Manuscript: Improved IMAC for large scale phosphoproteomics application
Journal of Proteome Research
Supplementary data

Table 1: Details of phosphopeptides identified from 2e6 cell equivalent on small (360x200µm) IMAC column (Fig. 2A)

pep_mz	pep_mr	pep_z	pep_score	pep_sequence	Num Mods	ModPos1	ModPos2	ModPos3	ModPos4	ModPos5
			27.9	AAESETPGKSPEK	2	6	10	0	0	0
773.83	1545.65	2	27.9	AAESETPGKSPEK						
			28.91	AASDGQYENQSPEATSPR	5	3	7	11	15	16
788.29	2361.85	3	28.91	AASDGQYENQSPEATSPR						
			31.67	AASSDQLRDNSPPPAFKPEPPK	2	3	11	0	0	0
641.98	2563.9	4	31.67	AASSDQLRDNSPPPAFKPEPPK						
			31.35	AAVGLVLPAKLRDLSR	1	15	0	0	0	0
596.2	1785.58	3	31.35	AAVGLVLPAKLRDLSR						
			43.47	AAVLSDSEDEEKASAK	2	5	7	0	0	0
631.93	1892.78	3	43.47	AAVLSDSEDEEKASAK						
			27.13	ADNNSVFATGGTASWNTSTAESPASTPK	3	5	14	17	0	0
763.73	3050.9	4	27.13	ADNNSVFATGGTASWNTSTAESPASTPK						
			25.71	AEAMKSPELK	1	6	0	0	0	0
612.78	1223.55	2	25.71	AEAMKSPELK						
			28.88	AEEDEILNRSPR	1	10	0	0	0	0
789.85	1577.69	2	28.88	AEEDEILNRSPR						
			33.79	AGDLLEDSPK	1	8	0	0	0	0
590.77	1179.52	2	33.79	AGDLLEDSPK						
			28.36	AGGPADEYDEECNNAKDTTHSGITSTPK	3	21	24	26	0	0
812.39	3245.54	4	28.36	AGGPADEYDEECNNAKDTTHSGITSTPK						
			25.31	AGGPTTPLSPTR	2	5	11	0	0	0
664.78	1327.55	2	25.31	AGGPTTPLSPTR						
			25.1	AGREQTGLEAYALGLDTKNYFKDLPK	4	6	11	17	20	0
822.99	3287.94	4	25.1	AGREQTGLEAYALGLDTKNYFKDLPK						
			36.46	AKSPTPDGSER	2	3	5	0	0	0
673.76	1345.5	2	36.46	AKSPTPDGSER						
			32.69	ALEPGRAPPPPGEGLGAGIPSLSPPQK	1	23	0	0	0	0
678.74	2710.92	4	32.69	ALEPGRAPPPPGEGLGAGIPSLSPPQK						
			25.25	ALSIGVAVIRGYYYALDVWGQGTTVSVSS	4	3	23	28	29	0
845.81	3379.22	4	25.25	ALSIGVAVIRGYYYALDVWGQGTTVSVSS						
			30.85	ALSSPTAAAGLVTITPR	2	4	13	0	0	0
600.33	1797.96	3	30.85	ALSSPTAAAGLVTITPR						
			31.02	ANTSALAVPSPVSNSASARHRTEALMDAQK	2	3	17	0	0	0
821.62	3282.47	4	31.02	ANTSALAVPSPVSNSASARHRTEALMDAQK						
			32.65	APLYGVIKYTKLSPPK	2	9	10	0	0	0
650.67	1948.99	3	32.65	APLYGVIKYTKLSPPK						
			29.59	APRSSGPRTERGVSVDSSQSLTLCR	4	4	9	18	20	0
1003.3	3006.87	3	29.59	APRSSGPRTERGVSVDSSQSLTLCR						
			25.32	APSPPSRR	2	3	6	0	0	0
521.22	1040.43	2	25.32	APSPPSRR						
521.2	1040.39	2	25.29	APSPPSRR						
			32.95	APTVAEGPSSCLR	2	9	10	0	0	0
737.74	1473.47	2	32.95	APTVAEGPSSCLR						
			28.24	AQARGLLPGGTQVLDGTSGFSPAPK	2	11	18	0	0	0
654.25	2612.96	4	28.24	AQARGLLPGGTQVLDGTSGFSPAPK						
			28.46	ARSVSPPPKR	2	3	5	0	0	0
634.78	1267.55	2	28.46	ARSVSPPPKR						
			42.7	ASAVSELSPR	1	8	0	0	0	0
562.76	1123.51	2	42.7	ASAVSELSPR						
			27.65	ASCSTAGSGSRGLPPSSPMVSSAHNPNK	5	5	8	10	16	21
775.53	3098.1	4	27.65	ASCSTAGSGSRGLPPSSPMVSSAHNPNK						
			25.95	ASESSFGKP	3	2	4	5	0	0
589.74	1177.47	2	25.95	ASESSFGKP						
			26.23	ASGVPDRISGSGSGTDFTLKITR	5	9	13	15	18	22
691.61	2762.43	4	26.23	ASGVPDRISGSGSGTDFTLKITR						
			25.72	ASILSLSLTTEWVSLGLSEK	2	9	18	0	0	0
779.3	2334.87	3	25.72	ASILSLSLTTEWVSLGLSEK						
			26.34	ASLTK	2	2	4	0	0	0
692.49	691.48	1	26.34	ASLTK						
			30.22	ASPATHR	1	2	0	0	0	0
417.17	832.33	2	30.22	ASPATHR						
			25.15	ASQSITSWLAWYQQKPGKAPK	3	4	7	12	0	0
876.92	2627.74	3	25.15	ASQSITSWLAWYQQKPGKAPK						
			26.83	ASQSVSSTSLAWYQQKPGHPPR	4	4	6	8	13	0
687.28	2745.11	4	26.83	ASQSVSSTSLAWYQQKPGHPPR						
			53.13	ASSFADMMGILK	1	3	0	0	0	0
689.24	1376.46	2	53.13	ASSFADMMGILK						
			27.58	ASTGRVPPSREKPPLPACEPSLPSPK	2	3	21	0	0	0
725.89	2899.52	4	27.58	ASTGRVPPSREKPPLPACEPSLPSPK						
			25.83	ASTSKSESSQK	2	3	9	0	0	0
664.25	1326.49	2	25.83	ASTSKSESSQK						
			25.52	ASVLDTSMSAGSGSPSKTVTPK	5	6	7	14	18	20
634.77	2535.05	4	25.52	ASVLDTSMSAGSGSPSKTVTPK						
			28.6	ATDAVGPQLSLANCYEVLSAAK	2	2	10	0	0	0
808.64	2422.89	3	28.6	ATDAVGPQLSLANCYEVLSAAK						
			26.18	ATIAISSQEGDNSERTLSNNITVPK	3	7	13	22	0	0
735.88	2939.5	4	26.18	ATIAISSQEGDNSERTLSNNITVPK						
			26.93	ATLDTALSPPK	2	5	8	0	0	0

650.9	1299.78	2	26.93	ATLDTALSPPK						
			26.3	ATLSCGASQSISSNYLAWYQQKPGLAPR	4	4	12	15	19	0
833.42	3329.64	4	26.3	ATLSCGASQSISSNYLAWYQQKPGLAPR						
			25.71	ATMKTSTVSTAHASK	3	6	7	9	0	0
592.22	1773.64	3	25.71	ATMKTSTVSTAHASK						
			25.27	ATSGGCQPPRDSATGFHREGPTSSATLK	4	3	23	24	26	0
795.37	3177.46	4	25.27	ATSGGCQPPRDSATGFHREGPTSSATLK						
			40.78	ATSTSPNSQSSK	1	3	0	0	0	0
644.76	1287.51	2	40.78	ATSTSPNSQSSK						
			27.73	AVGCGAGSSSGRGEVGADLPGSLSLLETEGK	4	8	9	24	28	0
813.32	3249.24	4	27.73	AVGCGAGSSSGRGEVGADLPGSLSLLETEGK						
			25.85	AVNEPGSPTRK	2	7	9	0	0	0
448.22	1341.63	3	25.85	AVNEPGSPTRK						
			31.09	AVSISPTNVILTWK	1	12	0	0	0	0
812.35	1622.68	2	31.09	AVSISPTNVILTWK						
			28.14	AVSPTETKPTPTEKVQHLPVSAPPK	4	7	10	12	21	0
751.26	3001.01	4	28.14	AVSPTETKPTPTEKVQHLPVSAPPK						
			25	CAYFEISAK	2	3	7	0	0	0
609.75	1217.48	2	25	CAYFEISAK						
			25.53	CRSLTGAGARTSAAGPLAR	2	5	12	0	0	0
663.93	1988.76	3	25.53	CRSLTGAGARTSAAGPLAR						
			26.11	CSPDNGNLVDSEMKYLGSPITTVPK	5	2	11	18	21	22
781.21	3120.8	4	26.11	CSPDNGNLVDSEMKYLGSPITTVPK						
			27.95	CVGGTAGCDSYTPK	2	10	12	0	0	0
774.28	1546.54	2	27.95	CVGGTAGCDSYTPK						
			25.19	DDKGSTSSTSGSSGSSTKNIWVSGLSSNTK	12	6	7	8	9	10
991.62	3962.46	4	25.19	DDKGSTSSTSGSSGSSTKNIWVSGLSSNTK						
			44.76	DGDSYDPYDFSDTEEEMPQVHTPK	2	4	11	0	0	0
773.03	3088.08	4	44.76	DGDSYDPYDFSDTEEEMPQVHTPK						
			25.58	DGSASPAVTK	2	5	9	0	0	0
560.22	1118.42	2	25.58	DGSASPAVTK						
			26.17	DKEVSDDEAEEKEDKEEEK	1	5	0	0	0	0
636.83	2543.28	4	26.17	DKEVSDDEAEEKEDKEEEK						
			26.59	DKSHSHTPSR	3	3	5	7	0	0
473.82	1418.45	3	26.59	DKSHSHTPSR						
			28.28	DLAGWSTMARSQLTATSASR	3	6	11	14	0	0
793.29	2376.85	3	28.28	DLAGWSTMARSQLTATSASR						
			25.8	DLSSTPMASNNTASIAQARK	1	9	0	0	0	0
724.29	2169.86	3	25.8	DLSSTPMASNNTASIAQARK						
			25.67	DRSPPKSPEK	2	3	7	0	0	0
671.77	1341.52	2	25.67	DRSPPKSPEK						
			25.91	DRTYAVSYVPK	2	3	7	0	0	0
743.29	1484.56	2	25.91	DRTYAVSYVPK						
			35.58	DSKPSSTPR	2	5	7	0	0	0
581.71	1161.4	2	35.58	DSKPSSTPR						
			25.17	DSVTCPTCQGTGRIPR	4	2	4	7	11	0
679.99	2036.96	3	25.17	DSVTCPTCQGTGRIPR						
			25.81	DTAKNSLSLQMSSLR	4	2	6	12	13	0
667.19	1998.55	3	25.81	DTAKNSLSLQMSSLR						
			26.04	DTSASTVYMDLSSLR	4	2	3	8	12	0
669.62	2005.85	3	26.04	DTSASTVYMDLSSLR						
			40.01	DWEDDSDEDMSNFDR	1	6	0	0	0	0
694.56	2080.67	3	40.01	DWEDDSDEDMSNFDR						
			30.07	EAEDSDSDDNIKR	2	5	7	0	0	0
584.54	1750.59	3	30.07	EAEDSDSDDNIKR						
			26.56	EAEDSLSITVVRCTSGVPK	4	5	9	14	15	0
789.33	2364.98	3	26.56	EAEDSLSITVVRCTSGVPK						
			47.09	EDKSDQSDDEKIQNSDDEER	3	4	7	15	0	0
694.77	2775.05	4	47.09	EDKSDQSDDEKIQNSDDEER						
			40.38	EDSGTFSLGK	1	3	0	0	0	0
581.71	1161.4	2	40.38	EDSGTFSLGK						
			26.88	EEAPASPLRPLYPQISPLK	2	6	16	0	0	0
770.35	2308.02	3	26.88	EEAPASPLRPLYPQISPLK						
			29.77	EEEEGISQESSEEEQ	3	7	10	11	0	0
702.21	2103.6	3	29.77	EEEEGISQESSEEEQ						
702.22	2103.64	3	28.37	EEEEGISQESSEEEQ						
702.56	2104.64	3	27.51	EEEEGISQESSEEEQ						
			26.18	EEPPSPIEATPPQSLLEKVSKK	2	10	20	0	0	0
878.97	2633.89	3	26.18	EEPPSPIEATPPQSLLEKVSKK						
			27.48	EESVDVALALTLSNLISLK	3	3	11	13	0	0
770.91	2309.71	3	27.48	EESVDVALALTLSNLISLK						
			25.26	EGLSGSYFVDYWGQGTLVTVSS	4	4	16	21	22	0
679.28	2713.1	4	25.26	EGLSGSYFVDYWGQGTLVTVSS						
			25.94	EGLTSAGIKRWEGPPTTSR	3	4	5	16	0	0
775.88	2324.63	3	25.94	EGLTSAGIKRWEGPPTTSR						
			28.43	EGPTTGARTFDYWGQGTLVTVSSASPTSPK	3	17	22	27	0	0
845.89	3379.54	4	28.43	EGPTTGARTFDYWGQGTLVTVSSASPTSPK						
			26.87	EGTGSTATSSSSTAGAAGK	5	3	5	8	9	12
686.26	2055.76	3	26.87	EGTGSTATSSSSTAGAAGK						
			53.03	EKQSSEEEEKETR	2	4	5	0	0	0
933.89	1865.77	2	53.03	EKQSSEEEEKETR						
622.87	1865.58	3	34.25	EKQSSEEEEKETR						
			29.87	ELQKGSCGPHTYSSK	3	6	11	12	0	0
630.49	1888.44	3	29.87	ELQKGSCGPHTYSSK						
			32.14	ELSNSPLRENSFGSPLEFR	3	3	11	14	0	0
825.63	2473.88	3	32.14	ELSNSPLRENSFGSPLEFR						

			27.75	ENQSEGKGSDSDSEGDNPEK	2	4	11	0	0	0
794.32	2379.94	3	27.75	ENQSEGKGSDSDSEGDNPEK						
			26.23	EPAPTTTKEPAPTTPK	2	5	13	0	0	0
623.27	1866.78	3	26.23	EPAPTTTKEPAPTTPK						
			26.77	EPAPTTTKEPAPTTTKSAPTTPK	7	5	6	7	13	14
739.3	2953.18	4	26.77	EPAPTTTKEPAPTTTKSAPTTPK						
			27.52	EQSTPPKSPQ	2	3	8	0	0	0
643.75	1285.48	2	27.52	EQSTPPKSPQ						
			40.4	ERDHSPTPSVFNSDEER	2	5	13	0	0	0
749.63	2245.87	3	40.4	ERDHSPTPSVFNSDEER						
			28.43	ERGNTK	1	5	0	0	0	0
406.22	810.42	2	28.43	ERGNTK						
			32.53	ERSPSPPTIQSK	2	3	5	0	0	0
757.84	1513.67	2	32.53	ERSPSPPTIQSK						
			31.23	ESFPLTVTSAPK	2	6	9	0	0	0
733.29	1464.57	2	31.23	ESFPLTVTSAPK						
			33.31	ESTTTPGQYVLTGSQSGQPK	3	2	4	5	0	0
778.41	2332.2	3	33.31	ESTTTPGQYVLTGSQSGQPK						
			25.08	ETLHTWGSK	2	2	5	0	0	0
623.28	1244.55	2	25.08	ETLHTWGSK						
			32.4	EVTFHCHEGYILHGAPK	1	3	0	0	0	0
687.34	2059.01	3	32.4	EVTFHCHEGYILHGAPK						
			26.66	EVVCTENLTPWKKLLPCSSK	1	5	0	0	0	0
799.7	2396.08	3	26.66	EVVCTENLTPWKKLLPCSSK						
			29.96	FASDDEHDEHDENGATGPVK	1	3	0	0	0	0
787.97	2360.88	3	29.96	FASDDEHDEHDENGATGPVK						
			32.03	FASDDEHDEHDENGATGPVKR	1	3	0	0	0	0
630.27	2517.05	4	32.03	FASDDEHDEHDENGATGPVKR						
			57.86	FNDSEGDDTEETEDYR	2	4	9	0	0	0
736.57	2206.7	3	57.86	FNDSEGDDTEETEDYR						
			25.32	FNSQSTSYLPGYVPK	1	7	0	0	0	0
594.22	1779.62	3	25.32	FNSQSTSYLPGYVPK						
			26.31	FSAPSSAHSRSAGSTTIIQR	3	2	14	15	0	0
772.29	2313.84	3	26.31	FSAPSSAHSRSAGSTTIIQR						
			26.21	FSGSIDSSSDSASLTISGLK	3	4	11	15	0	0
561.22	2240.83	4	26.21	FSGSIDSSSDSASLTISGLK						
			25.42	FSVSGTGTTYSQSSASTYVPTVCNGR	7	2	4	6	8	11
808.8	3231.18	4	25.42	FSVSGTGTTYSQSSASTYVPTVCNGR						
			33.52	GAKSDPSIVR	1	7	0	0	0	0
568.72	1135.42	2	33.52	GAKSDPSIVR						
			30.01	GCPVTSKSSPERGSQRSK	3	8	9	17	0	0
720.36	2158.05	3	30.01	GCPVTSKSSPERGSQRSK						
			63.03	GEFSASPMLK	1	6	0	0	0	0
587.72	1173.43	2	63.03	GEFSASPMLK						
			26.58	GEKSASAVSGDTAAATTLK	3	4	9	12	0	0
682.62	2044.85	3	26.58	GEKSASAVSGDTAAATTLK						
			48.39	GGSGYHSR	1	3	0	0	0	0
457.66	913.31	2	48.39	GGSGYHSR						
457.67	913.33	2	32.71	GGSGYHSR						
			28.2	GLEWVSSISGSGSSSYYADSVK	7	6	7	9	11	13
717.76	2867	4	28.2	GLEWVSSISGSGSSSYYADSVK						
			27.44	GLSPAYLRFGGTKTDFLIFDPK	2	3	12	0	0	0
662.24	2644.92	4	27.44	GLSPAYLRFGGTKTDFLIFDPK						
			57.09	GNAEGSSDEEGKLVIDEPAK	2	6	7	0	0	0
768.3	2301.86	3	57.09	GNAEGSSDEEGKLVIDEPAK						
768.61	2302.82	3	43.45	GNAEGSSDEEGKLVIDEPAK						
576.72	2302.86	4	35.55	GNAEGSSDEEGKLVIDEPAK						
			49.49	GNAEGSSDEEGKLVIDEPAKEK	2	6	7	0	0	0
858.71	2573.11	3	49.49	GNAEGSSDEEGKLVIDEPAKEK						
			44.03	GNDPLTSSPGR	2	7	8	0	0	0
644.72	1287.44	2	44.03	GNDPLTSSPGR						
			37.09	GPPSPPAPVMHSPSR	2	4	12	0	0	0
563.21	1686.6	3	37.09	GPPSPPAPVMHSPSR						
			27.07	GPSLGSGGPPPR	2	3	6	0	0	0
626.25	1250.5	2	27.07	GPSLGSGGPPPR						
			25.23	GRGSRLAGSR	2	4	9	0	0	0
595.23	1188.44	2	25.23	GRGSRLAGSR						
			26.75	GRSSSASSPPK	1	3	0	0	0	0
578.22	1154.42	2	26.75	GRSSSASSPPK						
			28.39	GRTLSSPATK	2	3	9	0	0	0
596.27	1190.52	2	28.39	GRTLSSPATK						
			25.74	GSGAAGSSQTGDALGK	2	7	10	0	0	0
775.98	1549.95	2	25.74	GSGAAGSSQTGDALGK						
			25.48	GSGSCLTSGATGPCQADSSLK	2	2	18	0	0	0
705.32	2112.93	3	25.48	GSGSCLTSGATGPCQADSSLK						
			25.69	GSISTPEDSGFNSLSLEK	3	5	13	15	0	0
722.27	2163.8	3	25.69	GSISTPEDSGFNSLSLEK						
			49.85	GSPHYFSPFRPY	1	2	0	0	0	0
			31.02	GSPHYFSPFRPY	2	2	7	0	0	0
774.26	1546.5	2	49.85	GSPHYFSPFRPY						
774.79	1547.57	2	47.88	GSPHYFSPFRPY						
814.73	1627.44	2	31.02	GSPHYFSPFRPY						
			38.97	GTGQSDDSDIWDDTALIK	2	5	8	0	0	0
727.93	2180.78	3	38.97	GTGQSDDSDIWDDTALIK						
			27.11	GVDASKK	1	5	0	0	0	0
406.68	811.34	2	27.11	GVDASKK						

			29.34	GVGLGTAFDIWGQGTVVTVSSASPTSPK	5	6	15	18	20	23
787.81	3147.22	4	29.34	GVGLGTAFDIWGQGTVVTVSSASPTSPK						
			25.35	GVSLSSR	1	3	0	0	0	0
400.19	798.37	2	25.35	GVSLSSR						
			26.55	GYDWTLVPMPVRVNGSSK	3	5	16	17	0	0
758.97	2273.89	3	26.55	GYDWTLVPMPVRVNGSSK						
			30.99	HASTSSPADK	2	3	5	0	0	0
594.69	1187.37	2	30.99	HASTSSPADK						
			26.14	HLTTSVITEIGASLSLTSFLQNPLK	3	5	17	18	0	0
735.59	2938.31	4	26.14	HLTTSVITEIGASLSLTSFLQNPLK						
			56.85	HNDIVDSDSDAEDR	2	7	9	0	0	0
615.88	1844.61	3	56.85	HNDIVDSDSDAEDR						
			36.97	HRPSPPATPPPK	2	4	8	0	0	0
728.3	1454.58	2	36.97	HRPSPPATPPPK						
728.3	1454.59	2	29.47	HRPSPPATPPPK						
			34.2	HSSISPVRLPLNSSLGAELSR	2	2	3	0	0	0
603.05	2408.16	4	34.2	HSSISPVRLPLNSSLGAELSR						
			35.82	IEDVGSDEEDDSGKDK	2	6	12	0	0	0
675.6	2023.78	3	35.82	IEDVGSDEEDDSGKDK						
			28.78	IEDVGSDEEDDSGKDKK	2	6	12	0	0	0
717.95	2150.83	3	28.78	IEDVGSDEEDDSGKDKK						
			47.86	IGEGTYGVVYK	2	5	6	0	0	0
687.27	1372.53	2	47.86	IGEGTYGVVYK						
			25.18	IHRLPVIDPISGNALYILTHK	2	11	19	0	0	0
640.25	2556.96	4	25.18	IHRLPVIDPISGNALYILTHK						
			26.31	INASFKKK	1	4	0	0	0	0
			26.17	INDSVTLSK	3	4	6	8	0	0
622.23	1242.45	2	26.17	INDSVTLSK						
			50.62	INSSGESGDESDEFLQSR	4	3	4	7	11	0
787.65	2359.93	3	50.62	INSSGESGDESDEFLQSR						
787.6	2359.77	3	29.93	INSSGESGDESDEFLQSR						
			26.21	IPAQTKSPEETDK	1	11	0	0	0	0
790.42	1578.82	2	26.21	IPAQTKSPEETDK						
			28.33	IPCKSPPPELTDTATSTKR	4	11	13	15	17	0
802.07	2403.19	3	28.33	IPCKSPPPELTDTATSTKR						
			25.89	ISEGLPTPTKMTPR	2	7	12	0	0	0
572.58	1714.71	3	25.89	ISEGLPTPTKMTPR						
			26.44	ISSTSMTSNCSSCASPWSSR	3	3	4	12	0	0
778.22	2331.62	3	26.44	ISSTSMTSNCSSCASPWSSR						
			25.83	ISVYTGKSETITDMLLQK	4	4	8	10	12	0
796.91	2387.72	3	25.83	ISVYTGKSETITDMLLQK						
			38.92	ITATAGAAVAFIGLHTSSFTSSLSLR	5	2	17	18	20	24
749.28	2993.1	4	38.92	ITATAGAAVAFIGLHTSSFTSSLSLR						
			26.38	ITEIIPVTGPREGGTK	2	2	8	0	0	0
624.28	1869.82	3	26.38	ITEIIPVTGPREGGTK						
			27.14	ITIAIDTSK	2	7	8	0	0	0
575.18	1148.35	2	27.14	ITIAIDTSK						
			27.54	IYNLGTGTGYSVLQMVQAMEKASGKK	3	2	8	11	0	0
761.28	3041.07	4	27.54	IYNLGTGTGYSVLQMVQAMEKASGKK						
			26.41	KAEDSDSEPEPEDNVR	2	5	7	0	0	0
696.91	2087.72	3	26.41	KAEDSDSEPEPEDNVR						
			43.8	KAPKSPAK	1	5	0	0	0	0
460.17	918.33	2	43.8	KAPKSPAK						
460.67	919.33	2	42.91	KAPKSPAK						
			47.91	KATGAATPK	1	7	0	0	0	0
469.73	937.44	2	47.91	KATGAATPK						
469.72	937.43	2	42.25	KATGAATPK						
			51.84	KDSASEEEAR	2	3	5	0	0	0
676.24	1350.47	2	51.84	KDSASEEEAR						
			55.51	KEESEESDDDMGFGLFD	2	4	7	0	0	0
1118.36	2234.71	2	55.51	KEESEESDDDMGFGLFD						
1118.38	2234.75	2	48.85	KEESEESDDDMGFGLFD						
745.94	2234.8	3	30.98	KEESEESDDDMGFGLFD						
			25.11	KEPGGGGGGGGGGGGGGGGGVSSEK	2	21	22	0	0	0
673.67	2017.99	3	25.11	KEPGGGGGGGGGGGGGGGGGVSSEK						
			32.8	KESESEDSSDDEPLIK	4	3	5	8	9	0
747.26	2238.76	3	32.8	KESESEDSSDDEPLIK						
747.31	2238.9	3	26.12	KESESEDSSDDEPLIK						
			65.68	KETESEAEDNLDDLEK	2	3	5	0	0	0
717.61	2149.8	3	65.68	KETESEAEDNLDDLEK						
			50.11	KGNAEGSSDEEGK	2	7	8	0	0	0
769.27	1536.52	2	50.11	KGNAEGSSDEEGK						
			65.49	KGNAEGSSDEEGKLVIDEPAK	2	7	8	0	0	0
608.51	2430.01	4	65.49	KGNAEGSSDEEGKLVIDEPAK						
608.52	2430.03	4	59.74	KGNAEGSSDEEGKLVIDEPAK						
811.01	2430.02	3	42.21	KGNAEGSSDEEGKLVIDEPAK						
			38.77	KHSPSPPPPTPTESR	2	3	5	0	0	0
901.87	1801.72	2	38.77	KHSPSPPPPTPTESR						
601.58	1801.73	3	32.88	KHSPSPPPPTPTESR						
601.57	1801.68	3	32.03	KHSPSPPPPTPTESR						
			27.17	KLEKEEEEGISQESSEEEQ	2	14	15	0	0	0
			43.77	KLEKEEEEGISQESSEEEQ	3	11	14	15	0	0
872.95	2615.83	3	43.77	KLEKEEEEGISQESSEEEQ						
873	2615.98	3	31.08	KLEKEEEEGISQESSEEEQ						
873	2615.99	3	28.86	KLEKEEEEGISQESSEEEQ						
873.33	2616.95	3	28.56	KLEKEEEEGISQESSEEEQ						

