11	69%	FEETGQELTELEEEK - ILLLGLDNAGK - LNVWDIG
s7	gbb2	Guanine nucleotide-binding protein G(I)/G(S)/G(T) subunit beta-2	P62880	37332	11	51%	ACGDSTLTQITAGLDPVGR - ADQELLMYSHDNIICGI
s8	pde6d	Retinal rod rhodopsin-sensitive cGMP 3',5'-cyclic phosphodiesterase subunit delta	O55057	17348	3	29%	ELNFSSAEQMEK - FFDDDLLVSTSK - ILWQGTEDLS
s9	cpped	Serine/threonine-protein phosphatase CPPED1	Q8BFS6	35248	3	9%	AVFSGHYHR - LTEQAVEAINK - TLDAFSSEK
s10a	ptpn6 ac	Tyrosine-protein phosphatase non-receptor type 6	P29351	67560	7	13%	DLSGPDAAETLLK - GQSEYGNITYPPAVR - KLEIIQS
s10b*	ptpn6 bas	Tyrosine-protein phosphatase non-receptor type 6	P29351	67560	7	13%	DLSGPDAAETLLK - GQSEYGNITYPPAVR - KLEIIQS
s11	ctbp1	C-terminal-binding protein 1	O88712	47535	2	4%	VGQAVALLR - VQSVEQIR
cell death control (a)							
a1a	bid ac.	BH3-interacting domain death agonist	P70444	21952	4	31%	HLAQIGDEMHNIIQPTLVR - IEPDSESQEEIHNAR -
a1b	bid bas.	BH3-interacting domain death agonist	P70444	21952	8	52%	AMLIMTMLLAK - DVFHHTVNFINQNLFSYVR - HLA
a2b	Casp 3 bas	Caspase-3	P70677	31476	3	11%	EDILELMDSVSK - LFIIQACR - SGTDVDAANLR
a2a	casp3 mod	Caspase-3	P70677	31476	10	48%	EDILELMDSVSK - ETFMGLK - IPVEADFLYAYSTAPC
inflammation (i)							
i1	in35	Interferon-induced 35 kDa protein homolog	Q9D8C4	31875	7	30%	FVVSNLK - IPFSVPEVPLVFQGGQTK - LQELQQLK - V
i2	anxa1	Annexin A1	P10107	38736	19	54%	AAYLQENGKPLDEVLR - AAYLQENGKPLDEVLRK -
i3	myd88	Myeloid differentiation primary response protein MyD88	P22366	33754	8	27%	DFPSILR - ELETRPDPTR - LLELLALLDR - LSLFLNPI

i4	caspl	Caspase-1	P29452	45642	9	25%	DSEEDFLTDAIFEDDGIKK - FSFEQPEFR - GSLFIESL
miscellaneous (u)							
u1	mtna	Methylthioribose-1-phosphate isomerase	Q9CQT1	39411	5	14%	AGAGGPGLAALVAFVR - DLGQVAAQEAER - FAEDM
u2	cryl1	Lambda-crystallin homolog	Q99KP3	35209	4	12%	EIDGFVLNR - IFAQLDR - LQYAVISEAWR - VPDDPEI
u3	ppac	Low molecular weight phosphotyrosine protein phosphatase	Q9D358	18192	3	24%	IDSAATSTYEVGNPPDYR - IELLSYDPQK - SPIAEA
u4a	clic4 ac	Chloride intracellular channel protein 4	Q9QYB1	28731	15	71%	AGSDGESIGNCPFSQR - DEFTNTCPSDKEVEIAYSDV
u4b	clic4 bas	Chloride intracellular channel protein 4	Q9QYB1	28731	26	91%	AGSDGESIGNCPFSQR - DEFTNTCPSDK - DEFTNTCI
u5	lhpp	Phospholysine phosphohistidine inorganic pyrophosphate phosphatase	Q9D715	29144	10	71%	AFQVLMELNPVLISLGK - ALEYACGIK - ELVGVLQ
u6	amrp	Alpha-2-macroglobulin receptor-associated protein	P55302	42217	16	43%	AEEGYENLLSPSDMAHIK - DAQMVHSNALNEDTQI
u7	mat2b	Methionine adenosyltransferase 2 subunit beta	Q99LB6	37392	3	14%	LETLGIGQR - RPDVVESQPDAASQLNVGASGNLAK
u9	fa49b	Protein FAM49B	Q921M7	36749	11	41%	AWGAVVPLVGK - DAEGILEDLQSYR - DQPPNSVEG
u10	cdc42	Cell division control protein 42 homolog	P60766	21259	4	27%	CVVVGDGAVGK - NVFDEAILAALPEPEPK - TCLLIS
u11	spre	Sepiapterin reductase	Q64105	27884	7	29%	ALAPQLAR - EELGAQQPDLK - ELPRPEGLQR - LLLI