846.15	2535.44	3	27.17	KLEKEEEEGISQESSEEEQ						
			40.2	KLSVPTSDEEDEVPAPKPR	3	3	6	7	0	0
806.66	2416.97	3	40.2	KLSVPTSDEEDEVPAPKPR						
806.67	2417	3	35	KLSVPTSDEEDEVPAPKPR						
605.51	2417.99	4	33.52	KLSVPTSDEEDEVPAPKPR						
			26.19	KNSSSDGTQPGHASLESGQNGTPPK	3	3	4	8	0	0
691.3	2761.19	4	26.19	KNSSSDGTQPGHASLESGQNGTPPK						
			34.37	KPSPSESPEPWKPFPAVSPEPR	2	3	5	0	0	0
666.57	2662.25	4	34.37	KPSPSESPEPWKPFPAVSPEPR						
			43.45	KRESESESDETPPAAPQLIK	2	4	6	0	0	0
			35.47	KRESESESDETPPAAPQLIK	3	4	6	8	0	0
614.77	2455.06	4	43.45	KRESESESDETPPAAPQLIK						
634.77	2535.05	4	35.47	KRESESESDETPPAAPQLIK						
634.77	2535.07	4	31.08	KRESESESDETPPAAPQLIK						
634.76	2534.99	4	27.02	KRESESESDETPPAAPQLIK						
			29	KRETDDEGEDD	1	4	0	0	0	0
750.76	1499.51	2	29	KRETDDEGEDD						
			25.76	KRSPSPSPTPEAK	2	3	5	0	0	0
785.33	1568.65	2	25.76	KRSPSPSPTPEAK						
			30.82	KSARACTVSHQESLTIK	4	2	7	9	15	0
736.54	2206.59	3	30.82	KSARACTVSHQESLTIK						
			46.15	KSLDSDESEDEEDDYQQK	2	2	5	0	0	0
820.63	2458.86	3	46.15	KSLDSDESEDEEDDYQQK						
553.25	552.25	1	25.49	KSPK						
			25.56	KSTSPKK	1	2	0	0	0	0
435.2	868.38	2	25.56	KSTSPKK						
			59.14	KTSSDDESEEDEDDLLQR	3	2	3	8	0	0
830.97	2489.89	3	59.14	KTSSDDESEEDEDDLLQR						
831.05	2490.13	3	46.44	KTSSDDESEEDEDDLLQR						
			28.13	KVEEDLKADEPSSEESDLEIDK	3	12	13	16	0	0
725.42	2897.67	4	28.13	KVEEDLKADEPSSEESDLEIDK						
			27.28	KVELSESEEDKGGK	2	5	7	0	0	0
593.58	1777.71	3	27.28	KVELSESEEDKGGK						
			52.97	KVMDSDEDDDY	1	5	0	0	0	0
755.26	1508.5	2	52.97	KVMDSDEDDDY						
			26.76	LAEGLKLTLDTIFVPNTGKKSGK	2	8	21	0	0	0
877.99	2630.94	3	26.76	LAEGLKLTLDTIFVPNTGKKSGK						
			25.74	LALSTCPAACHCPLEAPK	2	4	5	0	0	0
671.49	2011.45	3	25.74	LALSTCPAACHCPLEAPK						
			27.35	LEGSNSTSTLPLPA	4	4	6	8	9	0
579.19	1734.56	3	27.35	LEGSNSTSTLPLPA						
			28.27	LFVQDLATRVKKSAEIDSDDTGGSAAQK	1	24	0	0	0	0
779.6	3114.37	4	28.27	LFVQDLATRVKKSAEIDSDDTGGSAAQK						
			25.7	LGAESPSIASTSSTEK	2	5	7	0	0	0
589.2	1764.59	3	25.7	LGAESPSIASTSSTEK						
			30.07	LHTPMYFFLGNLSIFDLGFSSTTVPK	4	20	21	22	23	0
820.91	3279.59	4	30.07	LHTPMYFFLGNLSIFDLGFSSTTVPK						
			41.38	LKDLFDYSPPLHK	1	8	0	0	0	0
565.57	1693.69	3	41.38	LKDLFDYSPPLHK						
			33.16	LKLSPSPSSR	2	4	6	0	0	0
623.24	1244.47	2	33.16	LKLSPSPSSR						
623.24	1244.47	2	33.16	LKLSPSPSSR						
			27.07	LKTAPVTTTSAVSKSSPQPQQTSPK	2	9	23	0	0	0
686.32	2741.26	4	27.07	LKTAPVTTTSAVSKSSPQPQQTSPK						
			25.18	LLEDSEESSEETVSR	3	5	8	9	0	0
683.61	2047.8	3	25.18	LLEDSEESSEETVSR						
			28.07	LLSTVAAGLAPTTCGAVTTRASRGTTR	7	4	12	13	18	22
802.59	3206.34	4	28.07	LLSTVAAGLAPTTCGAVTTRASRGTTR						
			25.23	LNITKTTPKK	1	6	0	0	0	0
619.19	1236.36	2	25.23	LNITKTTPKK						
			25.05	LPDTKRTLLFTFNVPGSGNTYPK	4	4	7	11	20	0
729.3	2913.15	4	25.05	LPDTKRTLLFTFNVPGSGNTYPK						
			29.46	LPPGPTPLPVIGNILQIGIKDISK	2	6	23	0	0	0
668.08	2668.3	4	29.46	LPPGPTPLPVIGNILQIGIKDISK						
			29.47	LPTLASIRSSSNGKEGAPELAWK	2	6	9	0	0	0
654.49	2613.92	4	29.47	LPTLASIRSSSNGKEGAPELAWK						
			27.61	LQGSSLSSESARHKAVEFSSGAKSPSK	7	7	8	10	19	20
841.72	3362.85	4	27.61	LQGSSLSSESARHKAVEFSSGAKSPSK						
			26.49	LQVVQVLAGSCHLLQVALST	2	19	20	0	0	0
564.2	2252.75	4	26.49	LQVVQVLAGSCHLLQVALST						
			26.1	LSIVTSKSLSSPSVVSSTLQR	5	5	6	8	10	18
648.56	2590.22	4	26.1	LSIVTSKSLSSPSVVSSTLQR						
			27.51	LSLDNTKDTLLPDEVSTLSK	2	9	19	0	0	0
605.27	2417.07	4	27.51	LSLDNTKDTLLPDEVSTLSK						
			29.97	LSLSVTPGQPASISCKSSQSLLHSDGK	3	6	14	24	0	0
749.86	2995.43	4	29.97	LSLSVTPGQPASISCKSSQSLLHSDGK						
			28.44	LSLTDPLVAER	1	2	0	0	0	0
668.82	1335.63	2	28.44	LSLTDPLVAER						
			25.13	LSLVTTLTHSSINRLVPKR	2	10	11	0	0	0
578.17	2308.64	4	25.13	LSLVTTLTHSSINRLVPKR						
			30.85	LSQSKASKVSLIPK	2	4	7	0	0	0
553.57	1657.68	3	30.85	LSQSKASKVSLIPK						
			30.13	LSSLNHSYSHSHGMKKRSSDSHK	1	19	0	0	0	0
680.29	2717.12	4	30.13	LSSLNHSYSHSHGMKKRSSDSHK						
			25.58	LSSVTAADTSVYFCARGPGK	2	2	3	0	0	0
739.84	2216.49	3	25.58	LSSVTAADTSVYFCARGPGK						

			25.25	LSTPSMSGLRVYSTSVTGSREIK	4	7	13	15	17	0
701.63	2802.47	4	25.25	LSTPSMSGLRVYSTSVTGSREIK						
			48.68	LSVPTSDEEDEVPAPKPR	2	2	6	0	0	0
737.31	2208.92	3	48.68	LSVPTSDEEDEVPAPKPR						
			27.49	LTDAKRINWRTVLSGGSLYIEIPGGALPEGSK	4	2	11	17	31	0
944.2	3772.78	4	27.49	LTDAKRINWRTVLSGGSLYIEIPGGALPEGSK						
			28.16	LTISADTSKSEFSLK	5	2	7	8	10	13
690.29	2067.84	3	28.16	LTISADTSKSEFSLK						
			25.14	LTTLESPLEGISRCHINLDETQASNK	3	2	6	24	0	0
795.68	3178.68	4	25.14	LTTLESPLEGISRCHINLDETQASNK						
			25.32	LTYSSRCPAAKENGSRWIQYK	3	2	3	4	0	0
682.29	2725.13	4	25.32	LTYSSRCPAAKENGSRWIQYK						
			26.33	LVSVASTGTPAMVDANNGLVTKLK	2	6	21	0	0	0
644.5	2573.97	4	26.33	LVSVASTGTPAMVDANNGLVTKLK						
			30.5	LWGSSTQLASDGSPK	4	4	5	6	13	0
628.16	1881.45	3	30.5	LWGSSTQLASDGSPK						
			29.9	MGLLSSFTCSDEFSSLR	1	15	0	0	0	0
668.21	2001.6	3	29.9	MGLLSSFTCSDEFSSLR						
			28	MGLSLASAVLLASLLSLHLGTATR	1	16	0	0	0	0
623.27	2489.07	4	28	MGLSLASAVLLASLLSLHLGTATR						
			32.6	MGPTLAVPTPYGCIGCK	1	9	0	0	0	0
601.3	1800.87	3	32.6	MGPTLAVPTPYGCIGCK						
			27.76	MKLAASGNYVSHFSSGLISFGLSK	4	6	11	19	23	0
709.32	2833.23	4	27.76	MKLAASGNYVSHFSSGLISFGLSK						
			54.82	MLAESDESGDEESVSQTDK	2	5	8	0	0	0
776.94	2327.8	3	54.82	MLAESDESGDEESVSQTDK						
			39.83	MNEEISSDSESESLAPR	3	6	7	9	0	0
735.83	2204.47	3	39.83	MNEEISSDSESESLAPR						
			27.55	NDKSEEEQSSSSVKKDETNVK	3	4	9	12	0	0
677.27	2705.03	4	27.55	NDKSEEEQSSSSVKKDETNVK						
			55.7	NEEDEGHSNSSPR	1	11	0	0	0	0
			32.74	NEEDEGHSNSSPR	2	10	11	0	0	0
804.33	1606.64	2	55.7	NEEDEGHSNSSPR						
844.28	1686.55	2	32.74	NEEDEGHSNSSPR						
			43.99	NKEESSDDEDKESEEEPPKK	3	5	6	13	0	0
686.5	2741.97	4	43.99	NKEESSDDEDKESEEEPPKK						
			29.42	NQASDSENEELPKPR	2	4	6	0	0	0
648.6	1942.77	3	29.42	NQASDSENEELPKPR						
			26.86	NVGLLLIDTRLLR	1	9	0	0	0	0
802.23	1602.45	2	26.86	NVGLLLIDTRLLR						
			27.25	NVNIYRDSAIPVESDTDDEGAPR	1	16	0	0	0	0
678.53	2710.08	4	27.25	NVNIYRDSAIPVESDTDDEGAPR						
			26.48	NVSSAGHGPR	2	3	4	0	0	0
578.22	1154.42	2	26.48	NVSSAGHGPR						
			27.33	NVTTESSHPDILRTLK	3	3	7	14	0	0
698.32	2091.94	3	27.33	NVTTESSHPDILRTLK						
			30.8	QDDSPKSSEETIQPK	2	4	11	0	0	0
640.6	1918.77	3	30.8	QDDSPKSSEETIQPK						
			25.12	QESSMSESK	2	3	8	0	0	0
607.17	1212.32	2	25.12	QESSMSESK						
			30.08	QKSDAEEDGGTVSQEEEDRKPK	2	3	13	0	0	0
688.05	2748.17	4	30.08	QKSDAEEDGGTVSQEEEDRKPK						
			25.84	QKSEEPSVSIPFLQTALLR	1	9	0	0	0	0
567.21	2264.83	4	25.84	QKSEEPSVSIPFLQTALLR						
			35.17	QLSESFK	1	5	0	0	0	0
473.23	944.44	2	35.17	QLSESFK						
			37.32	QLSSGVSEIR	1	3	0	0	0	0
592.25	1182.49	2	37.32	QLSSGVSEIR						
			27.32	QLWDWSKHNLTITQGKLFFHYNPK	2	11	21	0	0	0
			28.54	QNHVTPSRHRNSSSESAIVPK	2	5	12	0	0	0
840.31	2517.91	3	28.54	QNHVTPSRHRNSSSESAIVPK						
			26.35	QPNKQWKKSQTSTNPK	2	9	12	0	0	0
692.03	2073.08	3	26.35	QPNKQWKKSQTSTNPK						
			32.65	QPTPPFFGR	1	3	0	0	0	0
570.72	1139.43	2	32.65	QPTPPFFGR						
			28.09	QSHSSSSPHPK	2	2	4	0	0	0
676.74	1351.47	2	28.09	QSHSSSSPHPK						
			25.49	QSPK	1	2	0	0	0	0
553.25	552.25	1	25.49	QSPK						
			79.09	QSQQPMKPISPVKDPVSPASQK	2	2	17	0	0	0
642.29	2565.14	4	79.09	QSQQPMKPISPVKDPVSPASQK						
			28.84	RASGQAFELILSPR	2	3	12	0	0	0
578.23	1731.66	3	28.84	RASGQAFELILSPR						
			27.08	RASPSNSR	1	3	0	0	0	0
484.71	967.4	2	27.08	RASPSNSR						
			28.5	RASPSPPPK	2	3	5	0	0	0
555.73	1109.44	2	28.5	RASPSPPPK						
			25.15	RCLTLMDRGFIFNLINDYISGFSPK	2	4	23	0	0	0
781.33	3121.28	4	25.15	RCLTLMDRGFIFNLINDYISGFSPK						
			32.08	RDSGVGASLTRSNR	4	3	8	10	12	0
608.25	1821.73	3	32.08	RDSGVGASLTRSNR						
			31.48	RESESESDETPPAAPQLIK	2	3	5	0	0	0
776.67	2326.99	3	31.48	RESESESDETPPAAPQLIK						
			25.44	RESPSPAPKPR	2	3	5	0	0	0
705.28	1408.55	2	25.44	RESPSPAPKPR						
			28.49	REYSSVFSHGVSITR	2	8	12	0	0	0

638.29	1911.85	3	28.49	REYSSVFSHGVSITR						
			28.51	RGAHLTESVAAPDSGASSPAAAEPGEK	3	6	8	14	0	0
718.8	2871.19	4	28.51	RGAHLTESVAAPDSGASSPAAAEPGEK						
			25.22	RHCCSSAEAETQTCYTSVK	6	5	6	13	15	16
657.39	2625.55	4	25.22	RHCCSSAEAETQTCYTSVK						
			35.03	RHFSSVSMETFVPK	3	4	5	7	0	0
640.61	1918.81	3	35.03	RHFSSVSMETFVPK						
			31.56	RHSHSHSPMSTR	3	3	5	7	0	0
837.31	1672.6	2	31.56	RHSHSHSPMSTR						
			29.98	RKGSGSEQEGEDEEGGER	2	4	6	0	0	0
736.61	2206.8	3	29.98	RKGSGSEQEGEDEEGGER						
			43.44	RKSLSDSESDDSK	2	3	5	0	0	0
842.32	1682.63	2	43.44	RKSLSDSESDDSK						
			46.12	RKTSSDDESEEDEDDLLQR	1	5	0	0	0	0
829.61	2485.82	3	46.12	RKTSSDDESEEDEDDLLQR						
			38.09	RLSPSASPPR	3	3	5	7	0	0
661.22	1320.42	2	38.09	RLSPSASPPR						
661.24	1320.46	2	29.65	RLSPSASPPR						
661.23	1320.44	2	27.02	RLSPSASPPR						
			37.03	RPDHSGGSPSPPTSEPAR	2	8	10	0	0	0
678.61	2032.79	3	37.03	RPDHSGGSPSPPTSEPAR						
			27.96	RPHTPTPGIYMGRPTYGSSR	1	6	0	0	0	0
582.21	2324.82	4	27.96	RPHTPTPGIYMGRPTYGSSR						
			39.12	RQSPSPSTRPIR	2	3	5	0	0	0
778.33	1554.64	2	39.12	RQSPSPSTRPIR						
			27.58	RRKTPSPTAPEAMK	1	4	0	0	0	0
559.6	1675.77	3	27.58	RRKTPSPTAPEAMK						
			29.46	RRSPSLSSK	2	3	5	0	0	0
596.25	1190.49	2	29.46	RRSPSLSSK						
			32.74	RRSPSPAPPPR	2	3	5	0	0	0
696.28	1390.55	2	32.74	RRSPSPAPPPR						
696.29	1390.56	2	28.4	RRSPSPAPPPR						
			34.45	RRSPSPYYSR	2	3	7	0	0	0
721.73	1441.45	2	34.45	RRSPSPYYSR						
721.74	1441.46	2	27.1	RRSPSPYYSR						
			28.4	RRSQSIEQESQEK	2	3	5	0	0	0
607.57	1819.68	3	28.4	RRSQSIEQESQEK						
			36.1	RRTASPPPPPK	1	3	0	0	0	0
			26.57	RRTASPPPPPK	2	3	5	0	0	0
648.76	1295.51	2	36.1	RRTASPPPPPK						
689.79	1377.57	2	26.57	RRTASPPPPPK						
			28.7	RSAAESGSR	1	8	0	0	0	0
514.22	1026.42	2	28.7	RSAAESGSR						
			26.87	RSPAKIWPTTKRPAITPANNPK	2	2	9	0	0	0
655.42	2617.66	4	26.87	RSPAKIWPTTKRPAITPANNPK						
			34.87	RVSHSPPPK	2	3	5	0	0	0
589.69	1177.37	2	34.87	RVSHSPPPK						
589.71	1177.42	2	34.51	RVSHSPPPK						
			39.91	RYSPSPPPK	2	3	5	0	0	0
601.69	1201.37	2	39.91	RYSPSPPPK						
601.73	1201.46	2	37.46	RYSPSPPPK						
			25.28	SAATHVSISLFNQISIGIQVHSPK	4	1	7	15	22	0
717.62	2866.44	4	25.28	SAATHVSISLFNQISIGIQVHSPK						
			35.62	SAFTVKLSGK	2	1	8	0	0	0
605.72	1209.43	2	35.62	SAFTVKLSGK						
			25.09	SASGSSSDRSRSATPPATR	7	1	5	6	7	10
617.2	2464.76	4	25.09	SASGSSSDRSRSATPPATR						
			28.34	SASQSSLDKLDQELK	2	3	5	0	0	0
622.26	1863.75	3	28.34	SASQSSLDKLDQELK						
			27.98	SATRPSPSPER	2	6	8	0	0	0
686.74	1371.47	2	27.98	SATRPSPSPER						
			25.5	SAVFGGGTKLTVLGQPKAAPSVTLFPPSSK	3	1	11	21	0	0
800.08	3196.31	4	25.5	SAVFGGGTKLTVLGQPKAAPSVTLFPPSSK						
			25.32	SDTPISAVRPLAPGPSSSPGAGR	2	3	16	0	0	0
788.79	2363.34	3	25.32	SDTPISAVRPLAPGPSSSPGAGR						
			25.44	SEDRRSSEEREAGEI	2	6	7	0	0	0
669.92	2006.73	3	25.44	SEDRRSSEEREAGEI						
			33.76	SENGLEFTSSDSANTVATK	4	8	9	15	18	0
778.28	2331.81	3	33.76	SENGLEFTSSDSANTVATK						
			25.18	SEVSSGSARGK	2	4	5	0	0	0
627.25	1252.48	2	25.18	SEVSSGSARGK						
			25.13	SGAEAQTPK	2	1	7	0	0	0
538.2	1074.39	2	25.13	SGAEAQTPK						
			35.72	SGAGSSPETK	1	6	0	0	0	0
515.19	1028.37	2	35.72	SGAGSSPETK						
			41.57	SGDETPGSEVPGDK	1	1	0	0	0	0
762.8	1523.58	2	41.57	SGDETPGSEVPGDK						
			37.77	SGEGEVSGLMR	1	1	0	0	0	0
622.24	1242.46	2	37.77	SGEGEVSGLMR						
			31.63	SGKLKDLSR	2	1	8	0	0	0
596.2	1190.39	2	31.63	SGKLKDLSR						
			27.29	SGPKPFSAPKPQTSPSPK	1	13	0	0	0	0
645.01	1932.02	3	27.29	SGPKPFSAPKPQTSPSPK						
			32.87	SHNNFVAILDLPEGEHQYK	1	1	0	0	0	0
783.39	2347.16	3	32.87	SHNNFVAILDLPEGEHQYK						
			35.46	SIDQDYER	1	1	0	0	0	0

581.22	1160.42	2	35.46	SIDQDYER						
			26.7	SKDEYEKSR	2	1	8	0	0	0
679.26	1356.51	2	26.7	SKDEYEKSR						
			25.45	SKDKAGTEVTK	2	1	7	0	0	0
683.56	1365.11	2	25.45	SKDKAGTEVTK						
			34.36	SKGDSDISDEEAAQQSK	3	1	5	8	0	0
706.93	2117.77	3	34.36	SKGDSDISDEEAAQQSK						
706.93	2117.77	3	34.36	SKGDSDISDEEAAQQSK						
			31.42	SKSPPKSPEEEGAVSS	4	1	3	7	15	0
664.57	1990.67	3	31.42	SKSPPKSPEEEGAVSS						
664.56	1990.65	3	30.75	SKSPPKSPEEEGAVSS						
			25.19	SLATAFQTSGLGK	3	1	4	9	0	0
768.1	1534.19	2	25.19	SLATAFQTSGLGK						
			28.1	SLCGIIPGLSSIFLPR	2	1	10	0	0	0
616.28	1845.81	3	28.1	SLCGIIPGLSSIFLPR						
			31.95	SLDSDESEDEEDDYQQK	2	4	7	0	0	0
778.25	2331.73	3	31.95	SLDSDESEDEEDDYQQK						
			41.18	SLDSDESEDEEDDYQQKR	2	4	7	0	0	0
829.96	2486.86	3	41.18	SLDSDESEDEEDDYQQKR						
			26.88	SLPGFSHMAPLPK	2	1	6	0	0	0
777.93	1553.84	2	26.88	SLPGFSHMAPLPK						
			34.06	SLSDSESDDSK	2	3	7	0	0	0
700.23	1398.44	2	34.06	SLSDSESDDSK						
			28.61	SLSTSGESLYHVLGLDK	2	1	4	0	0	0
669.59	2005.74	3	28.61	SLSTSGESLYHVLGLDK						
			35.22	SLSYSPVER	2	3	5	0	0	0
613.21	1224.41	2	35.22	SLSYSPVER						
			29.42	SLTRSSALLQASLVR	1	12	0	0	0	0
566.2	1695.58	3	29.42	SLTRSSALLQASLVR						
			26.38	SLVLSSATVPDQQALGRCEGPFLLLQSSGK	3	1	27	28	0	0
846.41	3381.61	4	26.38	SLVLSSATVPDQQALGRCEGPFLLLQSSGK						
			26.19	SNSKER	1	3	0	0	0	0
414.68	827.34	2	26.19	SNSKER						
			38.8	SPARTPPSEEDSAEAER	2	1	5	0	0	0
691.63	2071.87	3	38.8	SPARTPPSEEDSAEAER						
			31.94	SPEDSRPPK	2	1	5	0	0	0
608.31	1214.61	2	31.94	SPEDSRPPK						
			25.52	SPEIHR	1	1	0	0	0	0
423.69	845.37	2	25.52	SPEIHR						
423.69	845.37	2	25.52	SPEIHR						
			33.88	SPGHMVILDQTK	1	1	0	0	0	0
717.32	1432.62	2	33.88	SPGHMVILDQTK						
			25.72	SPKVDVPSYLTCLADLK	2	1	8	0	0	0
684.69	2051.04	3	25.72	SPKVDVPSYLTCLADLK						
			26.17	SPPGPHTAVLALEDEEVK	1	1	0	0	0	0
680.58	2038.73	3	26.17	SPPGPHTAVLALEDEEVK						
			25.59	SPPGSDRGSTGSSDLNDQEPGPR	4	1	9	10	12	0
676.25	2700.96	4	25.59	SPPGSDRGSTGSSDLNDQEPGPR						
			33.73	SPQLSDFGLER	1	1	0	0	0	0
685.78	1369.54	2	33.73	SPQLSDFGLER						
			28.55	SPSKENIASVLENYHTESK	2	1	3	0	0	0
588.13	2348.51	4	28.55	SPSKENIASVLENYHTESK						
			34.91	SPSLSSK	1	1	0	0	0	0
799.7	798.69	1	34.91	SPSLSSK						
			42.16	SPSPEPIYNSEGK	2	1	3	0	0	0
803.76	1605.5	2	42.16	SPSPEPIYNSEGK						
			43.97	SPSPKPTK	2	1	3	0	0	0
508.21	1014.4	2	43.97	SPSPKPTK						
508.14	1014.27	2	25.32	SPSPKPTK						
			34.71	SPSPYYSR	2	1	3	0	0	0
565.67	1129.33	2	34.71	SPSPYYSR						
565.67	1129.33	2	34.71	SPSPYYSR						
			27.55	SPTPPSSAGLGSNSAPPIPDSRLGEENK	3	1	7	12	0	0
765.31	3057.2	4	27.55	SPTPPSSAGLGSNSAPPIPDSRLGEENK						
			30.75	SPVFSDEDSDLDFDISK	3	1	5	9	0	0
751.88	2252.62	3	30.75	SPVFSDEDSDLDFDISK						
			25.66	SPVGKSPPSTGSTYGSSQK	2	1	6	0	0	0
676.26	2025.77	3	25.66	SPVGKSPPSTGSTYGSSQK						
			30.14	SPVGKSPPSTGSTYGSSQK	5	1	6	9	12	16
567.15	2264.55	4	30.14	SPVGKSPPSTGSTYGSSQK						
			30.05	SPVPSAFSDQSR	1	1	0	0	0	0
693.28	1384.55	2	30.05	SPVPSAFSDQSR						
			40.66	SQSESSDEVTELDLSHGK	2	1	5	0	0	0
731.29	2190.84	3	40.66	SQSESSDEVTELDLSHGK						
			25.79	SRASPATHR	2	1	4	0	0	0
578.72	1155.43	2	25.79	SRASPATHR						
			29.52	SRSFDYNYR	2	1	3	0	0	0
698.23	1394.44	2	29.52	SRSFDYNYR						
			63.01	SRSPESQVIGENTK	2	1	3	0	0	0
867.31	1732.61	2	63.01	SRSPESQVIGENTK						
578.54	1732.61	3	26.01	SRSPESQVIGENTK						
			36.12	SRSPGRPPK	2	1	3	0	0	0
578.24	1154.47	2	36.12	SRSPGRPPK						
578.22	1154.43	2	29.63	SRSPGRPPK						
			27.42	SRSPLAIR	2	1	3	0	0	0
537.21	1072.41	2	27.42	SRSPLAIR						

			39.02	SRSPLDKDTYPPSASVVGASVGGHR	2	1	3	0	0	0
686.29	2741.12	4	39.02	SRSPLDKDTYPPSASVVGASVGGHR						
			26.37	SRSPPPVSK	2	1	3	0	0	0
564.71	1127.42	2	26.37	SRSPPPVSK						
			54.57	SRSPSSPELNNK	3	1	3	5	0	0
792.28	1582.54	2	54.57	SRSPSSPELNNK						
792.3	1582.58	2	27.62	SRSPSSPELNNK						
			27.17	SRSRTPTTR	4	1	3	7	8	0
698.26	1394.5	2	27.17	SRSRTPTTR						
			71.36	SRTGSESSQTGTSTTSSR	2	3	5	0	0	0
668.92	2003.74	3	71.36	SRTGSESSQTGTSTTSSR						
			25.03	SRTPPR	1	3	0	0	0	0
404.19	806.36	2	25.03	SRTPPR						
			25.09	SRTSPVTR	2	1	3	0	0	0
539.2	1076.39	2	25.09	SRTSPVTR						
			36.66	SRVSVSPGR	2	1	6	0	0	0
559.73	1117.44	2	36.66	SRVSVSPGR						
			29.24	SSEKSDRSSR	3	1	8	9	0	0
710.23	1418.45	2	29.24	SSEKSDRSSR						
			26.35	SSFSEGQTLTVTSGAK	4	1	2	10	13	0
650.26	1947.75	3	26.35	SSFSEGQTLTVTSGAK						
			28.65	SSFSSSSELSSSHGPGFSRLNR	4	1	2	4	18	0
666.25	2660.99	4	28.65	SSFSSSSELSSSHGPGFSRLNR						
			25.71	SSFSYEPYYSTSYK	2	1	2	0	0	0
632.56	1894.66	3	25.71	SSFSYEPYYSTSYK						
			39.78	SSGHSSSELSPDAVEK	2	7	10	0	0	0
611.55	1831.64	3	39.78	SSGHSSSELSPDAVEK						
			31.62	SSLSPPSSAYERGTK	7	1	2	4	7	8
718.95	2153.83	3	31.62	SSLSPPSSAYERGTK						
			45.14	SSSFGNFDR	1	3	0	0	0	0
562.66	1123.32	2	45.14	SSSFGNFDR						
797.9	3187.56	4	27.32	SSSKQSSSEEDALTEPRSSIKISAFK						
			51.42	SSSPAPADIAQTVQEDLR	1	1	0	0	0	0
674.61	2020.81	3	51.42	SSSPAPADIAQTVQEDLR						
			29.25	SSSPPPRK	1	3	0	0	0	0
475.22	948.42	2	29.25	SSSPPPRK						
			29.59	SSTLTLHQR	3	2	3	5	0	0
432.9	1295.69	3	29.59	SSTLTLHQR						
			26.74	SSTSCGTWTASGLPSLGHLPR	5	1	4	9	11	15
633.19	2528.75	4	26.74	SSTSCGTWTASGLPSLGHLPR						
			29.84	SSVSKLSNPK	3	1	2	7	0	0
651.19	1300.37	2	29.84	SSVSKLSNPK						
			29.1	STETFKK	2	2	4	0	0	0
515.22	1028.42	2	29.1	STETFKK						
			27.75	STLLNILSGLSVPTKGSVTIYNNK	4	1	11	14	19	0
714.33	2853.28	4	27.75	STLLNILSGLSVPTKGSVTIYNNK						
			26.96	STPNAEDNGMEEETDDGPLLVPRVK	2	1	2	0	0	0
747.3	2985.19	4	26.96	STPNAEDNGMEEETDDGPLLVPRVK						
			28.8	STPSHGSVSSLNSTGSLSPK	2	1	18	0	0	0
701.6	2101.77	3	28.8	STPSHGSVSSLNSTGSLSPK						
			27.24	STPTKREIMLTPVTVAYSPK	4	1	14	17	18	0
856.39	2566.16	3	27.24	STPTKREIMLTPVTVAYSPK						
			27.38	STQHSKK	1	5	0	0	0	0
455.13	908.24	2	27.38	STQHSKK						
			33.95	STSINAFTQQSGK	2	1	8	0	0	0
772.29	1542.56	2	33.95	STSINAFTQQSGK						
			25.86	STSLGSSTPVFSMSSPISR	5	1	8	14	15	18
781.34	2341	3	25.86	STSLGSSTPVFSMSSPISR						
			26.09	STSLSLGRSKTLLGLKTVR	3	1	9	11	0	0
757.32	2268.95	3	26.09	STSLSLGRSKTLLGLKTVR						
			25.09	STSVKVSCK	3	1	2	3	0	0
596.22	1190.43	2	25.09	STSVKVSCK						
			25.08	STSVTTTSSASVTTTSNASGRR	10	1	7	8	9	11
743.91	2971.6	4	25.08	STSVTTTSSASVTTTSNASGRR						
			27.88	STVADTSIQKLEKSKQTLPGLSNGSQIK	2	1	17	0	0	0
790.61	3158.42	4	27.88	STVADTSIQKLEKSKQTLPGLSNGSQIK						
			57.93	SVASNQSEMEFSSLQDMPK	3	1	4	7	0	0
804.65	2410.94	3	57.93	SVASNQSEMEFSSLQDMPK						
			25.72	SVDAYDSYWESRKPPLK	4	1	5	7	8	0
805.92	2414.75	3	25.72	SVDAYDSYWESRKPPLK						
			26.8	SVHGTFSPDHGTLLQK	4	1	5	7	12	0
691.3	2070.87	3	26.8	SVHGTFSPDHGTLLQK						
			25.49	SVLPIASETLK	2	1	9	0	0	0
673.19	1344.36	2	25.49	SVLPIASETLK						
			45.53	SVSGSPEPAAK	2	1	5	0	0	0
			54.37	SVSGSPEPAAK	3	1	3	5	0	0
649.22	1296.42	2	54.37	SVSGSPEPAAK						
609.24	1216.46	2	45.53	SVSGSPEPAAK						
649.55	1297.08	2	41.72	SVSGSPEPAAK						
609.22	1216.43	2	41.37	SVSGSPEPAAK						
			26.03	SVSTPSEAGSQDSGDLGPLTR	2	1	13	0	0	0
759.58	2275.71	3	26.03	SVSTPSEAGSQDSGDLGPLTR						
			25.34	SVSVATGLNMMK	2	1	6	0	0	0
706.29	1410.56	2	25.34	SVSVATGLNMMK						
			27.88	SVTVTSAKTSNQLHCTLGVEISPK	5	1	6	9	16	22
732.98	2927.88	4	27.88	SVTVTSAKTSNQLHCTLGVEISPK						

			32.2	SWSPPPEVSR	1	3	0	0	0	0
625.25	1248.49	2	32.2	SWSPPPEVSR						
			28.34	SYSPDGKESPSDKK	2	1	9	0	0	0
870.79	1739.56	2	28.34	SYSPDGKESPSDKK						
			29.7	TANSAPR	1	1	0	0	0	0
405.2	808.39	2	29.7	TANSAPR						
			25.12	TCACALQVLSAILEGSK	3	1	10	16	0	0
659.31	1974.92	3	25.12	TCACALQVLSAILEGSK						
			28.74	TDAPQADVPK	1	1	0	0	0	0
			26.58	TDVSAADIVLSKTAETDVLFNKVESSGK	6	1	4	11	13	25
872.91	3487.59	4	26.58	TDVSAADIVLSKTAETDVLFNKVESSGK						
			28.51	TEAGSPTGALSNMPPATSLER	4	1	5	17	18	0
612.72	2446.85	4	28.51	TEAGSPTGALSNMPPATSLER						
			36.4	TEASPESMLSPSHGSNPIEDPLEAETQHK	2	4	7	0	0	0
844.92	3375.65	4	36.4	TEASPESMLSPSHGSNPIEDPLEAETQHK						
			29.06	TEPSPK	2	1	4	0	0	0
424.17	846.33	2	29.06	TEPSPK						
			38.98	TFSATVR	1	3	0	0	0	0
438.2	874.38	2	38.98	TFSATVR						
			27.98	TGLGVTSGETGTSGRK	3	7	12	13	0	0
592.9	1775.67	3	27.98	TGLGVTSGETGTSGRK						
			28.03	TGTINGSLLCNKSTGQCPCK	5	1	3	7	13	14
610.2	2436.77	4	28.03	TGTINGSLLCNKSTGQCPCK						
			51.66	TGVTSTSDSEEEGDDQEGEK	2	5	7	0	0	0
795.96	2384.87	3	51.66	TGVTSTSDSEEEGDDQEGEK						
			30.28	TIASDSEEEAGK	2	4	6	0	0	0
733.78	1465.55	2	30.28	TIASDSEEEAGK						
			25.11	TLCTIYAEKTTSSAPPALAR	3	10	12	13	0	0
788.28	2361.83	3	25.11	TLCTIYAEKTTSSAPPALAR						
			25.03	TLIGDSSILPK	2	1	6	0	0	0
666.59	1331.16	2	25.03	TLIGDSSILPK						
			25.18	TLSWAAQTGAPR	1	1	0	0	0	0
676.94	1351.86	2	25.18	TLSWAAQTGAPR						
			32.82	TPPKSPGLTPK	2	1	9	0	0	0
648.7	1295.39	2	32.82	TPPKSPGLTPK						
			35.18	TPSKPPAQLSPSVPK	2	10	12	0	0	0
570.06	1707.16	3	35.18	TPSKPPAQLSPSVPK						
			29.52	TPSPPPPIPEDIALGK	2	1	3	0	0	0
610.93	1829.76	3	29.52	TPSPPPPIPEDIALGK						
			27.21	TPTSPLK	1	4	0	0	0	0
419.21	836.4	2	27.21	TPTSPLK						
			26.39	TQTPPVSPAPQPTEER	2	3	7	0	0	0
646.27	1935.78	3	26.39	TQTPPVSPAPQPTEER						
			28.67	TSFPLSESQTLLSSALVPK	2	2	6	0	0	0
731.31	2190.92	3	28.67	TSFPLSESQTLLSSALVPK						
			25.57	TSLGITSVLTMTTLGTFSR	5	1	6	13	16	18
801.02	2400.03	3	25.57	TSLGITSVLTMTTLGTFSR						
			29.71	TSPLKDNPSPEPQLDDIKR	2	2	9	0	0	0
595.77	2379.06	4	29.71	TSPLKDNPSPEPQLDDIKR						
			25.56	TSRSCSR	2	4	6	0	0	0
485.7	969.39	2	25.56	TSRSCSR						
			29.19	TSSLATPRPLSSK	3	2	3	6	0	0
799.7	1597.39	2	29.19	TSSLATPRPLSSK						
			27.19	TSSLESLNSNSGVGGTIK	4	1	6	11	16	0
700.12	2097.33	3	27.19	TSSLESLNSNSGVGGTIK						
			29.96	TSSPLCTSSAITRYLNPCTLFFK	6	2	8	9	12	14
761.53	3042.1	4	29.96	TSSPLCTSSAITRYLNPCTLFFK						
			30.73	TSSPPRK	1	3	0	0	0	0
433.7	865.39	2	30.73	TSSPPRK						
			27.22	TSSSFYVFGTGTK	4	1	4	10	12	0
572.24	1713.7	3	27.22	TSSSFYVFGTGTK						
			26.37	TSSSKASPEK	3	3	4	7	0	0
644.73	1287.44	2	26.37	TSSSKASPEK						
			25.03	TSSTATAIQGSDATTSTPK	7	1	3	4	6	11
805.28	2412.82	3	25.03	TSSTATAIQGSDATTSTPK						
469.69	937.36	2	38.16	TSSTLKK						
			38.16	TSSTLQK	2	3	4	0	0	0
			27.08	TTGSIVIARPLDTR	2	1	2	0	0	0
563.2	1686.57	3	27.08	TTGSIVIARPLDTR						
			26.16	TTGSKASASPSTSSTSSRPK	11	1	2	7	9	11
705.24	2816.94	4	26.16	TTGSKASASPSTSSTSSRPK						
			25.1	TTLLGTIFSPVFNFFSPANK	4	1	2	9	16	0
634.54	2534.12	4	25.1	TTLLGTIFSPVFNFFSPANK						
			25.58	TTPEHTVSFTCESHGFSPRDITLK	5	1	8	10	13	22
787.28	3145.08	4	25.58	TTPEHTVSFTCESHGFSPRDITLK						
			35.48	TTSPGGRPSARSPLSPTETFSWPDVR	5	1	12	15	19	21
808.06	3228.21	4	35.48	TTSPGGRPSARSPLSPTETFSWPDVR						
			30.21	TTSSSDLTTSSSSSGPR	8	3	8	9	10	11
582.3	2325.17	4	30.21	TTSSSDLTTSSSSSGPR						
776.21	2325.59	3	25.14	TTSSSDLTTSSSSSGPR						
			28.28	TTSTLSLSAEDSQSTESNMSVPK	6	1	2	3	14	17
734.99	2935.93	4	28.28	TTSTLSLSAEDSQSTESNMSVPK						
			25.96	TTSTPSDTSPFIIPNDTPSSRKK	8	1	2	3	4	6
790.31	3157.2	4	25.96	TTSTPSDTSPFIIPNDTPSSRKK						
			26.33	TTSTPSFSPSVHNVTGTVSQK	7	1	2	8	10	15
684.47	2733.84	4	26.33	TTSTPSFSPSVHNVTGTVSQK						

684.47	2733.84	4	26.33	TTSTPSFSPSVHNVTGTVSQK						
			26.22	TTTLTPTSDISTGSFK	5	5	8	11	12	14
695.29	2082.84	3	26.22	TTTLTPTSDISTGSFK						
			26.61	TTVGLVSLISR	3	1	2	7	0	0
700.81	1399.61	2	26.61	TTVGLVSLISR						
			26.62	TVTITWKEIPK	1	1	0	0	0	0
712.89	1423.77	2	26.62	TVTITWKEIPK						
			30.97	VAGSDAGR	1	4	0	0	0	0
420.19	838.37	2	30.97	VAGSDAGR						
			26.28	VAKVTGGAASKLSK	3	5	10	13	0	0
785.3	1568.58	2	26.28	VAKVTGGAASKLSK						
			31.06	VALGITTVLTMTTQSSGSRASLPK	5	6	10	12	15	16
709.01	2832.03	4	31.06	VALGITTVLTMTTQSSGSRASLPK						
			25.12	VALGITTVLTMTTQSSGSRASLPK	7	6	7	10	15	16
749.3	2993.19	4	25.12	VALGITTVLTMTTQSSGSRASLPK						
			25.99	VALGITTVLTMTTQSSGSRASLPK	8	6	10	12	13	15
769.08	3072.29	4	25.99	VALGITTVLTMTTQSSGSRASLPK						
			30.73	VALISPK	1	5	0	0	0	0
411.18	820.34	2	30.73	VALISPK						
411.18	820.34	2	30.33	VALISPK						
411.17	820.32	2	27.81	VALISPK						
			26.65	VAPSWPESHSSADSASLAKK	4	4	8	10	11	0
605.25	2416.98	4	26.65	VAPSWPESHSSADSASLAKK						
			28.79	VFPSVASPQK	1	7	0	0	0	0
577.24	1152.47	2	28.79	VFPSVASPQK						
			26.4	VGDIHILEVTNNLEHKSTFSISNFLNK	3	10	17	18	0	0
842.1	3364.37	4	26.4	VGDIHILEVTNNLEHKSTFSISNFLNK						
			25.71	VIPAQNSADLPESTLLPNKCSGKTQPK	1	14	0	0	0	0
740.32	2957.23	4	25.71	VIPAQNSADLPESTLLPNKCSGKTQPK						
			30.92	VKFLWNNNVINPTLPK	1	13	0	0	0	0
664.27	1989.8	3	30.92	VKFLWNNNVINPTLPK						
			32.18	VLSDSEDEEKDADVPGTSTR	2	3	5	0	0	0
808.24	2421.69	3	32.18	VLSDSEDEEKDADVPGTSTR						
			25.54	VLTTTALSTVSSGVQRVLVNSASAQK	4	4	12	21	23	0
738.79	2951.13	4	25.54	VLTTTALSTVSSGVQRVLVNSASAQK						
			27.72	VNVALVYPPTPTVISPCSKK	2	7	18	0	0	0
572.73	2286.89	4	27.72	VNVALVYPPTPTVISPCSKK						
			26.92	VPHCQSPTSILPSTAAPYPPK	4	6	9	13	14	0
632.22	2524.84	4	26.92	VPHCQSPTSILPSTAAPYPPK						
			27.41	VPPPSPKSSGPKRALPPK	2	8	9	0	0	0
672.11	2013.31	3	27.41	VPPPSPKSSGPKRALPPK						
			25.49	VQNSKMSEASGIQQEDSYPK	4	4	7	10	18	0
651.32	2601.23	4	25.49	VQNSKMSEASGIQQEDSYPK						
			33.23	VSAIDCPATCGAESVVVVTSLRDK	3	9	14	20	0	0
679.77	2715.06	4	33.23	VSAIDCPATCGAESVVVVTSLRDK						
			28.96	VSFSSTKTPK	3	2	5	6	0	0
668.25	1334.49	2	28.96	VSFSSTKTPK						
			33.49	VSGGSGSR	1	7	0	0	0	0
400.17	798.33	2	33.49	VSGGSGSR						
			25.19	VSIASREYSASSITYVVTGLK	3	8	9	14	0	0
833.49	2497.44	3	25.19	VSIASREYSASSITYVVTGLK						
			25.87	VTDGESATSKNGK	2	2	8	0	0	0
748.3	1494.58	2	25.87	VTDGESATSKNGK						
			29.6	VTEEELMTPKQPK	1	2	0	0	0	0
833.65	1665.28	2	29.6	VTEEELMTPKQPK						
			26.2	VTITCRTSQGIRNDLGWYQQKPGKAPK	2	2	7	0	0	0
809.01	3232	4	26.2	VTITCRTSQGIRNDLGWYQQKPGKAPK						
			27.11	VTLSNMTSTPGAEDSGSPKGQPAQPK	5	4	7	8	9	15
757.78	3027.11	4	27.11	VTLSNMTSTPGAEDSGSPKGQPAQPK						
			31.09	VTMTRNSSISTAYMELSSLR	9	2	4	7	8	10
749.58	2994.29	4	31.09	VTMTRNSSISTAYMELSSLR						
			37.98	VVEAVNSDSDSEFGIPK	2	7	9	0	0	0
674.87	2021.58	3	37.98	VVEAVNSDSDSEFGIPK						
			25.07	VVSSTRLVNPPPRSSGNAATSGNAATK	2	5	21	0	0	0
704.29	2813.14	4	25.07	VVSSTRLVNPPPRSSGNAATSGNAATK						
			28.38	VVYSPVDGTRPSESIVVPGNTR	3	4	12	21	0	0
871.11	2610.3	3	28.38	VVYSPVDGTRPSESIVVPGNTR						
			25.83	WVVTDSKYLSKPPK	2	4	10	0	0	0
612.77	1835.29	3	25.83	WVVTDSKYLSKPPK						
			32.8	WWTLAGQEITVTFNQFTKYSYK	4	10	12	17	20	0
765.75	3058.97	4	32.8	WWTLAGQEITVTFNQFTKYSYK						
			26.62	YKEESDSD	2	5	7	0	0	0
601.68	1201.36	2	26.62	YKEESDSD						
			31.23	YSPSQNSPIHHIPSR	2	2	7	0	0	0
631.91	1892.71	3	31.23	YSPSQNSPIHHIPSR						

Table 2: Details of phosphopeptides identified from 2e6 cell equivalent on large (670x530µm) IMAC column (Fig. 2B)

pep_mz	pep_mr	pep_z	pep_score	pep_sequence	Num Mods	ModPos1	ModPos2	ModPos3	ModPos4	ModPos5
			40.62	AAESETPGKSPEK	1	10	0	0	0	0
733.8	1465.59	2	40.62	AAESETPGKSPEK						
			42.14	AALAPAKESPR	1	9	0	0	0	0
406.87	1217.58	3	42.14	AALAPAKESPR						
609.78	1217.55	2	33.3	AALAPAKESPR						
406.87	1217.6	3	31.32	AALAPAKESPR						
			26.7	AAPQSRK	1	5	0	0	0	0
426.21	850.42	2	26.7	AAPQSRK						
			45.49	AASAPAKESPR	1	9	0	0	0	0
596.77	1191.52	2	45.49	AASAPAKESPR						
596.74	1191.47	2	38.84	AASAPAKESPR						
			25.7	AASLTEDR	1	3	0	0	0	0
493.22	984.43	2	25.7	AASLTEDR						
			50.56	AASPSPQSVR	2	3	5	0	0	0
587.21	1172.41	2	50.56	AASPSPQSVR						
587.19	1172.37	2	32.46	AASPSPQSVR						
			27.92	ADRDQSPFSK	1	6	0	0	0	0
636.74	1271.47	2	27.92	ADRDQSPFSK						
			31.11	AEEDEILNRSPR	1	10	0	0	0	0
789.8	1577.58	2	31.11	AEEDEILNRSPR						
789.75	1577.49	2	28.86	AEEDEILNRSPR						
			28.93	AEEGKSPFR	1	6	0	0	0	0
571.72	1141.43	2	28.93	AEEGKSPFR						
			65.3	AGDLLEDSPK	1	8	0	0	0	0
590.73	1179.44	2	65.3	AGDLLEDSPK						
590.73	1179.44	2	34.4	AGDLLEDSPK						
			56.8	AGDLLEDSPKRPK	1	8	0	0	0	0
521.57	1561.7	3	56.8	AGDLLEDSPKRPK						
521.23	1560.68	3	43.61	AGDLLEDSPKRPK						
			25.85	AGKLNITKTTPK	1	7	0	0	0	0
456.2	1365.59	3	25.85	AGKLNITKTTPK						
			30.81	AGKSPELLIYAASSLQSGVPSR	1	14	0	0	0	0
780.45	2338.32	3	30.81	AGKSPELLIYAASSLQSGVPSR						
			41.06	AGLGSPERPPK	1	5	0	0	0	0
608.75	1215.49	2	41.06	AGLGSPERPPK						
406.2	1215.59	3	37.59	AGLGSPERPPK						
			25.6	AGPGGLSR	1	7	0	0	0	0
404.17	806.33	2	25.6	AGPGGLSR						
			33.13	AGPSLKTTLKPK	2	4	7	0	0	0
472.2	1413.58	3	33.13	AGPSLKTTLKPK						
			49.88	AGSPDVLR	1	3	0	0	0	0
461.71	921.41	2	49.88	AGSPDVLR						
			33.87	AGYSTDESSSSSLHATR	2	4	5	0	0	0
653.24	1956.71	3	33.87	AGYSTDESSSSSLHATR						
			55.92	AITSLLGGGSPK	1	10	0	0	0	0
597.77	1193.52	2	55.92	AITSLLGGGSPK						
			29.93	AKSPTPDGSER	2	3	5	0	0	0
673.73	1345.45	2	29.93	AKSPTPDGSER						
			31.6	AKSPTPSPSPPRNSDQEGGGK	5	3	5	7	9	14
845.94	2534.79	3	31.6	AKSPTPSPSPPRNSDQEGGGK						
634.72	2534.87	4	25.56	AKSPTPSPSPPRNSDQEGGGK						
			25.63	AKSPTPSPSPPRNSDQEGGGKK	5	3	5	7	9	14
888.6	2662.78	3	25.63	AKSPTPSPSPPRNSDQEGGGKK						
			26.86	AKTPVTLK	1	3	0	0	0	0
476.25	950.49	2	26.86	AKTPVTLK						
			35.32	ALINSMDQNMFRNFSFMNPGMER	1	15	0	0	0	0
719.05	2872.16	4	35.32	ALINSMDQNMFRNFSFMNPGMER						
			29.29	ALPQTPRPR	1	5	0	0	0	0
565.24	1128.46	2	29.29	ALPQTPRPR						
			26.12	ALSASHTDLAH	1	5	0	0	0	0
615.74	1229.46	2	26.12	ALSASHTDLAH						
			27.21	ALTTMVTTFHKYSGREGSK	5	4	7	8	13	18
848.32	2541.94	3	27.21	ALTTMVTTFHKYSGREGSK						
			25.75	ALTTSSCVDVK	2	4	6	0	0	0
656.21	1310.41	2	25.75	ALTTSSCVDVK						
			54.29	AMLDQLMGTSR	1	10	0	0	0	0
665.74	1329.46	2	54.29	AMLDQLMGTSR						
			32.87	ANVSSPHR	1	5	0	0	0	0
481.19	960.37	2	32.87	ANVSSPHR						
481.19	960.37	2	31.95	ANVSSPHR						
			31.5	APQGSNSK	2	5	7	0	0	0
482.24	962.47	2	31.5	APQGSNSK						
			54.7	APQTSSSPPPVR	1	6	0	0	0	0
659.26	1316.5	2	54.7	APQTSSSPPPVR						

659.28	1316.55	2	27.63	APQTSSSPPPVR						
			46.05	APSLTDLVK	1	3	0	0	0	0
526.23	1050.45	2	46.05	APSLTDLVK						
			28.86	APTTIGATCSK	1	10	0	0	0	0
572.69	1143.37	2	28.86	APTTIGATCSK						
			27.09	AQLWALMGSDK	1	9	0	0	0	0
664.78	1327.54	2	27.09	AQLWALMGSDK						
			26.28	ARESSDSEEEYKK	3	4	5	7	0	0
628.2	1881.57	3	26.28	ARESSDSEEEYKK						
			29.29	ARSVSPPPKR	2	3	5	0	0	0
634.73	1267.44	2	29.29	ARSVSPPPKR						
423.51	1267.52	3	25.53	ARSVSPPPKR						
			82.1	ASAVSELSPR	1	8	0	0	0	0
562.72	1123.43	2	82.1	ASAVSELSPR						
			34.39	ASEDTTSGSPPKK	1	9	0	0	0	0
713.79	1425.57	2	34.39	ASEDTTSGSPPKK						
			71.84	ASGQAFELILSPR	1	11	0	0	0	0
748.79	1495.57	2	71.84	ASGQAFELILSPR						
			30.25	ASPATHR	1	2	0	0	0	0
417.17	832.32	2	30.25	ASPATHR						
417.34	832.67	2	27.75	ASPATHR						
			30.23	ASPSKPASAPASR	1	2	0	0	0	0
660.78	1319.54	2	30.23	ASPSKPASAPASR						
			25.41	ASQSSLESSTGPPCIRS	2	4	10	0	0	0
632.27	1893.8	3	25.41	ASQSSLESSTGPPCIRS						
			26.81	ASRISQSTPAIFSPR	2	2	5	0	0	0
598.27	1791.78	3	26.81	ASRISQSTPAIFSPR						
			70.78	ASSHSSQTQGGGSVTK	2	2	6	0	0	0
846.8	1691.59	2	70.78	ASSHSSQTQGGGSVTK						
			70.22	ASSHSSQTQGGGSVTK	1	3	0	0	0	0
806.8	1611.59	2	70.22	ASSHSSQTQGGGSVTK						
846.79	1691.56	2	57.93	ASSHSSQTQGGGSVTK						
564.85	1691.54	3	38.36	ASSHSSQTQGGGSVTK						
			47.55	ASSLEDLVLK	1	2	0	0	0	0
599.27	1196.53	2	47.55	ASSLEDLVLK						
			43.64	ASSLNVLNVGGK	1	3	0	0	0	0
626.75	1251.49	2	43.64	ASSLNVLNVGGK						
418.19	1251.55	3	33.37	ASSLNVLNVGGK						
			31.02	ASSPPDR	1	3	0	0	0	0
419.15	836.3	2	31.02	ASSPPDR						
			25.33	ASTSKSESSQK	2	3	9	0	0	0
664.24	1326.47	2	25.33	ASTSKSESSQK						
			25.65	ASTSSSGSVRSPR	2	6	8	0	0	0
726.27	1450.52	2	25.65	ASTSSSGSVRSPR						
			27.24	ASVDSDSEGPK	2	5	7	0	0	0
436.21	1305.61	3	27.24	ASVDSDSEGPK						
			25.02	ASVITQVFHVPLEERK	1	5	0	0	0	0
494.5	1973.99	4	25.02	ASVITQVFHVPLEERK						
			26.37	ASVKVSCK	1	6	0	0	0	0
458.71	915.4	2	26.37	ASVKVSCK						
			25.58	ASVTERLDLKEEPK	1	4	0	0	0	0
589.2	1764.59	3	25.58	ASVTERLDLKEEPK						
838.62	837.62	1	30.91	ASVTYKR						
			28.11	ATAPQTQHVSPMR	1	10	0	0	0	0
759.68	1517.34	2	28.11	ATAPQTQHVSPMR						
			26.76	ATGAATPKK	1	6	0	0	0	0
469.69	937.37	2	26.76	ATGAATPKK						
			26.27	ATSACAPISSPK	2	3	9	0	0	0
436.2	1305.59	3	26.27	ATSACAPISSPK						
			30.88	ATSTSPNSQSSK	1	3	0	0	0	0
644.74	1287.47	2	30.88	ATSTSPNSQSSK						
			26.33	AVALGTGPR	1	6	0	0	0	0
468.23	934.44	2	26.33	AVALGTGPR						
			28.66	AVNKASSTTPK	2	7	9	0	0	0
426.2	1275.58	3	28.66	AVNKASSTTPK						
			34.11	AVTPVPTK	1	3	0	0	0	0
453.72	905.43	2	34.11	AVTPVPTK						
			26.07	AVTVAIVVKCPK	1	3	0	0	0	0
661.76	1321.51	2	26.07	AVTVAIVVKCPK						
			32.88	AYTHQVVTR	1	3	0	0	0	0
584.73	1167.45	2	32.88	AYTHQVVTR						
			33.31	AYTPVVVTQWYR	1	3	0	0	0	0
526.22	1575.63	3	33.31	AYTPVVVTQWYR						
			29.06	CDLISIPK	1	5	0	0	0	0
499.22	996.43	2	29.06	CDLISIPK						
			25.2	CNSSPGVLK	2	3	4	0	0	0
540.19	1078.38	2	25.2	CNSSPGVLK						
			34.51	DASPSKEER	1	3	0	0	0	0
577.71	1153.41	2	34.51	DASPSKEER						
			26.38	DDQVGVWSSPPPR	2	8	9	0	0	0
411.16	1640.6	4	26.38	DDQVGVWSSPPPR						
			38.57	DFSLEQLR	1	3	0	0	0	0