YTEPVIAGLDPK - IFPMGDR - LNLyelk - LYIGLAGLATDVQTVaQR - NCVAIAADR - QIKPYTLMSMVANLLYEk
:PYYTEPVIAGLDPK - GKNCVAIAADR - LNLyelk - LYIGLAGLATDVQTVaQR - NCVAIAADR - QIKPYTLMSMVANLLYEkR

/SGEK - EEAGGGGGGGISEEEAAQYDR - FdAVCLtCCSR - FFTGDVfGYHGyTFANLGEHEfVEEK - GLTMLDHEQVSPEDPGAQFLIQTSVGR - GSGIVECLGPQ - KPESFFTK - LDSSETTMVK - NDVfDS
FLQSSQSSPGQAaVWHR - ETIEDVEEMLNnLPgVtSVHSR - FLGCVDIK - GSIDEVDKR - LEELYTK - LEELYTKK - LELWCTDVk - LNIGDLQATK - LYENfISEfEHR - QLTfEEIAK - QMTDPNVALTFLE
AER

.EPVPGIK - LLAEPVPGIKAEPDESNaR - TNEAQAIETAR - TVLLSIQALLSAPNPDDPLANDVAEQWK - WSPALQIR - YFHVVIAGPQDSPFEGGTFK
LVTQGASIIYENK - FLVTQGASIIYENKEEK - GAHVNAVnQNGCTPLHYAASK - GGLGLILKR - LDELKER - MVHILLfYK - NRHEIAVMLEGGANPDaK - TPLQVAK

:LEQYLMEGSYNK - ILFAEATR - LKLVLLELNLfPTTGK - LVLLELNLfPTTGK

'LDLR - APLDIPDPppK - APLDIPDPppKdDEMETDK - ASKdTHVMDYR - CILVITWIQHLIPK - DEAAyGALR - DTHVMDYR - IEDGNDFGVAIQEK - IISLSQLLEDsLNVADLSSLR - KIISLSQLLEDs
HPER - FDDGAGGDNEVQR - FVNlGIEppK - FVNlGIEppKGVLLfGPPGTGK - FVVdLSdQVAPTdIEEGMR - GVLLfGPPGTGK - IINADSEDPK - IINADSEDPKYIINVK - INELTGIK - KIEfSLPDLEGR - L
'/TEK - GVEIEGPLSAQTNWDIAHMISGfE - QPVLSQTEAR - QVLGQMVIDEELLGDGHsYSPr - TQNPMTGTsVLGVK - VNDSTMLGASGDYADFQYLK

AGSER - DEALEDEDSK - DVDADEEDSR - DYTYEELLNR - EKNPDMVAGEK - EVEPEPTEEK - EVEPEPTEEKDVDADEEDSR - EYVTCHTCR - FPEEDEILEK - FPEEDEILEKDEALEDEDSK - FVMKPPQV