565.23	1128.45	2	38.57	DFSLEQLR						
			26	DGQDAIAQSPEK	1	9	0	0	0	0
698.27	1394.53	2	26	DGQDAIAQSPEK						
			28.66	DGSQSGSR	1	7	0	0	0	0
451.18	900.34	2	28.66	DGSQSGSR						
			25.7	DHSPTPSVFNSDEER	2	3	11	0	0	0
649.21	1944.62	3	25.7	DHSPTPSVFNSDEER						
			28.23	DISGPSPSKK	1	8	0	0	0	0
562.22	1122.43	2	28.23	DISGPSPSKK						
			33.88	DKSHSHTPSR	3	3	5	7	0	0
710.22	1418.42	2	33.88	DKSHSHTPSR						
			38.84	DLFDYSPPLHK	1	6	0	0	0	0
485.22	1452.65	3	38.84	DLFDYSPPLHK						
485.21	1452.62	3	34.17	DLFDYSPPLHK						
			29.42	DLVKENYLEYQQVPNSDPPR	3	7	10	16	0	0
679.26	2713	4	29.42	DLVKENYLEYQQVPNSDPPR						
			29.72	DPLLASGTDGVGTK	2	8	13	0	0	0
766.27	1530.53	2	29.72	DPLLASGTDGVGTK						
			32	DQSPFSK	1	3	0	0	0	0
458.7	915.38	2	32	DQSPFSK						
			32.15	DRSPHRSSPSDTRPK	2	3	7	0	0	0
482.21	1924.79	4	32.15	DRSPHRSSPSDTRPK						
482.2	1924.75	4	31.94	DRSPHRSSPSDTRPK						
482.22	1924.83	4	28.76	DRSPHRSSPSDTRPK						
482.2	1924.78	4	25.83	DRSPHRSSPSDTRPK						
			33.21	DRTPPLLYR	1	3	0	0	0	0
413.53	1237.57	3	33.21	DRTPPLLYR						
413.52	1237.54	3	30.6	DRTPPLLYR						
			27.2	DRTYAVSYVPK	3	3	4	7	0	0
523.17	1566.48	3	27.2	DRTYAVSYVPK						
			74.76	DSAIPVESDTDDEGAPR	2	8	10	0	0	0
677.87	2030.59	3	74.76	DSAIPVESDTDDEGAPR						
			42.24	DSAYQSITHYRPVSASR	1	16	0	0	0	0
512.22	2044.84	4	42.24	DSAYQSITHYRPVSASR						
			49.61	DSESHSR	1	4	0	0	0	0
470.17	938.32	2	49.61	DSESHSR						
			28.39	DSIAEGRISLR	1	2	0	0	0	0
669.88	1337.74	2	28.39	DSIAEGRISLR						
			35.22	DSKPSSTPR	1	7	0	0	0	0
541.72	1081.43	2	35.22	DSKPSSTPR						
			25.46	DSKPSSTPR	2	5	7	0	0	0
581.68	1161.35	2	25.46	DSKPSSTPR						
			26.4	DSSPGVR	1	3	0	0	0	0
412.7	823.39	2	26.4	DSSPGVR						
			29.21	DTAVSQTPK	2	5	7	0	0	0
567.74	1133.46	2	25.85	DTAVSQTPK						
			39.79	DTPASTAYMELSSLR	4	2	5	6	13	0
668.26	2001.74	3	39.79	DTPASTAYMELSSLR						
			30.35	DVYLSPR	1	5	0	0	0	0
479.19	956.36	2	30.35	DVYLSPR						
			81.52	DWEDDSDEDMSNFDR	1	6	0	0	0	0
1041.24	2080.46	2	81.52	DWEDDSDEDMSNFDR						
1041.3	2080.59	2	73.32	DWEDDSDEDMSNFDR						
694.7	2081.08	3	26.26	DWEDDSDEDMSNFDR						
			29.75	DYSALSKHER	1	6	0	0	0	0
443.19	1326.55	3	29.75	DYSALSKHER						
			30.42	DYSYER	1	3	0	0	0	0
477.67	953.32	2	30.42	DYSYER						
477.67	953.32	2	30.42	DYSYER						
			28.45	DYYKILGVK	1	2	0	0	0	0
603.6	1205.19	2	28.45	DYYKILGVK						
			26.15	EAAEQKVTR	1	8	0	0	0	0
577.72	1153.43	2	26.15	EAAEQKVTR						
			37.86	EAANEAGDSSQDEAEDDVK	2	9	10	0	0	0
756.2	2265.57	3	37.86	EAANEAGDSSQDEAEDDVK						
			25.54	EAATAPEVAAGSK	2	4	12	0	0	0
702.45	1402.89	2	25.54	EAATAPEVAAGSK						
			34.57	EAAVDTSSEITTKGIK	3	6	7	8	0	0
487.2	1944.76	4	34.57	EAAVDTSSEITTKGIK						
			72.74	EAEDSDSDDNIKR	2	5	7	0	0	0
584.5	1750.47	3	72.74	EAEDSDSDDNIKR						
876.26	1750.51	2	62.81	EAEDSDSDDNIKR						
			37.2	EAEEESDHN	1	6	0	0	0	0
612.15	1222.29	2	37.2	EAEEESDHN						
			30.23	EARSPQPNK	1	4	0	0	0	0
567.74	1133.47	2	30.23	EARSPQPNK						
			66.01	EDSGTFSLGK	1	3	0	0	0	0
581.72	1161.43	2	66.01	EDSGTFSLGK						
			73.18	EEEEGISQESSEEEQ	2	10	11	0	0	0
1012.72	2023.42	2	73.18	EEEEGISQESSEEEQ						
			28.21	EEMAAAGLTVTVTHSNEK	1	9	0	0	0	0
1012.84	2023.67	2	28.21	EEMAAAGLTVTVTHSNEK						

			63.86	EEPVSSGPEEAVGK	2	5	6	0	0	0
822.76	1643.51	2	63.86	EEPVSSGPEEAVGK						
822.74	1643.47	2	47.6	EEPVSSGPEEAVGK						
			27.55	EERLSPR	1	5	0	0	0	0
504.23	1006.45	2	27.55	EERLSPR						
			39.76	EESPLR	1	3	0	0	0	0
426.68	851.34	2	39.76	EESPLR						
426.68	851.34	2	27.41	EESPLR						
			26.27	EETGVFSYGSGSAATLYSLK	4	3	12	17	18	0
608.23	2428.9	4	26.27	EETGVFSYGSGSAATLYSLK						
			30.46	EGQYFGCSFDLTK	1	8	0	0	0	0
539.23	1614.66	3	30.46	EGQYFGCSFDLTK						
			25.11	EKLFETSSTRTDTQSGSK	7	6	7	8	9	13
873.51	2617.5	3	25.11	EKLFETSSTRTDTQSGSK						
			35.94	EKQSSEEEEKETR	2	4	5	0	0	0
622.86	1865.55	3	35.94	EKQSSEEEEKETR						
622.88	1865.61	3	31.56	EKQSSEEEEKETR						
			25.24	EKSKSPSPPR	3	3	5	7	0	0
461.17	1380.5	3	25.24	EKSKSPSPPR						
			25.82	ELDGSETSHGCTAQDLSQPSPK	3	5	17	20	0	0
650.21	2596.82	4	25.82	ELDGSETSHGCTAQDLSQPSPK						
			51.51	ELSNSPLR	1	5	0	0	0	0
512.23	1022.44	2	51.51	ELSNSPLR						
			35.89	ELSPAALEK	1	3	0	0	0	0
540.23	1078.45	2	35.89	ELSPAALEK						
			28.29	ELSPEAR	1	3	0	0	0	0
462.21	922.4	2	28.29	ELSPEAR						
			36.53	ELTDEEAER	1	3	0	0	0	0
628.21	1254.4	2	36.53	ELTDEEAER						
			31.55	ENPPVEDSSDEDDKR	2	8	9	0	0	0
668.56	2002.65	3	31.55	ENPPVEDSSDEDDKR						
			48.62	ENSFGSPLEFR	1	6	0	0	0	0
702.76	1403.5	2	48.62	ENSFGSPLEFR						
			29.32	EQGTESR	1	6	0	0	0	0
464.67	927.32	2	29.32	EQGTESR						
			32.66	ERETEK	1	4	0	0	0	0
464.23	926.44	2	32.66	ERETEK						
			30.66	ERFSPPRHELSPPQK	2	4	11	0	0	0
502.48	2005.88	4	30.66	ERFSPPRHELSPPQK						
502.47	2005.85	4	28.09	ERFSPPRHELSPPQK						
			36.02	ERSPALK	1	3	0	0	0	0
454.68	907.35	2	36.02	ERSPALK						
			33.41	ERSPALKSPLQSVVVR	2	3	8	0	0	0
489.23	1952.88	4	33.41	ERSPALKSPLQSVVVR						
			31.7	ERSPSPPTIQSK	2	3	5	0	0	0
757.77	1513.53	2	31.7	ERSPSPPTIQSK						
			40.96	ESDQTLAALLSPK	1	11	0	0	0	0
499.19	1494.55	3	40.96	ESDQTLAALLSPK						
			33.83	ESLKEEDESDDDNM	1	9	0	0	0	0
931.26	1860.51	2	33.83	ESLKEEDESDDDNM						
			39.8	ESSTSEGADQKMSSPEDDSDTKR	2	13	14	0	0	0
690.76	2759	4	39.8	ESSTSEGADQKMSSPEDDSDTKR						
			55.75	ESVPEFPLSPPK	1	9	0	0	0	0
724.79	1447.57	2	55.75	ESVPEFPLSPPK						
483.55	1447.62	3	45.45	ESVPEFPLSPPK						
			40.78	ETESAPGSPR	2	4	8	0	0	0
616.7	1231.38	2	40.78	ETESAPGSPR						
			30.64	ETESAPGSPR	1	4	0	0	0	0
576.69	1151.37	2	30.64	ETESAPGSPR						
576.69	1151.37	2	28.49	ETESAPGSPR						
			30.77	EVELVSE	1	6	0	0	0	0
470.68	939.34	2	30.77	EVELVSE						
			28.59	EYGSPLK	1	4	0	0	0	0
451.2	900.39	2	28.59	EYGSPLK						
			28.6	FFTTPSK	1	4	0	0	0	0
461.21	920.4	2	28.6	FFTTPSK						
			28.49	FGVSPNSISFPHPK	1	4	0	0	0	0
536.6	1606.79	3	28.49	FGVSPNSISFPHPK						
			25.35	FKTTVGSVK	3	3	4	7	0	0
611.21	1220.41	2	25.35	FKTTVGSVK						
			48.83	FNDSEGDDTEETEDYR	2	4	9	0	0	0
736.51	2206.51	3	48.83	FNDSEGDDTEETEDYR						
			32.38	FSASAPSSSTDITSFLSSDPSSLPK	5	4	7	8	10	13
740.26	2957	4	32.38	FSASAPSSSTDITSFLSSDPSSLPK						
			50	FSKEEPVSSGPEEAVGK	2	8	9	0	0	0
669.56	2005.65	3	50	FSKEEPVSSGPEEAVGK						
			25.33	FSPKSPDK	1	5	0	0	0	0
506.7	1011.39	2	25.33	FSPKSPDK						
			31.05	FSSPIVK	1	2	0	0	0	0
436.19	870.37	2	31.05	FSSPIVK						
			25.32	FSSVSSPQPR	2	2	3	0	0	0
422.19	1263.55	3	25.32	FSSVSSPQPR						

			48.97	FTDKDQQPSGSEGEDDDAEAALKK	2	9	11	0	0	0
717.81	2867.23	4	48.97	FTDKDQQPSGSEGEDDDAEAALKK						
			25.24	GADSGEEKEEGINR	1	4	0	0	0	0
552.23	1653.67	3	25.24	GADSGEEKEEGINR						
			29.81	GAESPFEEK	1	4	0	0	0	0
565.21	1128.4	2	29.81	GAESPFEEK						
			26.44	GAGSQSPPR	2	4	6	0	0	0
515.73	1029.44	2	26.44	GAGSQSPPR						
			25.26	GDGTRAYFFTK	1	4	0	0	0	0
457.19	1368.56	3	25.26	GDGTRAYFFTK						
			36.23	GDSRSPSHKR	2	3	5	0	0	0
438.82	1313.44	3	36.23	GDSRSPSHKR						
			47.71	GEFSASPMLK	1	6	0	0	0	0
587.74	1173.47	2	47.71	GEFSASPMLK						
587.71	1173.41	2	45.15	GEFSASPMLK						
			25.78	GGAAGSPPGR	1	6	0	0	0	0
460.72	919.43	2	25.78	GGAAGSPPGR						
			48.46	GGDTPGVPR	1	4	0	0	0	0
482.21	962.4	2	48.46	GGDTPGVPR						
			48.61	GGGPGKSPTR	1	7	0	0	0	0
504.21	1006.41	2	48.61	GGGPGKSPTR						
			27.41	GGGSGNPTTTIESPK	2	8	13	0	0	0
531.23	1590.66	3	27.41	GGGSGNPTTTIESPK						
			28.4	GGLSPANDTGAK	1	4	0	0	0	0
598.27	1194.52	2	28.4	GGLSPANDTGAK						
598.21	1194.4	2	25.09	GGLSPANDTGAK						
			42.99	GGSGYHSR	1	3	0	0	0	0
457.66	913.3	2	42.99	GGSGYHSR						
			36.87	GISPIVFDR	1	3	0	0	0	0
556.25	1110.49	2	36.87	GISPIVFDR						
			29.99	GISVSLSLPSLPSR	3	5	10	13	0	0
417.2	1664.77	4	29.99	GISVSLSLPSLPSR						
			25.32	GKARQAPSVQEHPSPS	2	8	14	0	0	0
621.7	1862.08	3	25.32	GKARQAPSVQEHPSPS						
			28.15	GLEWVSTTRGSGGYTSYADSVK	5	6	8	11	16	20
691.27	2761.05	4	28.15	GLEWVSTTRGSGGYTSYADSVK						
			26.76	GLKLTFDSSFSPNTGK	4	5	8	9	11	0
512.16	2044.62	4	26.76	GLKLTFDSSFSPNTGK						
			37.97	GLPPSMER	1	5	0	0	0	0
497.71	993.4	2	37.97	GLPPSMER						
497.71	993.41	2	37.69	GLPPSMER						
497.71	993.4	2	32.5	GLPPSMER						
497.67	993.34	2	31.07	GLPPSMER						
497.7	993.38	2	29.24	GLPPSMER						
			63.99	GNAEGSSDEEGKLVIDEPAK	2	6	7	0	0	0
768.59	2302.76	3	63.99	GNAEGSSDEEGKLVIDEPAK						
			33.61	GNDPLTSSPGR	1	8	0	0	0	0
604.7	1207.38	2	33.61	GNDPLTSSPGR						
			25.41	GNTELFDHYSGLFPAAIPSSIGALK	3	9	10	19	0	0
963.32	2886.92	3	25.41	GNTELFDHYSGLFPAAIPSSIGALK						
			34.54	GPASGDPR	1	4	0	0	0	0
432.72	863.42	2	34.54	GPASGDPR						
			44.75	GPPDFSSDEEREPTPVLGSGAAAAGR	2	7	14	0	0	0
704.51	2814.01	4	44.75	GPPDFSSDEEREPTPVLGSGAAAAGR						
			46.64	GPPSPPAPVMHSPSR	2	4	12	0	0	0
844.34	1686.68	2	46.64	GPPSPPAPVMHSPSR						
563.2	1686.58	3	39.71	GPPSPPAPVMHSPSR						
			27.6	GPSLGSGGPPPR	2	3	6	0	0	0
626.24	1250.46	2	27.6	GPSLGSGGPPPR						
			35.09	GPSPAPASSPKR	2	3	8	0	0	0
663.29	1324.56	2	35.09	GPSPAPASSPKR						
			38.44	GPSSVEDIK	1	4	0	0	0	0
527.26	1052.5	2	38.44	GPSSVEDIK						
			28.04	GPSWDPFR	1	3	0	0	0	0
535.2	1068.38	2	28.04	GPSWDPFR						
			42.5	GQSQTSPDHR	1	6	0	0	0	0
610.73	1219.44	2	42.5	GQSQTSPDHR						
610.72	1219.43	2	42.2	GQSQTSPDHR						
			26.2	GRGGEEETLALSFSCQQWQPPPQ	1	12	0	0	0	0
671.01	2680.01	4	26.2	GRGGEEETLALSFSCQQWQPPPQ						
			27.35	GRGLSLSR	1	7	0	0	0	0
469.73	937.44	2	27.35	GRGLSLSR						
			32.69	GRLSPVPVPR	1	4	0	0	0	0
586.26	1170.51	2	32.69	GRLSPVPVPR						
			77.87	GSFSDTGLGDGK	1	4	0	0	0	0
631.7	1261.39	2	77.87	GSFSDTGLGDGK						
			27.44	GSGFPDGEGSSR	1	10	0	0	0	0
637.71	1273.4	2	27.44	GSGFPDGEGSSR						
			53.38	GSPHYFSPFRPY	2	2	7	0	0	0
543.51	1627.52	3	53.38	GSPHYFSPFRPY						
			34.37	GSPHYFSPFRPY	1	2	0	0	0	0
516.88	1547.61	3	34.37	GSPHYFSPFRPY						

543.51	1627.51	3	32.31	GSPHYFSPFRPY						
			36.84	GSTDVDDLK	2	2	3	0	0	0
583.72	1165.43	2	36.84	GSTDVDDLK						
			31.14	GTLTTSFPK	1	6	0	0	0	0
523.22	1044.44	2	31.14	GTLTTSFPK						
			29.32	GTMVTVSSASTK	2	2	5	0	0	0
671.8	1341.58	2	29.32	GTMVTVSSASTK						
			25.16	GYGVATPK	2	2	6	0	0	0
483.19	964.37	2	25.16	GYGVATPK						
			43.58	HASSSPESPKPAPAPGSHR	5	3	4	5	8	17
775.57	2323.68	3	43.58	HASSSPESPKPAPAPGSHR						
			39.77	HASSSPESPKPAPAPGSHR	4	3	4	5	8	0
748.91	2243.71	3	39.77	HASSSPESPKPAPAPGSHR						
748.92	2243.75	3	36.43	HASSSPESPKPAPAPGSHR						
582.18	2324.68	4	25.28	HASSSPESPKPAPAPGSHR						
			34.07	HAYKDDSPR	1	7	0	0	0	0
404.17	1209.5	3	34.07	HAYKDDSPR						
404.16	1209.44	3	25.5	HAYKDDSPR						
			40.82	HDSPDPSPPR	2	3	7	0	0	0
653.72	1305.43	2	40.82	HDSPDPSPPR						
			34.42	HELSPPQKR	1	4	0	0	0	0
400.51	1198.52	3	34.42	HELSPPQKR						
400.51	1198.51	3	34.09	HELSPPQKR						
400.53	1198.56	3	33.07	HELSPPQKR						
400.52	1198.55	3	26.91	HELSPPQKR						
400.52	1198.53	3	25.52	HELSPPQKR						
			36.8	HGSLGSSIK	1	7	0	0	0	0
490.22	978.43	2	36.8	HGSLGSSIK						
			36.61	HGTPDPSPR	2	3	7	0	0	0
576.18	1150.35	2	36.61	HGTPDPSPR						
			37.53	HIALSPR	1	5	0	0	0	0
444.21	886.4	2	37.53	HIALSPR						
			34.03	HKMSPPPSGFGER	1	4	0	0	0	0
512.22	1533.63	3	34.03	HKMSPPPSGFGER						
512.22	1533.65	3	25.68	HKMSPPPSGFGER						
			28.74	HKSDSPESDAER	3	3	5	8	0	0
834.21	1666.4	2	28.74	HKSDSPESDAER						
			26.81	HKSDSPESDAEREK	3	3	5	8	0	0
646.82	1937.43	3	26.81	HKSDSPESDAEREK						
485.42	1937.66	4	25.2	HKSDSPESDAEREK						
			47.33	HNDIVDSDSDAEDR	2	7	9	0	0	0
616.2	1845.57	3	47.33	HNDIVDSDSDAEDR						
			41.41	HNSWSSSSR	1	3	0	0	0	0
571.22	1140.42	2	41.41	HNSWSSSSR						
			28.53	HQASDSENEELPKPR	2	4	6	0	0	0
492.7	1966.76	4	28.53	HQASDSENEELPKPR						
656.23	1965.66	3	26.4	HQASDSENEELPKPR						
			33.08	HQASDSENEEPPKPR	2	4	6	0	0	0
650.91	1949.71	3	33.08	HQASDSENEEPPKPR						
			54.59	HRPSPPATPPPK	2	4	8	0	0	0
485.89	1454.65	3	54.59	HRPSPPATPPPK						
485.88	1454.61	3	50.74	HRPSPPATPPPK						
728.28	1454.55	2	35.12	HRPSPPATPPPK						
728.27	1454.53	2	34.45	HRPSPPATPPPK						
728.33	1454.64	2	31.48	HRPSPPATPPPK						
728.28	1454.55	2	29.21	HRPSPPATPPPK						
			25.55	HSGLYACSVR	2	2	8	0	0	0
423.17	1266.49	3	25.55	HSGLYACSVR						
			37.78	HSTPSPTR	1	3	0	0	0	0
488.69	975.36	2	37.78	HSTPSPTR						
488.69	975.37	2	36.88	HSTPSPTR						
			44.61	HTGPNSPDTANDGFVR	1	6	0	0	0	0
603.21	1806.61	3	44.61	HTGPNSPDTANDGFVR						
			31.5	HTLGDSDNES	1	6	0	0	0	0
605.62	1209.22	2	31.5	HTLGDSDNES						
			49.05	IAAPELHKGDSDSEEDEPTK	2	11	13	0	0	0
814.32	2439.95	3	49.05	IAAPELHKGDSDSEEDEPTK						
610.97	2439.85	4	39.7	IAAPELHKGDSDSEEDEPTK						
			25.06	IATLISSFLK	2	6	7	0	0	0
422.52	1264.53	3	25.06	IATLISSFLK						
			44.02	IDISPSTFR	1	4	0	0	0	0
572.22	1142.43	2	44.02	IDISPSTFR						
			48.84	IDISPSTLR	1	4	0	0	0	0
555.26	1108.51	2	48.84	IDISPSTLR						
555.24	1108.47	2	45.19	IDISPSTLR						
			69.84	IEDVGSDEEDDSGK	1	6	0	0	0	0
843.76	1685.5	2	69.84	IEDVGSDEEDDSGK						
563.25	1686.72	3	42.71	IEDVGSDEEDDSGK						
			53.25	IEDVGSDEEDDSGKDK	1	6	0	0	0	0
648.59	1942.75	3	53.25	IEDVGSDEEDDSGKDK						
			42.44	IEDVGSDEEDDSGKDKK	1	6	0	0	0	0
518.96	2071.82	4	42.44	IEDVGSDEEDDSGKDKK						