QAYLDFK

llLIIPK - GIDPFSLDALAK - GLVLdHGAR - IITEGFEEAAK - SETDTSLIR - TEVNSGfFYK - VCGDSDKGFVVINQK - VLAQNSGFDLQETLVK

EVTEGLDVLR - SDVVPMTAENFR - SNPQVYMDIK - VLYVGGLAEEVDDK

lLDESGVLSLDR - DAVIYPILVEfTR - DEPAEQGELK - EAGMQPQLQIR - EEAEPpAEETSQPPpSEPK - EEEEEPGLR - EVQYLLNK - FLGDSAAGMAIK - FPEHELIVDPQR - LCQGLfFR - LEELTLR - LFNEC

lLDESGVLSLDR - AVGKEELGK - DAVITVPAffNQaER - DEPAEQGELKEEAEPpAEETSQPPpSEPK - EAGMQPQLQIR - FLGDSAAGMAIK - FPEHELIVDPQR - KLCQGLfFR - KTPVTVTLK - KYPDYESK -

lLDESGVLSLDR - DAVITVPAffNQaER - DAVIYPILVEfTR - DKLAELR - EAGMQPQLQIR - EEEEEPGLR - FLGDSAAGMAIK - KYPDYESK - LEELTLR - LGNTISSLFGGGTSSDAK - LIPEMDQVFTEVEM

.QNYHQDAEAaINR - SVNQSLELHK - YFLHQSHeer

R - NLNQALLDLHALGSAR

SGISR - FGVVVVGvGR - FTASPLEEEKfGFPafSGISR - KFGVVVVGVGR - LLGQVSAEDLAAEK - MTVQLETQNK - NIFLKDQDIFIQK - QISLEDALR - SGSLEEVpNVGVNK - SPLSWIEEK - SQEVDVAYI

SGISR - FGVVVVGvGR - FTASPLEEEKfGFPafSGISR - HVLVEYPMALSFAAAQELWELAAQK - KFGVVVVGVGR - LLGQVSAEDLAAEKK - MTVQLETQNK - NIFLKDQDIFIQK - RELGSLDNVR - SPLSV

IIR - NIVTAMK - TGLTTLAQAVQAGYEVTVLVR

fYTLKpDR - GEVEEYfR - HTAEeYAALLSK - KLVVVfGATGAQGGsVAR - LAAGHfDGKGEVEEYfR - LGfQAQDLANMfR - LGLHYVVYSGLENIR - LGLHYVVYSGLENIRK - LLADLAK - LPCYfENI

SSGLAR

GK - SWCGACK - VRPEIINESGNPSYK - YfYVSAEQVVQGMK

.GfGHIGIAVPDVYSACK - GLAFIQDPDGyWIEILNPnk - LDFPAMK - SLDFYTR - TAWTFsR - VLGLTLLQK

DEK - FKdIFQEIYDK - GQETSTNPiASIFAWsR - GWPLYLSTK - IIWELIK - LDNNTELSFFAK - LIDDMVAQAMK - LILPYVELDLHSYDLGIENR - LVTGWVKPIIIGR - NILGGTVfR - SDYLNtFEfMDK - SEI

ITPDEK - DAAEAiKK - FKdIFQEIYDK - HAYGDQYR - KIQGGsVVEMQGDEMTR - LDNNTELSFFAK - LIDDMVAQAMK - SDYLNtFEfMDK - SIEDFAHSSfQMALSK - VEITYTPK - VTymVHDfEEGGG

AMLWVSEK - ANVEHMTEK - EQWWLNLR - ETDfEHR - fDEAIQLR - GGTPsAFDR - GQVQEVGWHDVAGWLGR - HGKPISSsYVK - IMEVIDAIITTAQSHQR - ISMADYVSGELEHVTR - LNIIIAEGAIID