			40.39	IESPKLER	1	3	0	0	0	0
547.26	1092.5	2	40.39	IESPKLER						
			52.19	IGEGTYGVVYK	2	5	6	0	0	0
687.23	1372.45	2	52.19	IGEGTYGVVYK						
687.2	1372.39	2	44.39	IGEGTYGVVYK						
			26.43	IGSGVER	1	3	0	0	0	0
413.2	824.38	2	26.43	IGSGVER						
			30.19	IHLGSSPK	1	6	0	0	0	0
466.73	931.44	2	30.19	IHLGSSPK						
			29.16	ILSSKVMSDDQGSK	1	8	0	0	0	0
405.19	1616.71	4	29.16	ILSSKVMSDDQGSK						
			74.68	INSSGESGDESDEFLQSR	4	3	4	7	11	0
787.7	2360.08	3	74.68	INSSGESGDESDEFLQSR						
			29.82	IPATLSTGNTNSVLK	1	7	0	0	0	0
537.1	1608.28	3	29.82	IPATLSTGNTNSVLK						
			28.54	IPGGNIYISPLKSPYK	2	9	13	0	0	0
640.89	1919.65	3	28.54	IPGGNIYISPLKSPYK						
			26.53	IRSSVEK	1	4	0	0	0	0
463.71	925.4	2	26.53	IRSSVEK						
			43.62	ISDSESEDPPR	2	2	4	0	0	0
731.19	1460.36	2	43.62	ISDSESEDPPR						
			26.49	ISEDESSGLVYKSGSGEIGSETSDK	7	2	7	11	13	15
805.54	3218.15	4	26.49	ISEDESSGLVYKSGSGEIGSETSDK						
			31.53	ISGKMTLK	1	6	0	0	0	0
971.56	970.56	1	31.53	ISGKMTLK						
			35.8	ISISLETVTPKPKTK	4	4	7	9	14	0
498.03	1988.1	4	35.8	ISISLETVTPKPKTK						
			40.25	ISLSAPAK	1	4	0	0	0	0
441.22	880.42	2	40.25	ISLSAPAK						
			26.59	ISRESSVDCLK	2	2	6	0	0	0
480.18	1437.51	3	26.59	ISRESSVDCLK						
			27.54	ISSRPEGLTSTVRDGLEMSGCSER	2	2	11	0	0	0
700.22	2796.85	4	27.54	ISSRPEGLTSTVRDGLEMSGCSER						
			28.35	ISVQSLAVLGPLSPITK	3	5	13	16	0	0
494.97	1975.86	4	28.35	ISVQSLAVLGPLSPITK						
			25.33	ISYISSSATTIYYADSVK	2	5	16	0	0	0
540.19	2156.74	4	25.33	ISYISSSATTIYYADSVK						
			28.04	ITALAPSTMK	2	7	8	0	0	0
403.19	1206.55	3	28.04	ITALAPSTMK						
			26.78	ITLTEIEPSVETTTQEKTPEK	1	2	0	0	0	0
846.6	2536.78	3	26.78	ITLTEIEPSVETTTQEKTPEK						
			28.1	ITRQEFIDGILSSK	2	2	12	0	0	0
603.6	1807.78	3	28.1	ITRQEFIDGILSSK						
			43.03	KAASPSPQSVR	2	4	6	0	0	0
651.25	1300.48	2	43.03	KAASPSPQSVR						
			29.27	KAEDSDSEPEPEDNVR	2	5	7	0	0	0
696.87	2087.59	3	29.27	KAEDSDSEPEPEDNVR						
			39.02	KAEGEPQEESPLK	1	10	0	0	0	0
531.23	1590.66	3	39.02	KAEGEPQEESPLK						
			27.13	KAFEESLSTLK	1	9	0	0	0	0
459.2	1374.58	3	27.13	KAFEESLSTLK						
			42.59	KAPKSPAK	1	5	0	0	0	0
460.73	919.44	2	42.59	KAPKSPAK						
460.72	919.42	2	40.25	KAPKSPAK						
460.71	919.41	2	34.7	KAPKSPAK						
460.72	919.43	2	30.65	KAPKSPAK						
			43.81	KASGPPVSELITK	1	3	0	0	0	0
478.9	1433.69	3	43.81	KASGPPVSELITK						
479.22	1434.65	3	42.18	KASGPPVSELITK						
			35.71	KASGSENEGDYNPGR	2	3	5	0	0	0
599.29	1794.84	3	35.71	KASGSENEGDYNPGR						
			26.44	KASPEAASTPR	1	3	0	0	0	0
611.25	1220.48	2	26.44	KASPEAASTPR						
			34.83	KASPPSGLWSPAYASH	1	6	0	0	0	0
584.21	1749.6	3	34.83	KASPPSGLWSPAYASH						
			58.29	KATGAATPK	1	7	0	0	0	0
469.69	937.37	2	58.29	KATGAATPK						
469.72	937.42	2	47.47	KATGAATPK						
			47.55	KDSASEEEAR	2	3	5	0	0	0
676.22	1350.42	2	47.55	KDSASEEEAR						
			26.18	KDSGKLAK	1	3	0	0	0	0
478.19	954.36	2	26.18	KDSGKLAK						
			27.73	KDTWTKVDIPSPPPR	2	3	11	0	0	0
647.33	1938.95	3	27.73	KDTWTKVDIPSPPPR						
			43.11	KESESEDSSDDEPLIK	4	3	5	8	9	0
747.54	2239.61	3	43.11	KESESEDSSDDEPLIK						
747.4	2239.18	3	40.41	KESESEDSSDDEPLIK						
			54.1	KESESEDSSDDEPLIKK	4	3	5	8	9	0
790.1	2367.28	3	54.1	KESESEDSSDDEPLIKK						
			30.13	KFELLPTPPLSPSR	2	7	11	0	0	0
590.6	1768.77	3	30.13	KFELLPTPPLSPSR						
			29.62	KGGSTSSSPSR	1	4	0	0	0	0

572.74	1143.46	2	29.62	KGGSTSSSPSR						
			27.49	KGKTSTPR	3	4	5	6	0	0
565.22	1128.42	2	27.49	KGKTSTPR						
			54.21	KGNAEGSSDEEGKLVIDEPAK	2	7	8	0	0	0
810.99	2429.95	3	54.21	KGNAEGSSDEEGKLVIDEPAK						
			27.98	KGNAEGSSDEEGKLVIDEPAKEK	2	7	8	0	0	0
676.48	2701.89	4	27.98	KGNAEGSSDEEGKLVIDEPAKEK						
			48.17	KHSPSPPPPTPTESR	2	3	5	0	0	0
901.85	1801.68	2	48.17	KHSPSPPPPTPTESR						
601.55	1801.63	3	42.89	KHSPSPPPPTPTESR						
901.81	1801.61	2	39.7	KHSPSPPPPTPTESR						
601.57	1801.7	3	32.07	KHSPSPPPPTPTESR						
601.56	1801.66	3	26.54	KHSPSPPPPTPTESR						
			31.49	KKEEPSQNDISPK	1	11	0	0	0	0
409.69	1634.73	4	31.49	KKEEPSQNDISPK						
			32.52	KKEPAITSQNSPEAR	1	11	0	0	0	0
445.21	1776.8	4	32.52	KKEPAITSQNSPEAR						
			25.05	KKSHLSLVGTASGLGSNK	3	3	6	16	0	0
510.16	2036.61	4	25.05	KKSHLSLVGTASGLGSNK						
			26.22	KKTRSINSVSPK	4	3	5	8	10	0
560.23	1677.65	3	26.22	KKTRSINSVSPK						
			25.69	KKTTIK	1	4	0	0	0	0
406.68	811.35	2	25.69	KKTTIK						
			43.25	KLEKEEEEGISQESSEEEQ	2	14	15	0	0	0
846.5	2536.48	3	43.25	KLEKEEEEGISQESSEEEQ						
846.61	2536.79	3	32.17	KLEKEEEEGISQESSEEEQ						
			43.74	KLSGDQPAAR	1	3	0	0	0	0
575.71	1149.41	2	43.74	KLSGDQPAAR						
			28.7	KLSVPTSDEEDEVPAPKPR	2	6	7	0	0	0
585.52	2338.05	4	28.7	KLSVPTSDEEDEVPAPKPR						
			26.01	KMSKSALNQTK	2	3	5	0	0	0
470.21	1407.61	3	26.01	KMSKSALNQTK						
			33.51	KMSQPGSPSPK	2	3	7	0	0	0
659.22	1316.43	2	33.51	KMSQPGSPSPK						
440.18	1317.53	3	32.23	KMSQPGSPSPK						
			35.42	KPAGATPK	1	6	0	0	0	0
432.19	862.37	2	35.42	KPAGATPK						
432.19	862.38	2	31.92	KPAGATPK						
			54.92	KPIETGSPK	1	7	0	0	0	0
532.76	1063.51	2	54.92	KPIETGSPK						
533.22	1064.43	2	40.54	KPIETGSPK						
			36.2	KQEKTPKTPK	2	5	8	0	0	0
458.24	1371.69	3	36.2	KQEKTPKTPK						
			84.79	KQSLGELIGTLNAAK	1	3	0	0	0	0
825.83	1649.64	2	84.79	KQSLGELIGTLNAAK						
			31.31	KQSSPISPK	2	3	7	0	0	0
573.21	1144.4	2	31.31	KQSSPISPK						
			46.31	KRESESESDETPPAAPQLIK	2	4	6	0	0	0
819.5	2455.48	3	46.31	KRESESESDETPPAAPQLIK						
819.27	2454.8	3	46.2	KRESESESDETPPAAPQLIK						
			56.16	KRETDDEGEDD	1	4	0	0	0	0
750.68	1499.35	2	56.16	KRETDDEGEDD						
750.69	1499.37	2	50.29	KRETDDEGEDD						
750.69	1499.36	2	46.2	KRETDDEGEDD						
750.72	1499.43	2	43.5	KRETDDEGEDD						
750.73	1499.44	2	41.1	KRETDDEGEDD						
750.68	1499.34	2	37.27	KRETDDEGEDD						
			32.19	KSAKLPPK	1	2	0	0	0	0
481.7	961.38	2	32.19	KSAKLPPK						
			31.96	KSGVPPK	1	2	0	0	0	0
403.7	805.38	2	31.96	KSGVPPK						
404.18	806.34	2	28.34	KSGVPPK						
			42.64	KSLDSDESEDEEDDYQQK	2	2	8	0	0	0
820.89	2459.66	3	42.64	KSLDSDESEDEEDDYQQK						
820.88	2459.6	3	37.91	KSLDSDESEDEEDDYQQK						
			37.77	KSPPKADEK	1	2	0	0	0	0
561.22	1120.43	2	37.77	KSPPKADEK						
561.21	1120.4	2	25.31	KSPPKADEK						
			26.02	KSSPEMEDAR	1	3	0	0	0	0
643.23	1284.44	2	26.02	KSSPEMEDAR						
			31.93	KTAKMLSSPTGVPK	3	2	7	10	0	0
566.63	1696.88	3	31.93	KTAKMLSSPTGVPK						
			50.26	KTGSYGALAEITASK	1	4	0	0	0	0
535.58	1603.73	3	50.26	KTGSYGALAEITASK						
			25.37	KTSPQVK	1	3	0	0	0	0
441.19	880.36	2	25.37	KTSPQVK						
			35.25	KVAKSPK	1	5	0	0	0	0
426.22	850.42	2	35.25	KVAKSPK						
			59.3	KVMDSDEDDDY	1	5	0	0	0	0
755.2	1508.38	2	59.3	KVMDSDEDDDY						
755.2	1508.39	2	50.05	KVMDSDEDDDY						
			57.4	KVVVSPTK	1	5	0	0	0	0

476.22	950.42	2	57.4	KVVVSPTK						
476.25	950.48	2	54.03	KVVVSPTK						
476.25	950.49	2	48.83	KVVVSPTK						
			50.44	KVVVSPTKK	1	5	0	0	0	0
540.26	1078.5	2	50.44	KVVVSPTKK						
			26.36	LATNTSAPDLKNVRSKVGSTENIK	5	3	5	15	19	20
995.45	2983.33	3	26.36	LATNTSAPDLKNVRSKVGSTENIK						
			25.38	LATTTTDTSSVPK	3	4	5	9	0	0
530.24	1587.69	3	25.38	LATTTTDTSSVPK						
			25.17	LCSGTTPR	2	3	5	0	0	0
504.69	1007.37	2	25.17	LCSGTTPR						
			45.2	LDQPVSAPPSPR	2	6	10	0	0	0
726.3	1450.58	2	45.2	LDQPVSAPPSPR						
			61.99	LDSPDPFK	1	3	0	0	0	0
520.71	1039.41	2	61.99	LDSPDPFK						
			54.38	LGSFGSITR	1	3	0	0	0	0
516.22	1030.43	2	54.38	LGSFGSITR						
516.23	1030.45	2	25.61	LGSFGSITR						
			49.47	LGSPKPER	1	3	0	0	0	0
496.23	990.46	2	49.47	LGSPKPER						
			27.91	LISDFEDTDGEGGAYTDNELDEPAEEPLVS	3	3	8	16	0	0
1023.9	4091.56	4	27.91	LISDFEDTDGEGGAYTDNELDEPAEEPLVSSITR						
			41.26	LISPYKK	1	3	0	0	0	0
471.72	941.42	2	41.26	LISPYKK						
			26.67	LISTKSQFISPK	2	4	10	0	0	0
508.19	1521.56	3	26.67	LISTKSQFISPK						
			26.38	LITTLSDK	1	4	0	0	0	0
499.2	996.38	2	26.38	LITTLSDK						
			45.99	LKLSPSPSSR	2	4	6	0	0	0
623.22	1244.42	2	45.99	LKLSPSPSSR						
			25.75	LKLSPSPSSR	1	4	0	0	0	0
583.23	1164.44	2	25.75	LKLSPSPSSR						
			25.95	LLLTLPLLRQTAAK	1	4	0	0	0	0
549.23	1644.66	3	25.95	LLLTLPLLRQTAAK						
			25.53	LLMDSK	1	5	0	0	0	0
407.69	813.37	2	25.53	LLMDSK						
			27.65	LLSPLSSAR	1	3	0	0	0	0
519.24	1036.47	2	27.65	LLSPLSSAR						
519.22	1036.43	2	27.6	LLSPLSSAR						
			34.8	LNHSPPQSSSR	1	4	0	0	0	0
435.17	1302.5	3	34.8	LNHSPPQSSSR						
			30.77	LNQPGTPTR	1	6	0	0	0	0
538.71	1075.4	2	30.77	LNQPGTPTR						
			25.39	LPHYVASDSSSLMK	4	7	9	10	11	0
627.96	1880.85	3	25.39	LPHYVASDSSSLMK						
667.22	1332.42	2	26.02	LPLPSRSSLLR						
			25.37	LPSPAPAR	1	3	0	0	0	0
452.2	902.38	2	25.37	LPSPAPAR						
			31.42	LPTASASLPPVCGEK	2	3	7	0	0	0
553.56	1657.65	3	31.42	LPTASASLPPVCGEK						
			34.73	LQAKESPQR	1	6	0	0	0	0
582.73	1163.44	2	34.73	LQAKESPQR						
582.75	1163.48	2	34.12	LQAKESPQR						
			27.84	LQTPNTFPK	2	3	6	0	0	0
610.21	1218.4	2	27.84	LQTPNTFPK						
			26.1	LRAQQYQNNQQASPK	1	13	0	0	0	0
623.18	1866.52	3	26.1	LRAQQYQNNQQASPK						
			38.79	LREQGTESR	1	8	0	0	0	0
599.24	1196.47	2	38.79	LREQGTESR						
			26.71	LRRELITPK	1	7	0	0	0	0
412.22	1233.63	3	26.71	LRRELITPK						
			36.06	LSGLSFKR	1	5	0	0	0	0
501.18	1000.34	2	36.06	LSGLSFKR						
			36.79	LSLCGEESFGT	1	11	0	0	0	0
421.86	1262.54	3	36.79	LSLCGEESFGT						
			48.53	LSLSPLR	1	4	0	0	0	0
440.2	878.39	2	48.53	LSLSPLR						
			35.89	LSLSSAK	2	4	5	0	0	0
			27.28	LSPEVAPPAHR	1	2	0	0	0	0
428.2	1281.57	3	27.28	LSPEVAPPAHR						
			33.5	LSSLRASTSK	2	3	7	0	0	0
612.21	1222.41	2	33.5	LSSLRASTSK						
			48	LSSPVLHR	1	3	0	0	0	0
501.73	1001.45	2	48	LSSPVLHR						
			26.68	LTASSTPPTLDRK	3	2	4	9	0	0
552.26	1653.74	3	26.68	LTASSTPPTLDRK						
			46.87	LTVENSPK	1	6	0	0	0	0
498.19	994.37	2	46.87	LTVENSPK						
632.28	1893.82	3	26.45	LVASGNPITVFQGEIPPK						
			26.01	LVVSRGGLLGDLASSDVAVELPFTLMHPKP	2	14	24	0	0	0
866.62	3462.45	4	26.01	LVVSRGGLLGDLASSDVAVELPFTLMHPKPK						
			38.84	LYNSEESRPYTNK	1	11	0	0	0	0

575.22	1722.64	3	38.84	LYNSEESRPYTNK						
444.19	886.36	2	30.09	MAKSLVPK						
			25.7	MATSVVPK	1	3	0	0	0	0
463.2	924.39	2	25.7	MATSVVPK						
			71.36	MGANSLER	1	5	0	0	0	0
493.22	984.42	2	71.36	MGANSLER						
			26.78	MGFGSISR	1	5	0	0	0	0
474.2	946.39	2	26.78	MGFGSISR						
			32.47	MGLSMER	1	4	0	0	0	0
466.17	930.33	2	32.47	MGLSMER						
			30.56	MGVPTPK	1	5	0	0	0	0
412.18	822.36	2	30.56	MGVPTPK						
490.73	979.45	2	46.19	MLQAISPK						
491.21	980.41	2	38.15	MLQAISPK						
			46.19	MLQALSPK	1	6	0	0	0	0
			28.76	MNSVAGNK	1	3	0	0	0	0
457.19	912.37	2	28.76	MNSVAGNK						
			26.24	MSGFIYQGK	1	2	0	0	0	0
562.7	1123.38	2	26.24	MSGFIYQGK						
			26.17	MSSPEDDSDTKR	2	2	3	0	0	0
799.23	1596.44	2	26.17	MSSPEDDSDTKR						
			27.34	MVLGTIDLCSCFSAGLPK	2	5	10	0	0	0
511.55	2042.17	4	27.34	MVLGTIDLCSCFSAGLPK						
			29.74	NDKSEEEQSSSSVK	1	4	0	0	0	0
568.85	1703.54	3	29.74	NDKSEEEQSSSSVK						
			67.7	NEEDEGHSNSSPR	1	11	0	0	0	0
804.27	1606.53	2	67.7	NEEDEGHSNSSPR						
804.23	1606.44	2	51.67	NEEDEGHSNSSPR						
			34.43	NEEDEGHSNSSPR	2	10	11	0	0	0
844.27	1686.52	2	34.43	NEEDEGHSNSSPR						
			43.86	NHSGSRTPPVALNSSR	3	3	5	7	0	0
967.38	1932.75	2	43.86	NHSGSRTPPVALNSSR						
			26.63	NNKTSEK	2	4	5	0	0	0
505.23	1008.44	2	26.63	NNKTSEK						
			38.67	NQASDSENEELPKPR	2	4	6	0	0	0
648.57	1942.68	3	38.67	NQASDSENEELPKPR						
			26.88	NSEEEEEEK	1	2	0	0	0	0
650.72	1299.42	2	26.88	NSEEEEEEK						
			28.01	NSPVTKTPPR	2	2	7	0	0	0
635.76	1269.5	2	28.01	NSPVTKTPPR						
			67.59	NSQEDSEDSEDKDVK	2	6	9	0	0	0
998.76	1995.51	2	67.59	NSQEDSEDSEDKDVK						
			25.99	NTALSHK	1	2	0	0	0	0
433.2	864.39	2	25.99	NTALSHK						
			28.72	NTEESSSPVRK	1	7	0	0	0	0
678.3	1354.59	2	28.72	NTEESSSPVRK						
			25.32	PEGDVTSGSSR	2	9	10	0	0	0
432.19	1293.54	3	25.32	PEGDVTSGSSR						
			34.03	PTSPK	1	3	0	0	0	0
623.18	622.17	1	34.03	PTSPK						
			28.49	QAISDGVTNPK	2	4	8	0	0	0
440.22	1317.64	3	28.49	QAISDGVTNPK						
			25.05	QAYSPR	1	4	0	0	0	0
408.15	814.29	2	25.05	QAYSPR						
			26.93	QDLTALSGK	1	7	0	0	0	0
520.23	1038.44	2	26.93	QDLTALSGK						
			25.47	QEMEAYTPK	1	6	0	0	0	0
407.2	1218.56	3	25.47	QEMEAYTPK						
			62.82	QGSPVAAGAPAK	1	3	0	0	0	0
574.21	1146.4	2	62.82	QGSPVAAGAPAK						
574.21	1146.41	2	54.47	QGSPVAAGAPAK						
			29.97	QKQGKKSVFDEELTNTSK	3	14	16	17	0	0
591.5	2361.95	4	29.97	QKQGKKSVFDEELTNTSK						
			40.49	QKSDAEEDGGTVSQEEEDRKPK	2	3	13	0	0	0
688.01	2748.01	4	40.49	QKSDAEEDGGTVSQEEEDRKPK						
			25.97	QLESLGWDNGYSRSR	4	4	11	12	14	0
533.18	2128.68	4	25.97	QLESLGWDNGYSRSR						
			40.81	QLSESFK	1	5	0	0	0	0
473.69	945.37	2	40.81	QLSESFK						
			50.51	QLSSGVSEIR	1	3	0	0	0	0
592.25	1182.49	2	50.51	QLSSGVSEIR						
592.25	1182.48	2	48.18	QLSSGVSEIR						
			27.85	QLVAGNSPKK	1	7	0	0	0	0
568.21	1134.41	2	27.85	QLVAGNSPKK						
			27.14	QPEYSPESPR	1	8	0	0	0	0
656.25	1310.49	2	27.14	QPEYSPESPR						
			31.3	QPTPPFFGR	1	3	0	0	0	0
570.72	1139.43	2	31.3	QPTPPFFGR						
570.7	1139.39	2	28.29	QPTPPFFGR						
			32.48	QRSNSCDRGSGQQGGGSGCCHGSGGCC	2	10	17	0	0	0
683.72	2730.87	4	32.48	QRSNSCDRGSGQQGGGSGCCHGSGGCC						
			43.09	QRSPSPAPAPAPAAAAGPPTR	2	3	5	0	0	0

714.66	2140.96	3	43.09	QRSPSPAPAPAPAAAAGPPTR						
			33.77	QRVCSGEGPPK	1	5	0	0	0	0
422.18	1263.53	3	33.77	QRVCSGEGPPK						
			27.13	QRVSGNTSR	1	4	0	0	0	0
549.73	1097.45	2	27.13	QRVSGNTSR						
			25.12	QSAPGGGSK	2	2	8	0	0	0
482.2	962.39	2	25.12	QSAPGGGSK						
			27.59	QSHSESPSLQSK	1	4	0	0	0	0
711.81	1421.6	2	27.59	QSHSESPSLQSK						
			32.1	QSHSSSSPHPK	2	4	6	0	0	0
676.72	1351.43	2	32.1	QSHSSSSPHPK						
			49.65	RAGDLLEDSPK	1	9	0	0	0	0
446.54	1336.61	3	49.65	RAGDLLEDSPK						
446.21	1335.6	3	44.86	RAGDLLEDSPK						
446.2	1335.58	3	38.93	RAGDLLEDSPK						
			40.81	RASGQAFELILSPR	2	3	12	0	0	0
578.25	1731.71	3	40.81	RASGQAFELILSPR						
			35.06	RASGQAFELILSPR	1	3	0	0	0	0
551.61	1651.81	3	35.06	RASGQAFELILSPR						
			32.23	RDSFDDR	1	3	0	0	0	0
523.69	1045.37	2	32.23	RDSFDDR						
523.71	1045.4	2	26.41	RDSFDDR						
			37.31	RDSLEEGELR	1	3	0	0	0	0
451.86	1352.56	3	37.31	RDSLEEGELR						
			29.29	RDSLGTYSSR	2	8	9	0	0	0
664.77	1327.52	2	29.29	RDSLGTYSSR						
			25.4	RDSQDGSSYR	1	3	0	0	0	0
646.75	1291.48	2	25.4	RDSQDGSSYR						
			36.08	RDSSGGTK	1	3	0	0	0	0
458.18	914.35	2	36.08	RDSSGGTK						
458.19	914.36	2	33.07	RDSSGGTK						
			30.77	RDYDDMSPR	1	7	0	0	0	0
431.18	1290.52	3	30.77	RDYDDMSPR						
431.19	1290.54	3	29.97	RDYDDMSPR						
			25.7	REEQTDTSDGESVTHHIR	2	5	8	0	0	0
586.21	2340.82	4	25.7	REEQTDTSDGESVTHHIR						
			32.78	RESPSPAPKPR	1	5	0	0	0	0
444.22	1329.65	3	32.78	RESPSPAPKPR						
444.24	1329.7	3	32.62	RESPSPAPKPR						
			28.13	RESPSPAPKPR	2	3	5	0	0	0
705.27	1408.52	2	28.13	RESPSPAPKPR						
470.53	1408.58	3	25.28	RESPSPAPKPR						
			26.9	REVAEAATGEDASSPPPK	3	8	13	14	0	0
708.24	2121.68	3	26.9	REVAEAATGEDASSPPPK						
			28.09	RGGGSSGEIGCFLLSFSEK	3	5	15	17	0	0
554.23	2212.88	4	28.09	RGGGSSGEIGCFLLSFSEK						
417.17	1248.5	3	30.43	RGQASSFPTRK						
			39.25	RGSLSNAGDPEIVK	1	3	0	0	0	0
522.24	1563.68	3	39.25	RGSLSNAGDPEIVK						
			26.52	RGVSTR	2	4	5	0	0	0
425.2	848.39	2	26.52	RGVSTR						
			35.23	RHSHSHSPMSTR	3	3	5	7	0	0
419.14	1672.52	4	35.23	RHSHSHSPMSTR						
419.15	1672.56	4	31.59	RHSHSHSPMSTR						
419.14	1672.51	4	31.45	RHSHSHSPMSTR						
419.39	1673.51	4	29.1	RHSHSHSPMSTR						
419.15	1672.59	4	29.07	RHSHSHSPMSTR						
419.14	1672.52	4	28.96	RHSHSHSPMSTR						
419.14	1672.52	4	28.61	RHSHSHSPMSTR						
419.39	1673.55	4	28.6	RHSHSHSPMSTR						
419.39	1673.52	4	27.46	RHSHSHSPMSTR						
419.13	1672.5	4	27.44	RHSHSHSPMSTR						
419.14	1672.55	4	26.45	RHSHSHSPMSTR						
419.14	1672.51	4	26.14	RHSHSHSPMSTR						
419.14	1672.53	4	26.08	RHSHSHSPMSTR						
			29.78	RICLYQNGYILSPLSYK	3	5	9	12	0	0
572.18	2284.68	4	29.78	RICLYQNGYILSPLSYK						
			42.21	RIDISPSTFR	1	5	0	0	0	0
433.86	1298.56	3	42.21	RIDISPSTFR						
650.26	1298.5	2	36.12	RIDISPSTFR						
			26.42	RKPEEESPR	1	7	0	0	0	0
421.86	1262.56	3	26.42	RKPEEESPR						
			53.37	RKSLSDSESDDSK	2	3	5	0	0	0
561.85	1682.54	3	53.37	RKSLSDSESDDSK						
			45.73	RKSLSDSESDDSK	3	3	5	7	0	0
588.52	1762.54	3	45.73	RKSLSDSESDDSK						
561.83	1682.46	3	42.77	RKSLSDSESDDSK						
842.29	1682.57	2	39.26	RKSLSDSESDDSK						
882.23	1762.44	2	39.22	RKSLSDSESDDSK						
842.31	1682.6	2	28.76	RKSLSDSESDDSK						
			27.09	RKSSSPSLSNCNSVLANK	4	5	7	9	13	0
742.23	2223.68	3	27.09	RKSSSPSLSNCNSVLANK						