EYPVR - HVVSEIR - LAVLITNSNVR - LMVESHYSLR - MEELEAGR - QCEEVAQALGK - RAFMEEFGAEPPELAVSAPGR - SLETSLVPLSDPK - TAQAAAAMSR - TDGLVSLTTTSK - VEELLAEAR
AVSAPGR - GYALLIDCR - HSLGSSEYPVR - HVVSEIRR - LAVLITNSNVR - LQFPLPSAQWSLEPGIPQWANYVK - MEELEAGR - QCEEVAQALGK - RAFMEEFGAEPPELAVSAPGR - SLETSLVPLSDPK - TAC
APEGSLVFHEK - NEPYENDGEK - SQVEPADYK - VVLPCSVQEYQVGGQLYSVAEASK
JAIAR - EVLEYNALGGK - GLTVVQAFQELVEPK - LDAYNQEK - LKEVLEYNALGGK - QILEENYQK - QILEENYQKDPEK - VGTDIQDNK - YEEDSYNR

PLVVEYK - DLSHIGDAVVISCAK - FSASGELGNGNIK - IADMGHK - LIQGSILK - LIQGSILK - LMDLDVEQLGIPEQEYSCVIK - LSQTSNVDKEEEAVTIEMNEPVHLTFALR - MPSGEFAR - NLAMGVNL
PLVVEYK - CAGNEDIITLR - FSASGELGNGNIK - IADMGHK - LIQGSILK - LMDLDVEQLGIPEQEYSCVIK - MPSGEFAR - NLAMGVNLTSMSK - SEGFDTYR - VSDYEMK
GNVPNIHAGPPGTGK - EIGYTHMK - EKVPYTDGGLAEIIFTAQGDMR - EMIQHCVDANIDEAYK - FALACNASDK - FALACNASDKIIEPIQSR - IIEPIQSR - IILDEADSMTDGAQQALR - LMNVIEK - LMNV
LYSR - QADVVAEVTQPSLGVGYELGR
PCNISIAAEFIAQVK - QLPLSSICLETDSPALGPEK - YAGTDEEKEEQR

FQQELDAR - SLISMEEINK - TIFLLHR
ISR - FNVPSVLESK - ITSGIPQTER
GPGMGAPLASVAVVAR - ISNDPSPGYNIEQMAK - PAVLGFEGSANK - TPLKDSAITQR - TYVTAPGTGFLPGDTR
IAGIEEVNMIK
DFK - FSPDGELYASGEDGTLR - GAVWGATLNK - IGFETAEEEEIEIASENSSDSIYSSTPEVK - IYDLNKPEAEPK - LWDHATMTEVK - LWQTVVVGK - QGDTGDWIGTFLGHK - QILSADDK - SFEAPATINS/
DK - CVLPEEDSGELAKPK - EFLVAGGEDFK - FSPDGELYASGEDGTLR - GAVWGATLNK - GHFGPIHCVR - IGFETAEEEEIEIASENSSDSIYSSTPEVK - IYDLNKPEAEPK - LWDHATMTEVK - LWQTVVVG
- INNACFEAVVVTNTIPQEDK - IQVIDISMILAEAIR - LNVDFALIHK - MVLVGDVK - NCTIVSPDAGGAK - THNGESVSYLFHSHVPL - VAILVDDMADTCGTICHAADK - VTAVIPCFFPYAR - VYAILTHGIFSGF
AVVVTNTIPQEDK - MVLVGDVK - MVLVGDVKDR - NCTIVSPDAGGAK - RVTSIADR - SRAPISAK - VTAVIPCFFPYAR
PGTGK - FVQCPDGELQK - GLGLDDALEPR - GTEVQVDDIKR - GTSYQSPHGIPIDLDR - IGLETSR - LLIVSTSPYSEK - TEALTQAFR - TQGLALFSGDTEIK - TTEMETIYDLGTK - VYSFLDES
AALR - IILIEGK - KWDTCAPEVILHAVGGK - LTDIHGNALQYNK - LVSAYSIAQK - LVQMSICSSAR - QPCPSQYSAIK - SHSNQLVTDICISAMNPDTVLR - TSATDLQTK - WDTCAPEVILHAVGGK