			39.92	RLSPSASPPR	3	3	5	7	0	0
441.21	1320.6	3	39.92	RLSPSASPPR						
661.22	1320.43	2	34.13	RLSPSASPPR						
			28.31	RLSPSASPPR	2	3	7	0	0	0
621.69	1241.37	2	28.31	RLSPSASPPR						
			29.85	RLSSASTGKPPLSVEDDFEK	2	3	6	0	0	0
599.01	2392	4	29.85	RLSSASTGKPPLSVEDDFEK						
			26.87	RLSSTSLASGHSVR	1	5	0	0	0	0
518.21	1551.6	3	26.87	RLSSTSLASGHSVR						
			56.43	RNSSEASSGDFLDLK	1	3	0	0	0	0
881.3	1760.58	2	56.43	RNSSEASSGDFLDLK						
587.87	1760.58	3	35.12	RNSSEASSGDFLDLK						
			27.08	RPRKTAPR	1	5	0	0	0	0
538.2	1074.38	2	27.08	RPRKTAPR						
			32.56	RPTLTTFFGR	1	3	0	0	0	0
430.53	1288.57	3	32.56	RPTLTTFFGR						
			34.67	RQSPSPSTRPIR	2	3	5	0	0	0
778.3	1554.59	2	34.67	RQSPSPSTRPIR						
778.32	1554.64	2	30.46	RQSPSPSTRPIR						
778.3	1554.59	2	29.9	RQSPSPSTRPIR						
			35.81	RRSPPADAIPK	1	3	0	0	0	0
439.21	1314.62	3	35.81	RRSPPADAIPK						
439.21	1314.62	3	33.95	RRSPPADAIPK						
			45.93	RRSPSPAPPPR	2	3	5	0	0	0
696.27	1390.53	2	45.93	RRSPSPAPPPR						
464.53	1390.58	3	44.06	RRSPSPAPPPR						
696.27	1390.52	2	37.81	RRSPSPAPPPR						
696.28	1390.55	2	34.76	RRSPSPAPPPR						
			29.77	RRSPSPYYSR	2	3	7	0	0	0
721.72	1441.42	2	29.77	RRSPSPYYSR						
721.72	1441.42	2	29.63	RRSPSPYYSR						
721.72	1441.42	2	29.55	RRSPSPYYSR						
			28.78	RRSQSIEQESQEK	2	3	5	0	0	0
607.89	1820.63	3	28.78	RRSQSIEQESQEK						
			29.57	RRTASPPPPPK	2	3	5	0	0	0
460.21	1377.6	3	29.57	RRTASPPPPPK						
			29.36	RSAAESGSR	1	8	0	0	0	0
514.21	1026.4	2	29.36	RSAAESGSR						
514.21	1026.41	2	25.37	RSAAESGSR						
			30.24	RSETPPHWR	1	4	0	0	0	0
425.19	1272.53	3	30.24	RSETPPHWR						
			27.06	RSPSASPR	1	6	0	0	0	0
476.19	950.37	2	27.06	RSPSASPR						
			39.09	RSPSVSSPEPAEK	4	2	4	6	7	0
866.75	1731.49	2	39.09	RSPSVSSPEPAEK						
			26.36	RSQRMVITAPPVTNQPVTPK	3	2	13	18	0	0
825.05	2472.13	3	26.36	RSQRMVITAPPVTNQPVTPK						
			43.94	RTDALTSSPGR	1	8	0	0	0	0
423.2	1266.58	3	43.94	RTDALTSSPGR						
			30.25	RTDALTSSPGR	2	7	8	0	0	0
450.2	1347.57	3	30.25	RTDALTSSPGR						
			25.51	RTDALTSSPGR	3	6	7	8	0	0
714.71	1427.41	2	25.51	RTDALTSSPGR						
			32.61	RTKRAQSPK	2	2	7	0	0	0
623.18	1244.35	2	32.61	RTKRAQSPK						
			37.19	RTSPQVLGSILK	1	3	0	0	0	0
464.88	1391.62	3	37.19	RTSPQVLGSILK						
			33.78	RVASALLSTRTSPPPK	2	11	12	0	0	0
619.19	1854.55	3	33.78	RVASALLSTRTSPPPK						
			25.45	RVESEESGDEEGKK	2	4	7	0	0	0
613.21	1836.61	3	25.45	RVESEESGDEEGKK						
			37.31	RVPSPTPAPK	1	4	0	0	0	0
572.22	1142.43	2	37.31	RVPSPTPAPK						
			35.45	RVSHSPPPK	2	3	5	0	0	0
589.71	1177.4	2	35.45	RVSHSPPPK						
589.69	1177.37	2	33.6	RVSHSPPPK						
			30.36	RYPSSISSSPQK	1	8	0	0	0	0
715.76	1429.51	2	30.36	RYPSSISSSPQK						
			41.95	RYSPSPPPK	2	3	5	0	0	0
601.67	1201.32	2	41.95	RYSPSPPPK						
601.72	1201.42	2	29.22	RYSPSPPPK						
602.24	1202.46	2	26.76	RYSPSPPPK						
			38.03	SAEKTEK	1	1	0	0	0	0
457.69	913.36	2	38.03	SAEKTEK						
			33.14	SAGSHPGTR	1	4	0	0	0	0
482.19	962.36	2	33.14	SAGSHPGTR						
			35.7	SALSPSKSPAK	2	4	8	0	0	0
623.74	1245.47	2	35.7	SALSPSKSPAK						
			26.79	SAPGTSPR	1	6	0	0	0	0
434.17	866.32	2	26.79	SAPGTSPR						
			65.34	SASADNLTLPR	1	3	0	0	0	0
626.73	1251.44	2	65.34	SASADNLTLPR						

			58.02	SASASHQADIK	1	3	0	0	0	0
611.75	1221.48	2	58.02	SASASHQADIK						
408.51	1222.5	3	28.53	SASASHQADIK						
			33	SASPERMD	2	1	3	0	0	0
547.67	1093.33	2	33	SASPERMD						
547.66	1093.3	2	32.14	SASPERMD						
			47.36	SASPPPATSSSSSSR	2	1	3	0	0	0
790.3	1578.58	2	47.36	SASPPPATSSSSSSR						
			27.87	SASPPQKR	1	3	0	0	0	0
482.71	963.41	2	27.87	SASPPQKR						
			27.59	SASSGSSSTR	5	1	3	4	8	9
670.26	1338.51	2	27.59	SASSGSSSTR						
			32.94	SATRPSPSPER	2	6	8	0	0	0
686.71	1371.41	2	32.94	SATRPSPSPER						
686.75	1371.48	2	31.54	SATRPSPSPER						
			27.87	SATSNKSAGIQSRRK	2	3	12	0	0	0
588.59	1762.76	3	27.87	SATSNKSAGIQSRRK						
			25.57	SCLALVVSPPR	1	1	0	0	0	0
618.21	1234.41	2	25.57	SCLALVVSPPR						
			25.19	SCPCCGTPIEK	2	1	7	0	0	0
442.21	1323.62	3	25.19	SCPCCGTPIEK						
			44.57	SDSLLSFR	1	3	0	0	0	0
516.71	1031.4	2	44.57	SDSLLSFR						
			26.03	SDSSSSLPK	2	1	5	0	0	0
548.22	1094.42	2	26.03	SDSSSSLPK						
			26.48	SELPHSSNGRTK	1	6	0	0	0	0
473.83	1418.45	3	26.48	SELPHSSNGRTK						
			30.13	SESESK	1	3	0	0	0	0
788.68	787.67	1	30.13	SESESK						
			49.47	SESPKEPEQLR	1	1	0	0	0	0
479.16	1434.47	3	49.47	SESPKEPEQLR						
718.25	1434.48	2	40.7	SESPKEPEQLR						
479.2	1434.58	3	38.67	SESPKEPEQLR						
718.23	1434.45	2	36.94	SESPKEPEQLR						
			37.4	SESPKEPEQLRK	1	3	0	0	0	0
521.91	1562.71	3	37.4	SESPKEPEQLRK						
			27.72	SESWER	1	3	0	0	0	0
458.17	914.32	2	27.72	SESWER						
			31.2	SFLSEPSSPGR	1	7	0	0	0	0
636.22	1270.43	2	31.2	SFLSEPSSPGR						
			31.88	SFSKEVEER	1	3	0	0	0	0
623.73	1245.44	2	31.88	SFSKEVEER						
			25.48	SFSPTMK	1	3	0	0	0	0
446.18	890.35	2	25.48	SFSPTMK						
			29.07	SFTASSTLTTHK	3	6	9	10	0	0
512.22	1533.65	3	29.07	SFTASSTLTTHK						
567.19	1132.36	2	29.21	SGAEDQTPK						
			56.25	SGAGSSPETK	1	6	0	0	0	0
514.7	1027.38	2	56.25	SGAGSSPETK						
			36.78	SGAHSSASPPR	1	6	0	0	0	0
574.19	1146.36	2	36.78	SGAHSSASPPR						
			34.06	SGAPSGNISQR	1	1	0	0	0	0
583.72	1165.42	2	34.06	SGAPSGNISQR						
583.71	1165.41	2	26.37	SGAPSGNISQR						
583.73	1165.44	2	25.84	SGAPSGNISQR						
			31.63	SGDDKDK	1	1	0	0	0	0
450.68	899.36	2	31.63	SGDDKDK						
			50.8	SGDETPGSEVPGDK	1	1	0	0	0	0
762.85	1523.69	2	50.8	SGDETPGSEVPGDK						
			49.83	SGMSPEQSR	1	4	0	0	0	0
543.69	1085.37	2	49.83	SGMSPEQSR						
			25.03	SGNSDSIER	1	1	0	0	0	0
543.2	1084.38	2	25.03	SGNSDSIER						
			25.68	SGRSLNEELGDEDSEK	2	1	14	0	0	0
674.75	2021.22	3	25.68	SGRSLNEELGDEDSEK						
			30.72	SGSAHGSGKSARHTPAR	4	1	3	10	14	0
500.17	1996.64	4	30.72	SGSAHGSGKSARHTPAR						
			54.5	SGSMDPSGAHPSVR	1	3	0	0	0	0
746.78	1491.55	2	54.5	SGSMDPSGAHPSVR						
498.19	1491.55	3	26.61	SGSMDPSGAHPSVR						
			26.21	SGSNLPISPK	3	1	3	8	0	0
418.2	1251.58	3	26.21	SGSNLPISPK						
			36.38	SGSPKEPEQLRK	2	1	3	0	0	0
519.54	1555.59	3	36.38	SGSPKEPEQLRK						
			26.32	SGSYFALTDDSKR	4	1	3	4	11	0
603.35	1807.02	3	26.32	SGSYFALTDDSKR						
			26.77	SGVQDQPDQHGETLSPPK	3	1	13	15	0	0
554.81	2215.22	4	26.77	SGVQDQPDQHGETLSPPK						
			25.56	SHSGSSSPSPSR	1	3	0	0	0	0
633.73	1265.45	2	25.56	SHSGSSSPSPSR						
			32.98	SIKKTPK	1	5	0	0	0	0
447.72	893.43	2	32.98	SIKKTPK						

			25.95	SILPYPVSPK	1	8	0	0	0	0
597.27	1192.52	2	25.95	SILPYPVSPK						
			26	SIQKYPANSIWCTK	2	1	9	0	0	0
454.22	1812.87	4	26	SIQKYPANSIWCTK						
			33.51	SIRDTPAK	1	5	0	0	0	0
498.18	994.34	2	33.51	SIRDTPAK						
			29.33	SISLR	1	1	0	0	0	0
669.27	668.26	1	29.33	SISLR						
			41.14	SKDEYEKSR	2	1	8	0	0	0
679.24	1356.46	2	41.14	SKDEYEKSR						
			43.2	SKESVPEFPLSPPK	1	11	0	0	0	0
555.26	1662.74	3	43.2	SKESVPEFPLSPPK						
			25.76	SKLSPSPSLR	2	4	6	0	0	0
623.71	1245.41	2	25.76	SKLSPSPSLR						
			25.11	SKNPSGKNRETVPIK	1	1	0	0	0	0
588.28	1761.83	3	25.11	SKNPSGKNRETVPIK						
			30.06	SKPSSASSKR	2	5	7	0	0	0
403.16	1206.47	3	30.06	SKPSSASSKR						
			26.41	SKPSSSEEDEGPGDKQEK	3	4	5	6	0	0
758.28	2271.83	3	26.41	SKPSSSEEDEGPGDKQEK						
			28.6	SKPSTPTTR	3	1	7	8	0	0
410.18	1227.51	3	28.6	SKPSTPTTR						
			41.96	SKSKDQAEEK	2	1	3	0	0	0
683.75	1365.48	2	41.96	SKSKDQAEEK						
455.84	1364.51	3	25.57	SKSKDQAEEK						
			26.69	SKSPFRK	2	1	3	0	0	0
512.2	1022.39	2	26.69	SKSPFRK						
512.22	1022.43	2	25.14	SKSPFRK						
			36.47	SKSPPKSPEEEGAVSS	4	1	3	7	15	0
664.55	1990.62	3	36.47	SKSPPKSPEEEGAVSS						
664.52	1990.55	3	32.64	SKSPPKSPEEEGAVSS						
			29.56	SLCARSLAEEALRTDILCNLPSYK	3	1	22	23	0	0
741.25	2960.97	4	29.56	SLCARSLAEEALRTDILCNLPSYK						
			26.29	SLDSNDSGVYTSACKR	6	1	4	7	10	11
556.81	2223.2	4	26.29	SLDSNDSGVYTSACKR						
			26.08	SLKIKGEELSEANVRLSLLEK	3	1	10	17	0	0
667.29	2665.14	4	26.08	SLKIKGEELSEANVRLSLLEK						
			32.23	SLLSSPTK	1	5	0	0	0	0
464.2	926.39	2	32.23	SLLSSPTK						
			58.12	SLMSSPEDLTK	2	4	5	0	0	0
705.69	1409.37	2	58.12	SLMSSPEDLTK						
			40.56	SLSDSESDDSK	2	1	7	0	0	0
700.17	1398.33	2	40.56	SLSDSESDDSK						
			38.47	SLSDSESDDSK	1	3	0	0	0	0
660.25	1318.49	2	38.47	SLSDSESDDSK						
700.17	1398.33	2	28.96	SLSDSESDDSK						
			25.46	SLSEGPPK	2	1	3	0	0	0
502.21	1002.4	2	25.46	SLSEGPPK						
			67.23	SLSPGGAALGYR	1	1	0	0	0	0
621.72	1241.42	2	67.23	SLSPGGAALGYR						
			25.95	SLTNSHLEK	2	1	5	0	0	0
608.72	1215.43	2	25.95	SLTNSHLEK						
			31.47	SLTRSPPAIR	3	1	3	5	0	0
451.19	1350.54	3	31.47	SLTRSPPAIR						
			28.68	SMTSLAQK	1	1	0	0	0	0
479.69	957.37	2	28.68	SMTSLAQK						
			46.9	SNGDLSPK	1	1	0	0	0	0
463.18	924.35	2	46.9	SNGDLSPK						
			31.73	SNSKER	1	3	0	0	0	0
414.67	827.32	2	31.73	SNSKER						
414.66	827.31	2	28.24	SNSKER						
414.66	827.32	2	27.94	SNSKER						
			49.79	SNSPLPVPPSK	1	1	0	0	0	0
608.76	1215.5	2	49.79	SNSPLPVPPSK						
			25.87	SPDKPGGSPSASR	1	1	0	0	0	0
675.79	1349.56	2	25.87	SPDKPGGSPSASR						
			37.48	SPEAQPK	1	1	0	0	0	0
432.68	863.34	2	37.48	SPEAQPK						
			32.47	SPEIHR	1	1	0	0	0	0
423.66	845.31	2	32.47	SPEIHR						
			27.87	SPFLKPDER	1	1	0	0	0	0
404.18	1209.51	3	27.87	SPFLKPDER						
			26.17	SPFSESHSTEATSR	4	1	8	9	13	0
628.79	1883.34	3	26.17	SPFSESHSTEATSR						
			54.7	SPGASNFSTLPK	1	1	0	0	0	0
650.25	1298.48	2	54.7	SPGASNFSTLPK						
			27.74	SPGGSTSR	1	7	0	0	0	0
421.17	840.33	2	27.74	SPGGSTSR						
			58.88	SPGHMVILDQTK	1	1	0	0	0	0
478.55	1432.62	3	58.88	SPGHMVILDQTK						
478.55	1432.62	3	49.14	SPGHMVILDQTK						
717.25	1432.49	2	38.56	SPGHMVILDQTK						

			62.2	SPGMLEPLGSSR	1	1	0	0	0	0
669.76	1337.51	2	62.2	SPGMLEPLGSSR						
			25.85	SPGPIVSR	1	1	0	0	0	0
453.21	904.41	2	25.85	SPGPIVSR						
			37.13	SPGSTPTTPTSSQAPQK	2	4	7	0	0	0
615.9	1844.68	3	37.13	SPGSTPTTPTSSQAPQK						
923.33	1844.65	2	36.68	SPGSTPTTPTSSQAPQK						
			26.86	SPILLPK	1	1	0	0	0	0
431.19	860.37	2	26.86	SPILLPK						
			29.99	SPILSGPK	2	1	5	0	0	0
487.2	972.39	2	29.99	SPILSGPK						
			30.97	SPLVAMLSGPR	1	8	0	0	0	0
408.18	1221.52	3	30.97	SPLVAMLSGPR						
			34.39	SPPADAIPK	1	1	0	0	0	0
502.25	1002.48	2	34.39	SPPADAIPK						
			30.62	SPPKADEK	1	1	0	0	0	0
497.26	992.5	2	30.62	SPPKADEK						
489.21	976.41	2	25.05	SPPKSPEK						
			29.78	SPPLPAVIR	1	1	0	0	0	0
522.23	1042.46	2	29.78	SPPLPAVIR						
			25.07	SPPPR	1	1	0	0	0	0
647.33	646.32	1	25.07	SPPPR						
647.33	646.32	1	25.07	SPPPR						
			26.2	SPPPVSK	1	1	0	0	0	0
403.18	804.34	2	26.2	SPPPVSK						
			55.04	SPPSTGSTYGSSQK	1	1	0	0	0	0
739.27	1476.53	2	55.04	SPPSTGSTYGSSQK						
739.26	1476.51	2	44.11	SPPSTGSTYGSSQK						
			26.35	SPQPDPVK	1	1	0	0	0	0
488.69	975.37	2	26.35	SPQPDPVK						
			32.78	SPQPPSR	1	1	0	0	0	0
431.67	861.33	2	32.78	SPQPPSR						
			27.83	SPQPVLPCWK	1	1	0	0	0	0
416.52	1246.54	3	27.83	SPQPVLPCWK						
			25.01	SPRGSPDGSLQTGKPSAPK	4	1	5	9	16	0
554.23	2212.88	4	25.01	SPRGSPDGSLQTGKPSAPK						
			30.48	SPSKPLPEVTDEYK	1	1	0	0	0	0
576.21	1725.61	3	30.48	SPSKPLPEVTDEYK						
			28.95	SPSLGMLSTATR	4	1	3	9	11	0
519.16	1554.47	3	28.95	SPSLGMLSTATR						
			46.08	SPSLSSK	1	1	0	0	0	0
400.15	798.29	2	46.08	SPSLSSK						
400.15	798.29	2	46.08	SPSLSSK						
400.15	798.29	2	46.08	SPSLSSK						
			33.51	SPSPAHLPDDPK	1	1	0	0	0	0
461.64	1381.88	3	33.51	SPSPAHLPDDPK						
			43.98	SPSPKPTK	2	1	3	0	0	0
508.19	1014.36	2	43.98	SPSPKPTK						
508.18	1014.35	2	38.48	SPSPKPTK						
508.19	1014.37	2	31.23	SPSPKPTK						
508.19	1014.36	2	28.25	SPSPKPTK						
508.19	1014.36	2	27.06	SPSPKPTK						
			28.84	SPSPPPK	2	1	3	0	0	0
442.2	882.38	2	28.84	SPSPPPK						
			30.21	SPSPSPTPEAK	2	1	3	0	0	0
643.19	1284.38	2	30.21	SPSPSPTPEAK						
			29.72	SPSPYYSR	2	1	3	0	0	0
566.2	1130.39	2	29.72	SPSPYYSR						
566.2	1130.39	2	29.72	SPSPYYSR						
			25.11	SPSSLSANISSSPK	4	1	4	11	12	0
565.92	1694.75	3	25.11	SPSSLSANISSSPK						
			36.56	SPTKTDPK	1	1	0	0	0	0
491.21	980.41	2	36.56	SPTKTDPK						
			37.92	SPVFSDEDSDLDFDISK	3	1	5	9	0	0
752.35	2254.02	3	37.92	SPVFSDEDSDLDFDISK						
			44.76	SPVGKSPPSTGSTYGSSQK	2	1	6	0	0	0
676.23	2025.67	3	44.76	SPVGKSPPSTGSTYGSSQK						
			39.28	SPVPSAFSDQSR	1	1	0	0	0	0
693.27	1384.52	2	39.28	SPVPSAFSDQSR						
			35.16	SQEDLNEPIKR	1	1	0	0	0	0
489.24	1464.71	3	35.16	SQEDLNEPIKR						
			55.97	SQSSDTEQQSPTSGGGK	2	1	10	0	0	0
941.84	1881.67	2	55.97	SQSSDTEQQSPTSGGGK						
			26.67	SRASPVSR	2	1	4	0	0	0
517.19	1032.37	2	26.67	SRASPVSR						
			26.32	SRPDSPR	1	5	0	0	0	0
461.69	921.36	2	26.32	SRPDSPR						
			37.67	SRSGEGEVSGLMR	1	1	0	0	0	0
496.54	1486.59	3	37.67	SRSGEGEVSGLMR						
			44.32	SRSGSDSDDDDSHSK	4	1	3	5	7	0
666.81	1997.41	3	44.32	SRSGSDSDDDDSHSK						
			31.16	SRSHSPMSNR	3	1	3	5	0	0

706.66	1411.31	2	31.16	SRSHSPMSNR						
			43.98	SRSPESQVIGENTK	2	1	3	0	0	0
867.32	1732.63	2	43.98	SRSPESQVIGENTK						
			32.7	SRSPGRPPK	2	1	3	0	0	0
578.21	1154.4	2	32.7	SRSPGRPPK						
			28.94	SRSPLAIR	2	1	3	0	0	0
537.23	1072.45	2	28.94	SRSPLAIR						
537.23	1072.45	2	28.31	SRSPLAIR						
			26.03	SRSPLGFYVHLK	2	1	3	0	0	0
526.55	1576.63	3	26.03	SRSPLGFYVHLK						
			38.24	SRSPLLNDR	2	1	3	0	0	0
623.22	1244.43	2	38.24	SRSPLLNDR						
			27.33	SRSPPPVSK	2	1	3	0	0	0
564.66	1127.31	2	27.33	SRSPPPVSK						
564.69	1127.37	2	25.74	SRSPPPVSK						
			53.11	SRSPSSPELNNK	3	1	3	5	0	0
792.28	1582.54	2	53.11	SRSPSSPELNNK						
			31.26	SRSPSSPELNNK	4	1	3	5	6	0
832.16	1662.3	2	31.26	SRSPSSPELNNK						
			28.91	SRSRSRSPGRPPK	4	1	3	5	7	0
601.23	1800.66	3	28.91	SRSRSRSPGRPPK						
			37.77	SRSSDIVSSVR	1	3	0	0	0	0
434.53	1300.55	3	37.77	SRSSDIVSSVR						
			35.83	SRSSSSPPPK	2	1	3	0	0	0
602.22	1202.42	2	35.83	SRSSSSPPPK						
602.23	1202.44	2	27.45	SRSSSSPPPK						
602.23	1202.45	2	27.38	SRSSSSPPPK						
602.22	1202.43	2	26.83	SRSSSSPPPK						
602.24	1202.46	2	26.36	SRSSSSPPPK						
			29.21	SRSWEDSPER	2	3	7	0	0	0
489.2	1464.57	3	29.21	SRSWEDSPER						
			25.2	SRSYTPEYR	3	1	3	5	0	0
713.69	1425.37	2	25.2	SRSYTPEYR						
			35.15	SRTPPSAPSQSR	1	3	0	0	0	0
455.54	1363.61	3	35.15	SRTPPSAPSQSR						
			28.75	SRTSPAPWK	2	1	4	0	0	0
602.22	1202.42	2	28.75	SRTSPAPWK						
			25.19	SSDPPDPVTPR	1	1	0	0	0	0
430.22	1287.63	3	25.19	SSDPPDPVTPR						
			29.08	SSDVFSSK	1	1	0	0	0	0
482.2	962.39	2	29.08	SSDVFSSK						
			29.64	SSESSMSETESDSK	4	1	2	9	11	0
627.76	1880.27	3	29.64	SSESSMSETESDSK						
			28.84	SSFFSDRGSGSR	1	9	0	0	0	0
466.7	1397.08	3	28.84	SSFFSDRGSGSR						
			38.93	SSFSHYSGLK	1	1	0	0	0	0
603.26	1204.51	2	38.93	SSFSHYSGLK						
			132.32	SSGSPYGGGYGSGGGSGGYGSR	1	4	0	0	0	0
1002.79	2003.56	2	132.32	SSGSPYGGGYGSGGGSGGYGSR						
668.93	2003.76	3	87.59	SSGSPYGGGYGSGGGSGGYGSR						
			27.9	SSHSSSSGNGK	3	4	5	6	0	0
430.19	1287.55	3	27.9	SSHSSSSGNGK						
			25.39	SSLIVATTSGSESIKNDEITHDK	3	1	9	20	0	0
686.32	2741.24	4	25.39	SSLIVATTSGSESIKNDEITHDK						
			66.19	SSMSGLHLVK	1	4	0	0	0	0
576.73	1151.45	2	66.19	SSMSGLHLVK						
576.72	1151.42	2	58.14	SSMSGLHLVK						
			35.68	SSPASTPSR	1	1	0	0	0	0
492.2	982.38	2	35.68	SSPASTPSR						
			26.61	SSPEQPRPSTSK	1	2	0	0	0	0
470.53	1408.57	3	26.61	SSPEQPRPSTSK						
			28.33	SSQMLFYICK	2	1	2	0	0	0
465.55	1393.64	3	28.33	SSQMLFYICK						
			29.5	SSRSPSR	3	1	4	6	0	0
515.21	1028.4	2	29.5	SSRSPSR						
			31.17	SSSASSPPKK	1	5	0	0	0	0
535.21	1068.4	2	31.17	SSSASSPPKK						
			25.74	SSSCGSGGGGISPK	1	12	0	0	0	0
425.5	1273.47	3	25.74	SSSCGSGGGGISPK						
			51.4	SSSFGNFDR	1	1	0	0	0	0
562.68	1123.35	2	51.4	SSSFGNFDR						
			47.86	SSSHSSPGSPK	1	9	0	0	0	0
576.2	1150.39	2	47.86	SSSHSSPGSPK						
			28.63	SSSKESK	2	2	3	0	0	0
470.69	939.37	2	28.63	SSSKESK						
			29.27	SSSLSDGGDVGLVPSK	4	1	2	3	15	0
623.23	1866.66	3	29.27	SSSLSDGGDVGLVPSK						
			32.59	SSSPLSK	1	3	0	0	0	0
400.17	798.32	2	32.59	SSSPLSK						
			26.46	SSSPPPRK	1	3	0	0	0	0
475.2	948.38	2	26.46	SSSPPPRK						
			28.36	SSSPTQYGLTK	1	1	0	0	0	0