LAENEYQTAISENYQTMSDITFK - LLLNNDNLLR - TKIDWNK - TSVETALR
ENYVADIEVDGK - EVFEMATR - HFCPNVPIILVGNK - HFCPNVPIILVGNKK - IGAFGYMECSAK - KLIVVGDGACGK - LRPLSYPDTDVILMCFSDSPDSLENIPEK - LIVVGDGACGK - MKQEPVKPEEGR -
DITR - IIEVSGQK - IYQNIQDGSLLDNLAAESGVQHKPSAPQGGK - KFMADCPHTIGVEFGTR - KIYQNIQDGSLLDNLAAESGVQHKPSAPQGGK - LQIWDTAGQER - LTSEPQQR - NLTNPNTVILIGNK - QFA
GHIKDEVFGTVK - GPAEAEATTD - HQTLQGVAFPISR - IEIDNGDELTAFLYDEVHPK - INEVQTDVSVDTK - KQLNYVQLEIDIK - MLYAATR - MLYSSCK - NETIILANTENTELR - QLNIVQLEIDIK - QLC
_QANCYEEVKDR - LGGSAVISLEGKPL - MLPDKDCR - NIILEEGKEILVGDVGGQTVDDPYTTFVK - SSTPEEVK - YALYDATYETK
QATESSGR - QQFWGNEGTAEGTEPSQSERPEEK - SQPTLPSTIDER - SSELDEDEGFGDWSQKPEPR - TLWETGEVQSQSASK - VHLEESNLSYREPDPEAVGGSGEAEHLIR
EAVGGSGEAEHLIR - KSLWEQK - LADRTESLNR - LQYQATESSGR - QQFWGNEGTAEGTEPSQSERPEEK - SQPTLPSTIDER - SSELDEDEGFGDWSQKPEPR - TLWETGEVQSQSASK - VHLEESNLS'
VK - EFGGGHIKDELFGTVK - ETIELVHTEPTNVAQLPSR - HLSSCAAPAPLTAER - HQTLQGLAFPLQPEAQR - HTHEGDALLESVVFYISMPGYK - IEIGDGAELTAFLYDEVHPK - KIEIGDGAELTAFLYDE
PSAPR - LDILDTAGQEEFGAMR - LFTQILR - LNVDEAFEQLVR - LVVVGGGGVGK - QSFNEVGK - SEASSFSASHHMTYFEASAK

JVQEAQNILK - MAENLGLGLSK - NQAADQITK - SHNGPVIVGSPQGGVDIEVAASSPELIFK - VMVAEALDISR

K - GEQILLSDNAASLAVQAFLOMCNLPVK - GHLSLSDGLDEVQK - GHLSLSDGLDEVQKAEMK - IEQHYFEDWGK - LGTQPYFFNK - MKAIGWGNK - NYSNLLAFCR - TLDQVLEDVDQCCQALSQR - VKN'
IFGK - DLQNVNITLR - EFTEAVEAK - FDAGELITQR - FGLALAVAGGVVNSALYNVDAGHR - GVQDIVVGEETHFLIPWVQKPIIFDCR - ILFRPVASQLPR - IYTSIGEDYDER - KLEAAEDIAYQLSR - NITYL
GELITQR - FGLALAVAGGVVNSALYNVDAGHR - IYTSIGEDYDER - KLEAAEDIAYQLSR - NITYLPAGQSVLLQLPQ - NVPVITGSK - QVSDDLTER - VFESIGK - VLPSITTEILK
LLAK - ELAMPGEDLK - HYAHTDCPHADYVK - KYEEDNAPEER - LLDVADTYIPVPT - QIGVEHVVVVYVKN - TTLTAAITK - YEEIDNAPEER
JVNIPFTEFLTNEGK - FQGTQPEPR - THEDILENLDAR