631.24	1260.47	2	28.36	SSSPTQYGLTK						
			30.56	SSSPVNVK	1	3	0	0	0	0
456.2	910.38	2	30.56	SSSPVNVK						
			38.08	SSSPVTELASR	1	3	0	0	0	0
621.24	1240.47	2	38.08	SSSPVTELASR						
			25.74	SSSQPSPSDPK	1	6	0	0	0	0
612.76	1223.5	2	25.74	SSSQPSPSDPK						
			25.81	SSSVIHRTASAHKSGR	3	1	3	14	0	0
645.22	1932.63	3	25.81	SSSVIHRTASAHKSGR						
			26.61	SSTPLSHDLMTTTALK	1	1	0	0	0	0
453.2	1808.78	4	26.61	SSTPLSHDLMTTTALK						
			28.32	SSTPTPR	1	3	0	0	0	0
420.18	838.34	2	28.32	SSTPTPR						
			31.04	SSVRLLIRK	2	1	2	0	0	0
623.69	1245.37	2	31.04	SSVRLLIRK						
			30.16	STAGKAAATQPAK	3	1	2	9	0	0
486.21	1455.61	3	30.16	STAGKAAATQPAK						
			28.88	STANQSFR	1	6	0	0	0	0
502.25	1002.48	2	28.88	STANQSFR						
			28.52	STASPASTK	1	4	0	0	0	0
472.2	942.39	2	28.52	STASPASTK						
			25.31	STEDKSCSSRLTDR	2	1	9	0	0	0
601.18	1800.52	3	25.31	STEDKSCSSRLTDR						
			29.1	STELLIR	1	2	0	0	0	0
470.21	938.4	2	29.1	STELLIR						
			44.04	STNTAVSR	1	1	0	0	0	0
465.21	928.4	2	44.04	STNTAVSR						
			27.44	STPASQK	1	5	0	0	0	0
407.17	812.32	2	27.44	STPASQK						
			25.41	STPSSSPSLRK	2	5	6	0	0	0
441.19	1320.55	3	25.41	STPSSSPSLRK						
			25.58	STSGGTAALGCLVKDYFPEPVTVS	4	2	3	16	22	0
690.98	2759.88	4	25.58	STSGGTAALGCLVKDYFPEPVTVS						
			29.93	STSLSSPR	2	3	6	0	0	0
504.24	1006.46	2	29.93	STSLSSPR						
504.18	1006.35	2	28.68	STSLSSPR						
504.23	1006.45	2	26.04	STSLSSPR						
			33.12	STSMIPK	1	1	0	0	0	0
429.19	856.36	2	33.12	STSMIPK						
			30.34	STSPPSR	1	1	0	0	0	0
413.16	824.31	2	30.34	STSPPSR						
			27.34	STSTPAGTKK	2	1	8	0	0	0
576.23	1150.44	2	27.34	STSTPAGTKK						
			28.47	STSTSSMKK	1	5	0	0	0	0
525.71	1049.4	2	28.47	STSTSSMKK						
525.71	1049.4	2	28.47	STSTSSMKK						
			28.75	STVETVVK	2	1	2	0	0	0
525.18	1048.35	2	28.75	STVETVVK						
			25.7	SVDQGGGGSPR	1	9	0	0	0	0
562.69	1123.37	2	25.7	SVDQGGGGSPR						
			29.79	SVFTSSLFQMEPSPRNQRK	3	4	5	13	0	0
627.24	2504.94	4	29.79	SVFTSSLFQMEPSPRNQRK						
			27.23	SVGTFAR	2	1	4	0	0	0
455.69	909.37	2	27.23	SVGTFAR						
			29.85	SVNSSLK	2	1	5	0	0	0
454.71	907.41	2	29.85	SVNSSLK						
			36.68	SVSGSPEPAAK	3	1	3	5	0	0
648.77	1295.52	2	36.68	SVSGSPEPAAK						
			49.76	SVVSDLEADDVK	1	4	0	0	0	0
713.75	1425.48	2	49.76	SVVSDLEADDVK						
			39.06	SVVSDLEADDVK	2	1	4	0	0	0
502.72	1505.13	3	39.06	SVVSDLEADDVK						
			35.12	SVVSFDKVK	1	4	0	0	0	0
558.76	1115.5	2	35.12	SVVSFDKVK						
			27.99	SVVSPVKSRVDVISSAK	2	1	14	0	0	0
487.23	1944.88	4	27.99	SVVSPVKSRVDVISSAK						
			46.99	SWSPPPEVSR	1	1	0	0	0	0
417.18	1248.52	3	46.99	SWSPPPEVSR						
625.21	1248.41	2	31.99	SWSPPPEVSR						
625.25	1248.49	2	31.2	SWSPPPEVSR						
417.18	1248.53	3	28.71	SWSPPPEVSR						
			37.47	SYSPDGKESPSDKK	2	1	9	0	0	0
870.86	1739.71	2	37.47	SYSPDGKESPSDKK						
870.79	1739.57	2	31.22	SYSPDGKESPSDKK						
581.23	1740.65	3	27.3	SYSPDGKESPSDKK						
580.86	1739.57	3	26.16	SYSPDGKESPSDKK						
			34.1	SYSPER	1	3	0	0	0	0
423.18	844.35	2	34.1	SYSPER						
			42.09	TAVSVTQGGHSR	1	11	0	0	0	0
647.29	1292.56	2	42.09	TAVSVTQGGHSR						
			28.2	TCCSPK	2	1	4	0	0	0
407.19	812.36	2	28.2	TCCSPK						

			32.54	TCPLSWVQRVHAHK	1	1	0	0	0	0
878.4	1754.78	2	32.54	TCPLSWVQRVHAHK						
			26.48	TDALTSSPGR	2	6	7	0	0	0
596.7	1191.38	2	26.48	TDALTSSPGR						
			27.73	TDPAPEETPEPTQPPR	1	12	0	0	0	0
637.57	1909.69	3	27.73	TDPAPEETPEPTQPPR						
			45.16	TDSSPNQAR	1	4	0	0	0	0
542.19	1082.36	2	45.16	TDSSPNQAR						
567.19	1132.36	2	29.21	TERSQTPK						
			32.79	TFSATVR	1	3	0	0	0	0
438.19	874.36	2	32.79	TFSATVR						
			25.35	TFTCSSTLVK	3	5	6	7	0	0
670.27	1338.52	2	25.35	TFTCSSTLVK						
			25.73	TFTFNSDLVR	2	1	6	0	0	0
463.17	1386.5	3	25.73	TFTFNSDLVR						
			26.45	TGPQSAGR	1	5	0	0	0	0
434.69	867.36	2	26.45	TGPQSAGR						
			35.4	TGSGSPFAGNSPAR	2	5	11	0	0	0
740.23	1478.44	2	35.4	TGSGSPFAGNSPAR						
			56.1	TGVTSTSDSEEEGDDQEGEK	2	5	9	0	0	0
796.1	2385.28	3	56.1	TGVTSTSDSEEEGDDQEGEK						
			57.56	TGVTSTSDSEEEGDDQEGEKK	2	7	9	0	0	0
838.62	2512.85	3	57.56	TGVTSTSDSEEEGDDQEGEKK						
			25.53	THGSSVPK	1	4	0	0	0	0
453.21	904.41	2	25.53	THGSSVPK						
			43.14	THTTALAGRSPSPASGR	2	10	12	0	0	0
920.87	1839.73	2	43.14	THTTALAGRSPSPASGR						
			46.81	TIASDSEEEAGK	2	4	6	0	0	0
733.73	1465.45	2	46.81	TIASDSEEEAGK						
			47.46	TIASDSEEEAGKELSDK	2	4	6	0	0	0
689.55	2065.61	3	47.46	TIASDSEEEAGKELSDK						
			30.3	TIPPGISPHVCK	1	1	0	0	0	0
672.1	1342.19	2	30.3	TIPPGISPHVCK						
			33.69	TIVMGASFR	1	7	0	0	0	0
538.22	1074.42	2	33.69	TIVMGASFR						
			28.52	TKADVTPPPDGSTTHNLEVSPK	4	1	12	13	20	0
667.31	2665.22	4	28.52	TKADVTPPPDGSTTHNLEVSPK						
			35.61	TKSDESGEEK	2	3	6	0	0	0
670.16	1338.3	2	35.61	TKSDESGEEK						
			25.43	TKSPGIVSR	3	1	3	8	0	0
400.19	1197.54	3	25.43	TKSPGIVSR						
			31.75	TKSSKELLTLSQKTK	3	3	4	9	0	0
654.21	1959.61	3	31.75	TKSSKELLTLSQKTK						
			26.3	TLALSSPTK	3	1	6	8	0	0
586.23	1170.44	2	26.3	TLALSSPTK						
			35.77	TLSMDKGF	1	3	0	0	0	0
503.68	1005.35	2	35.77	TLSMDKGF						
			28.97	TPEPK	1	1	0	0	0	0
679.25	678.24	1	28.97	TPEPK						
			30.78	TPPVVIK	1	1	0	0	0	0
424.21	846.4	2	30.78	TPPVVIK						
			35.37	TPSFLKK	1	3	0	0	0	0
457.72	913.42	2	35.37	TPSFLKK						
			36.82	TPSGEFLER	1	3	0	0	0	0
579.22	1156.42	2	36.82	TPSGEFLER						
			29.39	TPSQER	1	3	0	0	0	0
413.69	825.36	2	29.39	TPSQER						
			26.43	TPSVSSINRVLR	1	5	0	0	0	0
474.56	1420.66	3	26.43	TPSVSSINRVLR						
			33.3	TPTPPPR	2	1	3	0	0	0
470.18	938.34	2	33.3	TPTPPPR						
470.67	939.32	2	30.97	TPTPPPR						
470.2	938.4	2	29.06	TPTPPPR						
			25.53	TQHETTR	2	1	6	0	0	0
531.18	1060.35	2	25.53	TQHETTR						
			28.36	TRAVEAPAAAR	1	1	0	0	0	0
610.72	1219.43	2	28.36	TRAVEAPAAAR						
			28.07	TRDYASLPPK	1	6	0	0	0	0
419.54	1255.58	3	28.07	TRDYASLPPK						
			39.45	TRHSPTPQQSNR	1	4	0	0	0	0
501.55	1501.63	3	39.45	TRHSPTPQQSNR						
751.8	1501.58	2	28.07	TRHSPTPQQSNR						
			27.95	TRLSPPR	1	1	0	0	0	0
460.23	918.44	2	27.95	TRLSPPR						
460.72	919.43	2	25.48	TRLSPPR						
			25.27	TSDTETEPSK	1	2	0	0	0	0
615.67	1229.33	2	25.27	TSDTETEPSK						
			51.83	TSGSKER	1	4	0	0	0	0
436.67	871.33	2	51.83	TSGSKER						
			27.56	TSLGITTVLTMTTLSTIARK	6	1	6	12	13	15
651.1	2600.37	4	27.56	TSLGITTVLTMTTLSTIARK						
			30.55	TSPDTLR	1	1	0	0	0	0

449.22	896.42	2	30.55	TSPDTLR						
449.19	896.36	2	29.03	TSPDTLR						
			25.38	TSPKNSLK	2	1	6	0	0	0
524.21	1046.41	2	25.38	TSPKNSLK						
			35.19	TSPPLLDR	1	2	0	0	0	0
503.71	1005.41	2	35.19	TSPPLLDR						
503.72	1005.42	2	25.47	TSPPLLDR						
			28.29	TSPSKSPFLHSGMK	2	4	6	0	0	0
420.18	1676.71	4	28.29	TSPSKSPFLHSGMK						
			27.02	TSSGPGPR	1	3	0	0	0	0
426.18	850.34	2	27.02	TSSGPGPR						
			27.27	TSTTPR	2	1	4	0	0	0
418.17	834.32	2	27.27	TSTTPR						
			25.41	TSTVSSPLTSPTSPSTLSSK	7	1	6	10	13	15
635.32	2537.26	4	25.41	TSTVSSPLTSPTSPSTLSSK						
			27.59	TSVLWK	1	1	0	0	0	0
414.17	826.32	2	27.59	TSVLWK						
			28.4	TTRSVVHPK	3	1	2	4	0	0
640.2	1278.39	2	28.4	TTRSVVHPK						
			25.98	TTSLKILPK	3	1	2	3	0	0
419.18	1254.51	3	25.98	TTSLKILPK						
			28.47	TTSSSGVSPR	3	1	2	5	0	0
411.15	1230.44	3	28.47	TTSSSGVSPR						
			31.9	TTTAAAVASTGPSSRSPSTLLPK	7	1	10	13	14	16
694.6	2774.35	4	31.9	TTTAAAVASTGPSSRSPSTLLPK						
			25.74	TTTAPGGKAKGRPK	1	1	0	0	0	0
488.51	1462.51	3	25.74	TTTAPGGKAKGRPK						
			25.65	TVCAARTQGGKSQK	2	1	12	0	0	0
403.18	1608.7	4	25.65	TVCAARTQGGKSQK						
			26.52	TVFSPTLPAAR	1	4	0	0	0	0
627.24	1252.47	2	26.52	TVFSPTLPAAR						
			34.68	TVTINASSSR	3	1	7	9	0	0
644.7	1287.38	2	34.68	TVTINASSSR						
			34.02	VALISPK	1	5	0	0	0	0
411.17	820.33	2	34.02	VALISPK						
411.17	820.33	2	30.63	VALISPK						
411.17	820.33	2	29.6	VALISPK						
411.67	821.32	2	27.58	VALISPK						
			26.36	VASAGSAISNASGERLSQLLK	2	6	9	0	0	0
562.69	2246.72	4	26.36	VASAGSAISNASGERLSQLLK						
			36.74	VEMYSGSDDDDDFNKLPK	2	5	7	0	0	0
584.23	2332.87	4	36.74	VEMYSGSDDDDDFNKLPK						
			44.69	VFPSVASPQK	1	7	0	0	0	0
577.22	1152.43	2	44.69	VFPSVASPQK						
577.23	1152.44	2	41.8	VFPSVASPQK						
			25.98	VGSATALDSWG	3	3	5	9	0	0
444.21	1329.61	3	25.98	VGSATALDSWG						
			27.46	VHVQFFDDSPTR	1	9	0	0	0	0
523.89	1568.65	3	27.46	VHVQFFDDSPTR						
			27.8	VKSPSPK	2	3	5	0	0	0
458.68	915.35	2	27.8	VKSPSPK						
458.69	915.36	2	25.14	VKSPSPK						
			29.15	VLIASGVPTVPVK	1	5	0	0	0	0
687.12	1372.23	2	29.15	VLIASGVPTVPVK						
			28.02	VLKSGVDPTASLLKGGVDPTASR	3	4	11	22	0	0
638.23	2548.88	4	28.02	VLKSGVDPTASLLKGGVDPTASR						
			51.7	VLSPLIIK	1	3	0	0	0	0
488.79	975.56	2	51.7	VLSPLIIK						
			40.48	VMDSDEDDDY	1	4	0	0	0	0
691.18	1380.35	2	40.48	VMDSDEDDDY						
			25.06	VPPTGPVKEK	1	4	0	0	0	0
580.2	1158.38	2	25.06	VPPTGPVKEK						
			25.64	VPSTPPPK	1	3	0	0	0	0
458.23	914.44	2	25.64	VPSTPPPK						
			44.62	VPSVESLFR	1	3	0	0	0	0
571.24	1140.47	2	44.62	VPSVESLFR						
571.23	1140.45	2	27.11	VPSVESLFR						
			46.81	VQAGPGSPR	1	7	0	0	0	0
481.68	961.34	2	46.81	VQAGPGSPR						
			32.08	VQASTEK	1	5	0	0	0	0
436.17	870.32	2	32.08	VQASTEK						
			61.98	VQEHEDSGDSEVENEAK	2	7	10	0	0	0
725.21	2172.62	3	61.98	VQEHEDSGDSEVENEAK						
			30.35	VQLQNGDSYEATIK	2	8	12	0	0	0
589.56	1765.66	3	30.35	VQLQNGDSYEATIK						
			26.17	VRSPTRSPSVKTSPR	4	3	7	9	12	0
663.23	1986.67	3	26.17	VRSPTRSPSVKTSPR						
			36.68	VSAEEAGK	1	2	0	0	0	0
456.22	910.43	2	36.68	VSAEEAGK						
			32.85	VSGGSGSR	1	7	0	0	0	0
400.15	798.29	2	32.85	VSGGSGSR						
			25.65	VSGITGSR	1	7	0	0	0	0

435.68	869.36	2	25.65	VSGITGSR						
			27.55	VSNTTVV	1	4	0	0	0	0
406.68	811.34	2	27.55	VSNTTVV						
			28.04	VSVKSRITINPDTSK	3	5	13	14	0	0
638.27	1911.79	3	28.04	VSVKSRITINPDTSK						
			27.6	VSVSPGR	2	2	4	0	0	0
438.16	874.31	2	27.6	VSVSPGR						
			28.22	VTISADAATPR	1	4	0	0	0	0
605.71	1209.41	2	28.22	VTISADAATPR						
			28.84	VTISCTGSSSNIGAGHNVK	3	4	6	8	0	0
522.23	2084.9	4	28.84	VTISCTGSSSNIGAGHNVK						
			36.85	VTISEDKSKK	2	4	8	0	0	0
446.21	1335.6	3	36.85	VTISEDKSKK						
			27.83	VTNEPPK	1	2	0	0	0	0
446.2	890.38	2	27.83	VTNEPPK						
			26.62	VTPPK	1	2	0	0	0	0
634.7	633.69	1	26.62	VTPPK						
			25.39	VTQLDLDGPK	1	2	0	0	0	0
403.19	1206.56	3	25.39	VTQLDLDGPK						
			25.55	VTSVK	1	2	0	0	0	0
626.29	625.28	1	25.55	VTSVK						
			26.9	VVVSPTK	1	4	0	0	0	0
412.18	822.34	2	26.9	VVVSPTK						
			42.6	VVVSPTKK	1	4	0	0	0	0
476.23	950.45	2	42.6	VVVSPTKK						
			25.54	VYSLPSR	1	6	0	0	0	0
458.21	914.4	2	25.54	VYSLPSR						
			68.97	WDGSEEDEDNSK	1	4	0	0	0	0
794.75	1587.48	2	68.97	WDGSEEDEDNSK						
			27.71	WDGSEEDEDNSKK	1	4	0	0	0	0
573.2	1716.57	3	27.71	WDGSEEDEDNSKK						
			26.02	WHSEQRLLR	1	3	0	0	0	0
			26.45	WRPHSPDGPR	1	5	0	0	0	0
438.5	1312.49	3	26.45	WRPHSPDGPR						
438.2	1311.57	3	26.05	WRPHSPDGPR						
			50.14	WTKPSSFSDSER	1	8	0	0	0	0
517.22	1548.63	3	50.14	WTKPSSFSDSER						
			32.36	YDERPGPSPLPHR	1	8	0	0	0	0
411.69	1642.72	4	32.36	YDERPGPSPLPHR						
			26.78	YEPQSPGYEPR	1	5	0	0	0	0
722.73	1443.44	2	26.78	YEPQSPGYEPR						
			46.21	YFDSGDYNMAK	1	4	0	0	0	0
716.71	1431.41	2	46.21	YFDSGDYNMAK						
			43.03	YGSPPQR	1	3	0	0	0	0
449.69	897.37	2	43.03	YGSPPQR						
			26.35	YHGHSMSDPGVSYR	1	7	0	0	0	0
567.55	1699.62	3	26.35	YHGHSMSDPGVSYR						
			31.6	YLSFTPPEK	1	3	0	0	0	0
595.21	1188.4	2	31.6	YLSFTPPEK						
595.23	1188.45	2	27.37	YLSFTPPEK						
			38.66	YRSPYSGPK	1	3	0	0	0	0
574.68	1147.35	2	38.66	YRSPYSGPK						
574.71	1147.41	2	25.48	YRSPYSGPK						
			29.27	YSKEFFTK	2	1	2	0	0	0
619.28	1236.54	2	29.27	YSKEFFTK						
			29.85	YSPSQNSPIHHIPSR	2	2	7	0	0	0
631.88	1892.61	3	29.85	YSPSQNSPIHHIPSR						

Table 3: Details of phosphopeptides identified by IMAC using previously described buffers (Fig. 3A)

pep_mz	pep_mr	pep_z	pep_score	pep_sequence	Num Mods	ModPos1	ModPos2	ModPos3	ModPos4	ModPos5
			42.64	AAKLSEGSQPAEEEEDQETPSR	2	5	8	0	0	0
887.37	2659.1	3	42.64	AAKLSEGSQPAEEEEDQETPSR						
			25.41	AASMDSSSKCARSLSQAATKK	4	6	7	13	19	0
825.65	2473.92	3	25.41	AASMDSSSKCARSLSQAATKK						
			45.18	AASPSPQSVR	2	3	5	0	0	0
587.22	1172.42	2	45.18	AASPSPQSVR						
			49.88	AAVLSDSEDEEKASAK	2	5	7	0	0	0
631.93	1892.76	3	49.88	AAVLSDSEDEEKASAK						
			26.31	AETTPSMIPSQSR	3	3	4	6	0	0
419.2	1672.75	4	26.31	AETTPSMIPSQSR						
			25.98	AGDLLEDSPKRPK	1	8	0	0	0	0
521.26	1560.77	3	25.98	AGDLLEDSPKRPK						
			25.06	AGEQQETASR	1	9	0	0	0	0
599.25	1196.49	2	25.06	AGEQQETASR						
			34.17	AGETRFTDTR	1	7	0	0	0	0
638.26	1274.5	2	34.17	AGETRFTDTR						
425.84	1274.5	3	27.17	AGETRFTDTR						
			35.95	AISWTMK	1	3	0	0	0	0
465.7	929.38	2	35.95	AISWTMK						
			28.19	AKLRLQTESEDVTLELERATSAAAALDK	2	7	20	0	0	0
822.56	3286.19	4	28.19	AKLRLQTESEDVTLELERATSAAAALDK						
			36.43	ALSRQLSSGVSEIR	2	3	7	0	0	0
564.25	1689.74	3	36.43	ALSRQLSSGVSEIR						
			30.41	ANSKSEGSPVLPHEPAK	2	3	5	0	0	0
650.61	1948.8	3	30.41	ANSKSEGSPVLPHEPAK						
			39.37	AQSGSDSSPEPKAPAPR	4	3	5	7	8	0
1022.34	2042.66	2	39.37	AQSGSDSSPEPKAPAPR						
1022.34	2042.66	2	39.37	AQSGSDSSPEPKAPAPR						
			39.54	ARESSDSEEEYKK	3	4	5	7	0	0
627.88	1880.63	3	39.54	ARESSDSEEEYKK						
			40.03	ARSVSPPPKR	2	3	5	0	0	0
634.79	1267.56	2	40.03	ARSVSPPPKR						
423.52	1267.54	3	26.06	ARSVSPPPKR						
			47.81	ASAVSELSPR	1	8	0	0	0	0
562.75	1123.49	2	47.81	ASAVSELSPR						
			34.04	ASCTLEK	1	2	0	0	0	0
429.85	857.68	2	34.04	ASCTLEK						
			49.14	ASGQAFELILSPR	1	11	0	0	0	0
748.86	1495.71	2	49.14	ASGQAFELILSPR						
499.58	1495.71	3	37.05	ASGQAFELILSPR						
748.87	1495.72	2	36.91	ASGQAFELILSPR						
			77.11	ASSHSSQTQGGGSVTK	2	3	6	0	0	0
846.82	1691.63	2	77.11	ASSHSSQTQGGGSVTK						
564.88	1691.63	3	39.75	ASSHSSQTQGGGSVTK						
			36.66	ASSLNFLNK	1	2	0	0	0	0
544.25	1086.49	2	36.66	ASSLNFLNK						
			28.79	ATSCTLGSSRPSGWGLPAGPK	4	5	8	9	12	0
788.29	2361.86	3	28.79	ATSCTLGSSRPSGWGLPAGPK						
			25.29	CPSSTSYSKLSSLC	3	5	8	11	0	0
573.25	1716.73	3	25.29	CPSSTSYSKLSSLC						
			37.97	DEKKEESEESDDDMGFGLFD	2	7	10	0	0	0
879.31	2634.91	3	37.97	DEKKEESEESDDDMGFGLFD						
			30.39	DHSPTPSVFNSDEERYR	2	3	11	0	0	0
567.24	2264.92	4	30.39	DHSPTPSVFNSDEERYR						
			56.36	DLFDLNSSEEDDTEGFSER	2	7	8	0	0	0
830.99	2489.96	3	56.36	DLFDLNSSEEDDTEGFSER						
			30.02	DLLESSSDSDEKVPLAK	4	5	6	7	9	0
746.29	2235.85	3	30.02	DLLESSSDSDEKVPLAK						
			25.49	DLSTSPKPSPIPSPVLGR	2	3	13	0	0	0
679.34	2035.01	3	25.49	DLSTSPKPSPIPSPVLGR						
			25.97	DPSTKLSTSSETVSSTAASKSGK	4	8	10	12	16	0
655.28	2617.08	4	25.97	DPSTKLSTSSETVSSTAASKSGK						
			27.38	DRSPIRGSPR	2	3	8	0	0	0
664.77	1327.52	2	27.38	DRSPIRGSPR						
			30.39	DRTPPLLYR	1	3	0	0	0	0
413.54	1237.59	3	30.39	DRTPPLLYR						
			32.41	DSAIPVESDTDDEGAPR	2	2	8	0	0	0
677.94	2030.79	3	32.41	DSAIPVESDTDDEGAPR						
			27.47	DSGNWDTSGSELSEGELEKR	4	7	8	10	13	0
871.97	2612.9	3	27.47	DSGNWDTSGSELSEGELEKR						
			29.87	DSSSSTSTSSSSESRSRSR	6	2	6	12	14	16
834.2	2499.58	3	29.87	DSSSSTSTSSSSESRSRSR						
			44.93	DSYSSSR	1	4	0	0	0	0
455.17	908.32	2	44.93	DSYSSSR						
			27.43	DVTLTREEDFPDPSFMSSSGT	3	5	18	21	0	0
661.28	2641.08	4	27.43	DVTLTREEDFPDPSFMSSSGT						
			37.92	DWEDDSDEDMSNFDR	1	6	0	0	0	0
1041.39	2080.76	2	37.92	DWEDDSDEDMSNFDR						
694.59	2080.74	3	34.36	DWEDDSDEDMSNFDR						
694.33	2079.98	3	32.01	DWEDDSDEDMSNFDR						
			28.98	DYDDMSPR	1	6	0	0	0	0