ITSGSQR - VILGSPAHR

NYPVLTNPMK - GFEEAVAAGAK - GYVSCALGCPYEGK - KNANCSIEESFQR - LLEAGDFICQALNR - NANCIEESFQR

FFEDVRLPANALLGEENK - CIGAIAMTEPGAGSDLQGV - GFYYLMQELPQER - LDSGSASMAK - LETPSAK - LPANALLGEENK - LPANALLGEENKGFYYLMQELPQER - QGLLGINIAEK - RLDSGSASMAK - ISNTDTGK - WCEYGLTFTEK - YQLDPTASISAK

IIVEK - DVPVGSIIICITVEKPDIEAFK - GIDLTQVK - GKISVNDFFIK - ISVNDFFIK - LQPHEFQGGTFTISNLGMFGIK - NFSAIINPPQACILAIGASEDK - NFSAIINPPQACILAIGASEDKLIPADNEK - VAPAPAC

QLAVCQQR - VVHYTGWLLDGTK - VLQLYPSNK

. - AKESWEMSSAEK - ALELDSNNEK - AWDIAVATMK - EGTGTETPMIGDR - ELCFEVGESESLDLPCGLEEAIQR - FDSSLDRK - FQIPHAELR - GEDLTEEEDGGIIR - GEGYARPNDGAMVEVALEGYHK - (

. - AKESWEMSSAEK - EGTGTETPMIGDR - ELCFEVGESESLDLPCGLEEAIQR - ESWEMSSAEK - FQIPHAELR - FSPDLGKGEVIK - GEHLAVNDFDLAR - GEDLTEEEDGGIIR - GEGYARPNDGAMVEVA

JK - LGEGEGSMTK - LGEGEGSMTKEEFTK - NLVELAELELK - QELEAEYLAIFK - QELIDFK - QNEFSVVR - SAADDYNR - SADGVIVSGVK - SADGVIVSGVKDVEDDFEHER - SLVDYENANK - TFLLEYI

ITYEVR - VQNMALYADVSGK - YQVSWLEHK

3NLEWLDK - LIYQWVSR - QSSMTVMEAQESPLFNNVK - SSFLIMWR

LMK - FLSILCSR - GAGTDEGLIEILASR - GLGTDDNTLIR - GLGTDEDAIIGILAYR - INQTYQQYGR - QDAQELYEAGEK - SETSGSFEDALLAIVK - SKPSYFAER - VLVLSAAGR

IDMLDIR - DEGNYLDDALMK - FLSILCSR - GAGTDEGLIEILASR - GLGTDDNTLIR - GLGTDEDAIIGILAYR - INQTYQQYGR - NHLLHVFDEYK - QDAQELYEAGEK - QDAQELYEAGEK - RINQTYC

EELHQQVLK - NGYVTVSEIK - TNLEEFASK

TGTEEDR - ELADENQTLK - FYAGGSR - HSGQDVHVVLK - LGAAPPEESAYVAGER - LGSTAPQVLNTSSPAQAENEAK - SGQQIVGPPR - SYQDPSNAQFLESIR - TGFSLDNGDLR

.DATLSQITNNIDPVGR - LFVSGACDASAK - LIWDSYTTNK - LLLAGYDDFNCNVWDALK - LLVSASQDGK

ECASINR - ICGDIHGQYYDLLR - IYGFYDECK - LNLDSIHR - NVQLTENEIR - TFTDCFNCLPIAAIVDEK - YGQFSGLNPGGRPITPPR - YPENFFLLR

JK - EALQDVEDENQ - EDLVYQAK - KEAAENSLVAYK - KVAGMDVELTVEER - LAEQER - LAEQAERYDEMVESMK - LICCDILDVLDK - LICCDILDVLDKHLIPAANTGESK - QMVETELK - VAGMDVEI

IGQR - LSCVPVLIIFANK - QDLLTAAPASEIAEGLNLHTIR - QLASEDISHITPQGFNIK - RFEETGQELTELEEEK - SAPDQEV - SVQSQGFK - SYFENTDILYVIDSADR - SYFENTDILYVIDSADR

ITSVAFSR - ELPGHTGYLSCCR - IYAMHWGTDSR - KACGDSTLTQITAGLDPVGR - LIWDSYTTNK - LLLAGYDDFNCNIWDAMK - LLVSASQDGK - QTFIGHESDINAVAFFPNGYAFTTGSDDATCR - TFVVS

IVPGVEHEAR

QK - NQGDFSLSVR - SGMVQTEAQYK - VNAADIENR - VYGLYSVTNSR

QK - NQGDFSLSVR - SGMVQTEAQYK - VNAADIENR - VYGLYSVTNSR

.QELEVLGR - QLAAQFMNGSLSEEDKR

.QIGDEMHNQPTLVR - IEPDSESQEEIHNAR - QELEVLGR - QLAAQFMNGSLSEEDK - QLAAQFMNGSLSEEDKR - VASHAPSLLR

3YYSWR - LEFMHILTR - LFIIQACR - SGTVDVAANLR - SINNFVVK - SSFVCVILSHGDEGVYGTNGPVK - SVDSGIYLDSSYK - VATEFESFLDSTFHAK

LVSGFPAGLR - VNLEDCR - VQVQPLELPVVTNIQVSSQPDNHR - VSPYVSGEIQK

.ALDLELK - ALTGHLEEVVLAMK - ALYEAGER - CLTTIVK - CQDLSVNQDLADTDAR - DITSDTSGDFR - FLENQEQEYVQAVK - GGPGSAVSPYPSFNVSSDVAALHK - GVDEATHIDILTR - KALLALAK

R - MVVVVVSDDYLSK - QLEQTDYR - QNQESEKPLQVAR - SLLDAWQGR

IK - LALIICNTEFQHLSR - LANITAMDK - LLEDLGYTVK - LQMPTADR - VGAQVDLR - VLNQEEMDK

MLEK - HLEQTNPR - SIGDLGAR

HLAAR

VFR

'AK - EVEIAYSVDVAK - FLDGDEMTLADCNLLPK - FSAYIKNSRPEANEALER - GVVFSVTTVDLK - HPESNTAGMDIFAK - IEEFLEEVLCPPK - KPADLQNLAPGTHPPFITFNSEVK - LDEYLN SPLPDEIDENS - PSDKEVEIAYSVDVAK - EEDKEPLIELFVK - EVEIAYSVDVAK - FLDGDEMTLADCNLLPK - FSAYIK - FSAYIKNSRPEANEALER - GLLKTLQK - GMTGIWR - GVVFSVTTVDLK - GVVFSVTTVDLKR - HPES

QLGFDISEEEVTAPAPATCQILK - ETSGLMLDVGGYMK - FCTNESQK - FRPGDEHHPEVQADGYVDNLAEAVDLLK - GLRPHLLIHEGVR - LKQSPLK - SALQAIGVEAHQAIMIGDDIVGDVGGAAQCGMR

DELGDPR - EFLHYK - EKYVLLEEK - FSSEELDK - FSSEELDKLWR - IQRDELNWK - IQEYNVLLDTLSR - KVSHQGYGSTTEFEPR - LAELHSDLK - LIHNLNVILAR - LKHVESIGDPEHISR - LNQLWEK - VLITGATGLLGR

LLNALR - EAIQHPADEK - EAIQHPADEKLQEK - EIYNQVNVVLK - GLLGALTSTPYSPTQHLEK - INNVPAEGENEVNNELANR - KFYEFQR - MTNPAIQNDFSYYR - VMLETPEYR

YTTNK - TPFLVGTQIDLR

INNAATLGDVSK - LLSPGSVMLVSAR - QLKEELGAQQPDLK - VVLAADLGTEAGVQR