567.69	1133.37	2	28.98	DYDDMSPR						
			32.64	EAARSPDKPGGSPSASR	2	5	12	0	0	0
624.58	1870.73	3	32.64	EAARSPDKPGGSPSASR						
			42.7	EAEDSDSDDNIKR	2	5	7	0	0	0
584.55	1750.64	3	42.7	EAEDSDSDDNIKR						
			28.08	EAPFSMWGLPK	1	5	0	0	0	0
686.27	1370.53	2	28.08	EAPFSMWGLPK						
			30.02	EDDITIGSGPPSFFYSESFK	4	5	12	16	18	0
654.06	2612.2	4	30.02	EDDITIGSGPPSFFYSESFK						
			27.66	EEEVSPARDVVEVTISESQEK	1	18	0	0	0	0
851.34	2551.01	3	27.66	EEEVSPARDVVEVTISESQEK						
			25.12	EFSLRLESAAPSQTSVYFCASSPGDR	3	3	8	21	0	0
1034.36	3100.04	3	25.12	EFSLRLESAAPSQTSVYFCASSPGDR						
			26.18	EGALKLAATGREDQGIETDDEK	2	9	18	0	0	0
873.66	2617.97	3	26.18	EGALKLAATGREDQGIETDDEK						
			27.19	EGGSGANVLT	1	10	0	0	0	0
506.27	1010.52	2	27.19	EGGSGANVLT						
			34.27	EGQSLDEEPR	1	4	0	0	0	0
654.9	1307.79	2	34.27	EGQSLDEEPR						
			30.05	EITKGLNLPTSITSAAFTLSSGRST	1	25	0	0	0	0
665.77	2659.04	4	30.05	EITKGLNLPTSITSAAFTLSSGRST						
			32.19	EKGPTTGEGALDLSDVHSPPKSPEGK	2	5	22	0	0	0
720.31	2877.23	4	32.19	EKGPTTGEGALDLSDVHSPPKSPEGK						
			25.88	EKPYKYPESVKSFNHFTSLGHQK	4	4	9	17	18	0
779.28	3113.11	4	25.88	EKPYKYPESVKSFNHFTSLGHQK						
			28.93	EKQSSEEEEKETR	2	4	5	0	0	0
933.87	1865.72	2	28.93	EKQSSEEEEKETR						
			35.17	ELGSSVALYSRK	4	4	5	9	10	0
829.73	1657.44	2	35.17	ELGSSVALYSRK						
			33.69	ELSNSPLRENSFGSPLEFR	2	3	14	0	0	0
799.02	2394.04	3	33.69	ELSNSPLRENSFGSPLEFR						
799.02	2394.04	3	33.69	ELSNSPLRENSFGSPLEFR						
			25.06	ELVSSGPEEAAGSKSSSKK	2	4	15	0	0	0
698.64	2092.91	3	25.06	ELVSSGPEEAAGSKSSSKK						
			26.6	EPQTTVIHNPDGNK	2	4	5	0	0	0
876.39	1750.77	2	26.6	EPQTTVIHNPDGNK						
			28.21	EPRTHLAYALDLGSSPVPSSTAPK	1	21	0	0	0	0
872.98	2615.93	3	28.21	EPRTHLAYALDLGSSPVPSSTAPK						
			38.75	ERSPALKSPLQSVVVR	2	3	8	0	0	0
651.99	1952.94	3	38.75	ERSPALKSPLQSVVVR						
			39.24	ERSPSPPTIQSK	2	3	5	0	0	0
505.54	1513.6	3	39.24	ERSPSPPTIQSK						
			28.26	ESPCQQNADCINIPGSYRCKCTRGYK	2	2	16	0	0	0
1045.98	3134.93	3	28.26	ESPCQQNADCINIPGSYRCKCTRGYK						
			25.22	ESSGNSTNCQNASSSTSGGSGK	7	2	6	13	14	15
878.68	2633.01	3	25.22	ESSGNSTNCQNASSSTSGGSGK						
			25.36	ESVKGSPKESMEASPEAMVKASPK	3	6	10	22	0	0
938.43	2812.28	3	25.36	ESVKGSPKESMEASPEAMVKASPK						
			29.45	ETGYWNVTVYGRK	2	2	8	0	0	0
880.84	1759.67	2	29.45	ETGYWNVTVYGRK						
			32.96	ETSPMPR	1	3	0	0	0	0
925.76	924.75	1	32.96	ETSPMPR						
			26.05	ETSTSEETSLATEANTVLSK	4	2	4	16	19	0
829.73	2486.16	3	26.05	ETSTSEETSLATEANTVLSK						
501.92	1502.73	3	34.11	EVDEQMLNVQNK						
751.87	1501.72	2	33.09	EVDEQMLNVQNK						
			30.22	EVELVSE	1	6	0	0	0	0
470.71	939.41	2	30.22	EVELVSE						
			35.94	EVPHSSPPYYEFLWGPR	1	5	0	0	0	0
728.28	2181.82	3	35.94	EVPHSSPPYYEFLWGPR						
			25.69	EVRSSLESTSTKGYSGGSR	4	8	9	10	15	0
783.63	2347.88	3	25.69	EVRSSLESTSTKGYSGGSR						
			39.2	FDHESSPGTDEDKSG	3	5	6	9	0	0
644.53	1930.57	3	39.2	FDHESSPGTDEDKSG						
			35.54	FFTTPSK	1	3	0	0	0	0
461.19	920.37	2	35.54	FFTTPSK						
			37.78	FLRLSQSP	2	5	7	0	0	0
561.24	1120.46	2	37.78	FLRLSQSP						
			27.6	FQSKYEPRSHMMDVQGSTQDSAIK	2	17	18	0	0	0
996.47	2986.38	3	27.6	FQSKYEPRSHMMDVQGSTQDSAIK						
			33.29	FRRSETPPHWR	2	4	6	0	0	0
415.18	1656.67	4	33.29	FRRSETPPHWR						
			29.19	FRTPSFLKK	1	5	0	0	0	0
406.55	1216.62	3	29.19	FRTPSFLKK						
			25.41	FSDAVSAATDEERLIK	3	2	6	9	0	0
516.32	2061.26	4	25.41	FSDAVSAATDEERLIK						
			32.38	FSGSGARTDFTLNISR	3	4	8	11	0	0
499.7	1994.78	4	32.38	FSGSGARTDFTLNISR						
			41.64	FSKEEPVSSGPEEAVGK	2	8	9	0	0	0
669.62	2005.82	3	41.64	FSKEEPVSSGPEEAVGK						
669.27	2004.78	3	30.56	FSKEEPVSSGPEEAVGK						
			32.86	FVAFSGEGQSLR	1	10	0	0	0	0
469.21	1404.62	3	32.86	FVAFSGEGQSLR						
			42.02	GEFSASPMLK	1	6	0	0	0	0
587.74	1173.47	2	42.02	GEFSASPMLK						
587.74	1173.47	2	42.02	GEFSASPMLK						
			34.25	GFGSEEGSR	1	4	0	0	0	0
524.2	1046.38	2	34.25	GFGSEEGSR						
			63.29	GGSPDLWK	1	3	0	0	0	0

484.2	966.39	2	63.29	GGSPDLWK						
			37.28	GLLYDSDEEDEERPAR	1	6	0	0	0	0
695.97	2084.88	3	37.28	GLLYDSDEEDEERPAR						
			54.61	GLMAGGRPEGQYSEDEDTDTDEYKEAK	2	13	18	0	0	0
823.83	3291.3	4	54.61	GLMAGGRPEGQYSEDEDTDTDEYKEAK						
			30.84	GLPPSMER	1	5	0	0	0	0
497.71	993.4	2	30.84	GLPPSMER						
497.71	993.4	2	27.12	GLPPSMER						
			26.1	GLRVTFEVWGQGTLVTVSS	3	5	16	18	0	0
768.91	2303.72	3	26.1	GLRVTFEVWGQGTLVTVSS						
			92.43	GLSASLPDLDSENWIEVK	1	3	0	0	0	0
708.34	2121.99	3	92.43	GLSASLPDLDSENWIEVK						
			46.22	GMGSLDAMDK	1	4	0	0	0	0
573.71	1145.41	2	46.22	GMGSLDAMDK						
			28.14	GPPAQAMDVWGQGTTVIVSSAPTK	4	14	19	20	23	0
687.28	2745.09	4	28.14	GPPAQAMDVWGQGTTVIVSSAPTK						
			46.97	GPPDFSSDEEREPTPVLGSGAAAAGR	2	6	14	0	0	0
704.29	2813.15	4	46.97	GPPDFSSDEEREPTPVLGSGAAAAGR						
			33.52	GPPDFSSDEEREPTPVLGSGAAAAGR	3	6	7	14	0	0
965.38	2893.12	3	33.52	GPPDFSSDEEREPTPVLGSGAAAAGR						
			38.01	GPPSPPAPVMHSPSR	2	4	12	0	0	0
844.33	1686.64	2	38.01	GPPSPPAPVMHSPSR						
563.21	1686.62	3	29.64	GPPSPPAPVMHSPSR						
			37.55	GPPSPPAPVMHSPSRK	2	4	12	0	0	0
605.91	1814.72	3	37.55	GPPSPPAPVMHSPSRK						
			29.81	GPYNAVPHPVEK	1	3	0	0	0	0
472.75	1415.23	3	29.81	GPYNAVPHPVEK						
			44.78	GQSQTSPDHRSDTSSPEVR	4	6	11	14	15	0
612.71	2446.8	4	44.78	GQSQTSPDHRSDTSSPEVR						
816.26	2445.77	3	30.12	GQSQTSPDHRSDTSSPEVR						
			28.49	GRRSSDTEEESR	3	4	5	7	0	0
573.52	1717.54	3	28.49	GRRSSDTEEESR						
			57.93	GSPHYFSPFRPY	1	2	0	0	0	0
774.82	1547.62	2	57.93	GSPHYFSPFRPY						
			52.87	GSPHYFSPFRPY	2	2	7	0	0	0
543.54	1627.59	3	52.87	GSPHYFSPFRPY						
516.88	1547.62	3	51.25	GSPHYFSPFRPY						
516.89	1547.63	3	37.1	GSPHYFSPFRPY						
814.8	1627.58	2	29.5	GSPHYFSPFRPY						
			34.3	GSSRQGSPGSVSK	2	2	7	0	0	0
704.28	1406.54	2	34.3	GSSRQGSPGSVSK						
413.19	824.36	2	30.57	GTGASGSFK						
413.19	824.36	2	30.57	GTGASGSFK						
			46.04	GTGQSDDSDIWDDTALIK	2	5	8	0	0	0
727.63	2179.87	3	46.04	GTGQSDDSDIWDDTALIK						
1090.9	2179.79	2	32.9	GTGQSDDSDIWDDTALIK						
			25.74	GVISYLSLTCSSPFAGESDR	4	4	11	12	18	0
817.32	2448.93	3	25.74	GVISYLSLTCSSPFAGESDR						
			25.08	GVSLSSR	1	3	0	0	0	0
400.19	798.37	2	25.08	GVSLSSR						
			44.31	HASPILPITEFSDIPR	1	3	0	0	0	0
638.98	1913.91	3	44.31	HASPILPITEFSDIPR						
639.3	1914.88	3	30.61	HASPILPITEFSDIPR						
			36.42	HASSSPESPKPAPAPGSHR	4	3	4	5	8	0
562.19	2244.74	4	36.42	HASSSPESPKPAPAPGSHR						
748.92	2243.75	3	34.9	HASSSPESPKPAPAPGSHR						
			55.29	HDSPDPSPPR	2	3	7	0	0	0
653.72	1305.43	2	55.29	HDSPDPSPPR						
			27.93	HDTPDPSPLR	2	3	7	0	0	0
668.75	1335.48	2	27.93	HDTPDPSPLR						
			25.04	HGSFHEDEDPIGSPR	2	3	13	0	0	0
637.26	1908.75	3	25.04	HGSFHEDEDPIGSPR						
			26.84	HGTPDPSPR	2	3	7	0	0	0
576.2	1150.38	2	26.84	HGTPDPSPR						
			37.16	HKSDSPESDAEREK	3	3	5	8	0	0
646.89	1937.65	3	37.16	HKSDSPESDAEREK						
			52.1	HRPSPPATPPPK	2	4	8	0	0	0
485.87	1454.57	3	52.1	HRPSPPATPPPK						
728.31	1454.6	2	27.69	HRPSPPATPPPK						
			53.97	IGEGTYGVVYK	1	6	0	0	0	0
647.28	1292.55	2	53.97	IGEGTYGVVYK						
			47.05	IGEGTYGVVYK	2	5	6	0	0	0
687.28	1372.55	2	47.05	IGEGTYGVVYK						
458.18	1371.52	3	37.51	IGEGTYGVVYK						
			27.09	IGEGTYGVVYKGR	2	5	6	0	0	0
529.56	1585.66	3	27.09	IGEGTYGVVYKGR						
			40.18	IGELGAPEVWGLSPK	1	13	0	0	0	0
558.94	1673.81	3	40.18	IGELGAPEVWGLSPK						
			27.71	ILSDTSDEEDASVTVGTGEK	5	3	6	12	14	17
851.35	2551.03	3	27.71	ILSDTSDEEDASVTVGTGEK						
			42.89	INPDNYGMDLNSDDSTDDEAHPR	3	12	15	16	0	0
981.68	2942.03	3	42.89	INPDNYGMDLNSDDSTDDEAHPR						
			31.72	INSSGESGDESDEFLQSR	4	3	4	7	11	0
787.8	2360.38	3	31.72	INSSGESGDESDEFLQSR						
527.27	1578.78	3	27.95	IQDKEGIPPDQQR						
			34.7	IQEQESSGEEDSDLSPEER	2	6	7	0	0	0
817.2	2448.58	3	34.7	IQEQESSGEEDSDLSPEER						
			29.01	IRHDSSDTSPPR	3	5	8	9	0	0
550.52	1648.55	3	29.01	IRHDSSDTSPPR						

			35.61	IRTPSGEFLER	1	5	0	0	0	0
476.23	1425.67	3	35.61	IRTPSGEFLER						
			29.3	ISEGLPTPTKMTPR	2	7	9	0	0	0
572.59	1714.73	3	29.3	ISEGLPTPTKMTPR						
			26.56	ISGSYKDDLFEVLLFLPSSSPK	2	4	20	0	0	0
665.25	2656.99	4	26.56	ISGSYKDDLFEVLLFLPSSSPK						
			26.71	ITVPDTSVQGSSPGLSGR	6	2	6	7	11	12
567.22	2264.84	4	26.71	ITVPDTSVQGSSPGLSGR						
			39.9	KAEDSDSEPEPEDNVR	2	5	7	0	0	0
696.94	2087.81	3	39.9	KAEDSDSEPEPEDNVR						
1044.9	2087.79	2	28.97	KAEDSDSEPEPEDNVR						
			25.11	KAEGAALATPAPFPCCSPHLVLSLGRRAR	1	17	0	0	0	0
775.31	3097.21	4	25.11	KAEGAALATPAPFPCCSPHLVLSLGRRAR						
			45.71	KASGSENEGDYNPGRK	2	3	5	0	0	0
642.24	1923.7	3	45.71	KASGSENEGDYNPGRK						
			38.52	KDEKKEESEESDDDMGFGLFD	2	8	11	0	0	0
922.01	2763.02	3	38.52	KDEKKEESEESDDDMGFGLFD						
691.75	2762.99	4	37.3	KDEKKEESEESDDDMGFGLFD						
922.02	2763.03	3	32.31	KDEKKEESEESDDDMGFGLFD						
922.03	2763.06	3	29.55	KDEKKEESEESDDDMGFGLFD						
			48.4	KEESEESDDDMGFGLFD	2	4	7	0	0	0
745.93	2234.76	3	48.4	KEESEESDDDMGFGLFD						
			26.47	KESESEDSSDDEPLIK	4	3	5	8	9	0
747.26	2238.76	3	26.47	KESESEDSSDDEPLIK						
			42.99	KESESEDSSDDEPLIKK	4	3	5	8	9	0
592.96	2367.82	4	42.99	KESESEDSSDDEPLIKK						
789.95	2366.84	3	41.09	KESESEDSSDDEPLIKK						
789.96	2366.84	3	31.1	KESESEDSSDDEPLIKK						
592.97	2367.85	4	29.33	KESESEDSSDDEPLIKK						
			69.23	KETESEAEDNLDDLEK	2	3	5	0	0	0
717.63	2149.88	3	69.23	KETESEAEDNLDDLEK						
1075.94	2149.86	2	47.31	KETESEAEDNLDDLEK						
			26.59	KGSFEGTSQNLPK	1	7	0	0	0	0
501.22	1500.63	3	26.59	KGSFEGTSQNLPK						
			37.06	KHSPSPPPPTPTESR	2	3	5	0	0	0
601.58	1801.71	3	37.06	KHSPSPPPPTPTESR						
901.86	1801.71	2	27.63	KHSPSPPPPTPTESR						
			36.35	KIFSGKAK	1	4	0	0	0	0
487.22	972.43	2	36.35	KIFSGKAK						
			42.16	KKSPNELVDDLFK	1	3	0	0	0	0
556.95	1667.83	3	42.16	KKSPNELVDDLFK						
			67.04	KLEKEEEEGISQESSEEEQ	3	11	14	15	0	0
1309	2615.99	2	67.04	KLEKEEEEGISQESSEEEQ						
			47.31	KLEKEEEEGISQESSEEEQ	2	14	15	0	0	0
846.35	2536.02	3	47.31	KLEKEEEEGISQESSEEEQ						
1309	2615.98	2	43.92	KLEKEEEEGISQESSEEEQ						
873	2615.99	3	39.54	KLEKEEEEGISQESSEEEQ						
872.98	2615.93	3	38.63	KLEKEEEEGISQESSEEEQ						
1309.01	2616	2	36.23	KLEKEEEEGISQESSEEEQ						
873.27	2616.79	3	36.09	KLEKEEEEGISQESSEEEQ						
1269.02	2536.03	2	34.57	KLEKEEEEGISQESSEEEQ						
873.02	2616.03	3	33.3	KLEKEEEEGISQESSEEEQ						
635.27	2537.05	4	30.41	KLEKEEEEGISQESSEEEQ						
1269.02	2536.02	2	26.73	KLEKEEEEGISQESSEEEQ						
			25.88	KLLAATVLLLTICSLEGALVRR	2	6	11	0	0	0
636.28	2541.08	4	25.88	KLLAATVLLLTICSLEGALVRR						
			57.31	KLSVPTSDEEDEVPAPKPR	3	3	6	7	0	0
806.69	2417.03	3	57.31	KLSVPTSDEEDEVPAPKPR						
605.51	2418.03	4	49.91	KLSVPTSDEEDEVPAPKPR						
400.24	798.46	2	61.58	KPAAAAGAK						
			50.39	KPIETGSPK	1	7	0	0	0	0
532.76	1063.51	2	50.39	KPIETGSPK						
			39.01	KPPAPPSPVQSQSPSTNWSPAVPVKK	3	11	15	19	0	0
742.33	2965.27	4	39.01	KPPAPPSPVQSQSPSTNWSPAVPVKK						
			25.17	KPSDSTDLASPKTMGNR	4	3	5	6	10	0
723.31	2166.92	3	25.17	KPSDSTDLASPKTMGNR						
			31.69	KPSGSPDLWKLSPDQR	2	3	12	0	0	0
671.64	2011.88	3	31.69	KPSGSPDLWKLSPDQR						
			59.53	KRESESESDETPPAAPQLIK	3	4	6	8	0	0
846.02	2535.05	3	59.53	KRESESESDETPPAAPQLIK						
634.78	2535.07	4	49.94	KRESESESDETPPAAPQLIK						
			44.05	KRESESESDETPPAAPQLIK	2	4	6	0	0	0
819.36	2455.06	3	44.05	KRESESESDETPPAAPQLIK						
615.03	2456.08	4	38.06	KRESESESDETPPAAPQLIK						
			52.03	KRESESESDETPPAAPQLIKK	2	6	11	0	0	0
646.79	2583.15	4	52.03	KRESESESDETPPAAPQLIKK						
			39.33	KRETDDEGEDD	1	4	0	0	0	0
750.79	1499.56	2	39.33	KRETDDEGEDD						
500.86	1499.56	3	35.95	KRETDDEGEDD						
			48.06	KRSPSPSPTPEAK	2	3	5	0	0	0
523.88	1568.63	3	48.06	KRSPSPSPTPEAK						
			25.53	KRSPSPSPTPEAK	3	3	5	7	0	0
550.54	1648.61	3	25.53	KRSPSPSPTPEAK						
			59.96	KSLDSDESEDEEDDYQQK	2	5	8	0	0	0
820.64	2458.91	3	59.96	KSLDSDESEDEEDDYQQK						
1230.47	2458.92	2	53.9	KSLDSDESEDEEDDYQQK						
			52.46	KSLDSDESEDEEDDYQQKR	2	2	8	0	0	0
872.68	2615.03	3	52.46	KSLDSDESEDEEDDYQQKR						
654.77	2615.04	4	34.04	KSLDSDESEDEEDDYQQKR						

			27.01	KSRISEEDDRSELDDNNTMEEVK	2	2	11	0	0	0
1013.39	3037.14	3	27.01	KSRISEEDDRSELDDNNTMEEVK						
			28.46	KSRVSVSPGR	2	5	7	0	0	0
623.77	1245.52	2	28.46	KSRVSVSPGR						
416.17	1245.49	3	27.78	KSRVSVSPGR						
			63.69	KTSSDDESEEDEDDLLQR	3	3	4	8	0	0
830.98	2489.92	3	63.69	KTSSDDESEEDEDDLLQR						
			51.9	KVVVSPTKK	1	5	0	0	0	0
540.29	1078.56	2	51.9	KVVVSPTKK						
429.72	857.42	2	41.77	LAEQAER						
429.72	857.42	2	41.77	LAEQAER						
			25.19	LAKQAEEPRGSSLSSESSPVSSPATNHSSPASTPK	6	11	12	14	25	29
1011.92	4043.66	4	25.19	LAKQAEEPRGSSLSSESSPVSSPATNHSSPASTPK						
			35.28	LASPMKPVPGTPPSSK	2	3	11	0	0	0
589.93	1766.76	3	35.28	LASPMKPVPGTPPSSK						
			26.92	LDQPVSAPPSPR	2	6	10	0	0	0
484.53	1450.57	3	26.92	LDQPVSAPPSPR						
			26.43	LEDSAVYLCASS	3	4	11	12	0	0
			67.32	LEDSEVRSVASNQSEMEFSSLQDMPK	3	4	11	14	0	0
1094.45	3280.34	3	67.32	LEDSEVRSVASNQSEMEFSSLQDMPK						
			71.23	LGSFGSITR	1	3	0	0	0	0
516.23	1030.45	2	71.23	LGSFGSITR						
			38.04	LGSPKPER	1	3	0	0	0	0
496.22	990.43	2	38.04	LGSPKPER						
			32.02	LGVSVSPSR	2	4	6	0	0	0
538.22	1074.42	2	32.02	LGVSVSPSR						
			27.94	LIHHPDVSVQSVADQPK	2	8	11	0	0	0
691.28	2070.83	3	27.94	LIHHPDVSVQSVADQPK						
			25.99	LILAGNIIHSLMKSILWSKASGRGR	2	10	18	0	0	0
724.77	2895.06	4	25.99	LILAGNIIHSLMKSILWSKASGRGR						
			33.23	LKDLFDYSPPLHK	1	8	0	0	0	0
565.61	1693.81	3	33.23	LKDLFDYSPPLHK						
			43.2	LKLSPSPSSR	2	4	6	0	0	0
415.84	1244.5	3	43.2	LKLSPSPSSR						
623.25	1244.5	2	31.1	LKLSPSPSSR						
			28.12	LLDFGSLSNLQVTQPTVGMNFK	1	6	0	0	0	0
630.27	2517.07	4	28.12	LLDFGSLSNLQVTQPTVGMNFK						
			54.58	LLEDSEESSEETVSR	2	5	8	0	0	0
656.61	1966.8	3	54.58	LLEDSEESSEETVSR						
			27.63	LLEDSEESSEETVSR	3	5	8	9	0	0
1024.36	2046.71	2	27.63	LLEDSEESSEETVSR						
491.3	980.59	2	53.57	LLLPGELAK						
			32.28	LNQPGTPTR	1	8	0	0	0	0
539.24	1076.46	2	32.28	LNQPGTPTR						
			25.96	LPASPSGSEGLSSVSSSPTSSPK	5	4	6	17	20	21
644.2	2572.79	4	25.96	LPASPSGSEGLSSVSSSPTSSPK						
			25.98	LQAGEYVSLGK	1	6	0	0	0	0
636.81	1271.61	2	25.98	LQAGEYVSLGK						
			37.54	LQDSSSEEEDVTEETDHR	3	4	5	6	0	0
824.64	2470.89	3	37.54	LQDSSSEEEDVTEETDHR						
			36.74	LQTPNTFPK	2	3	6	0	0	0
610.25	1218.49	2	36.74	LQTPNTFPK						
			36.17	LRLSPSPTSQR	2	4	6	0	0	0
708.29	1414.57	2	36.17	LRLSPSPTSQR						
472.53	1414.57	3	25.72	LRLSPSPTSQR						
			26.43	LRPCPTPTSSPSSSCWNT	3	13	14	18	0	0
725.61	2173.81	3	26.43	LRPCPTPTSSPSSSCWNT						
440.23	878.44	2	35.84	LSLLSPR						
			35.84	LSLSPLR	1	4	0	0	0	0
			31.34	LSPASGAVPSRRLVKSGINTQTR	1	22	0	0	0	0
623.24	2488.93	4	31.34	LSPASGAVPSRRLVKSGINTQTR						
			36.84	LSSGFDDIDLPSAVK	1	3	0	0	0	0
567.27	1698.8	3	36.84	LSSGFDDIDLPSAVK						
850.39	1698.76	2	36.11	LSSGFDDIDLPSAVK						
			45.79	LSSLRASTSK	2	3	7	0	0	0
612.26	1222.5	2	45.79	LSSLRASTSK						
			35.88	LSSLRASTSKSESSQK	2	7	9	0	0	0
942.39	1882.77	2	35.88	LSSLRASTSKSESSQK						
628.6	1882.77	3	32.85	LSSLRASTSKSESSQK						
471.7	1882.76	4	25.79	LSSLRASTSKSESSQK						
			28.33	LSSSFSSR	1	6	0	0	0	0
482.69	963.36	2	28.33	LSSSFSSR						
			25.42	LSVEHCGTQPELPFSPR	1	2	0	0	0	0
673.28	2016.82	3	25.42	LSVEHCGTQPELPFSPR						
			28.98	LTQASGNYATVISHNPETKK	3	2	10	13	0	0
809.65	2425.93	3	28.98	LTQASGNYATVISHNPETKK						
			27.38	LTSVVGTILYSCPEVLK	2	3	11	0	0	0
670.29	2007.86	3	27.38	LTSVVGTILYSCPEVLK						
			39.93	LVEDERSDREETESSEGEEAAAGGGAK	4	7	12	14	15	0
1094.74	3281.2	3	39.93	LVEDERSDREETESSEGEEAAAGGGAK						
821.56	3282.2	4	28.31	LVEDERSDREETESSEGEEAAAGGGAK						
			26.34	LYIAYQFLLAEDTKVRSAEELK	2	2	13	0	0	0
708.29	2829.12	4	26.34	LYIAYQFLLAEDTKVRSAEELK						
			44.87	MEESFSSK	1	4	0	0	0	0
533.7	1065.39	2	44.87	MEESFSSK						
			28.93	MESQEPTESSQNGKQYIISEELISEGK	3	3	9	24	0	0
845.36	3377.41	4	28.93	MESQEPTESSQNGKQYIISEELISEGK						
			45.99	MGLSMER	1	4	0	0	0	0
466.19	930.36	2	45.99	MGLSMER						

			26.21	MGPSSSPIPSPSPSPTDPK	4	5	6	10	12	0
738.95	2213.83	3	26.21	MGPSSSPIPSPSPSPTDPK						
			32.61	MGRSRSPATAK	2	4	6	0	0	0
668.29	1334.56	2	32.61	MGRSRSPATAK						
668.29	1334.56	2	32.61	MGRSRSPATAK						
			53.21	MPQDGSDDEDEEWPTLEK	1	6	0	0	0	0
776.31	2325.92	3	53.21	MPQDGSDDEDEEWPTLEK						
			27.99	MVAVSSELLGTLPR	3	5	6	11	0	0
581.22	1740.64	3	27.99	MVAVSSELLGTLPR						
			29.82	MYSYPAR	1	3	0	0	0	0
491.18	980.35	2	29.82	MYSYPAR						
			28.69	NADYFSNYVTEDFTTYINRK	3	6	14	16	0	0
690.31	2757.2	4	28.69	NADYFSNYVTEDFTTYINRK						
			35.21	NDSWGSFDLR	1	3	0	0	0	0
659.77	1317.52	2	35.21	NDSWGSFDLR						
			41.34	NESEDNKFSDDSDDDFVQPR	2	3	9	0	0	0
882.68	2645.02	3	41.34	NESEDNKFSDDSDDDFVQPR						
			26.58	NGTSDPFVRVRYK	1	4	0	0	0	0
412.19	1644.72	4	26.58	NGTSDPFVRVRYK						
			31.94	NKPGPNIESGNEDDDASFK	1	9	0	0	0	0
733.31	2196.92	3	31.94	NKPGPNIESGNEDDDASFK						
			31.43	NQGGYGGSSSSSSYGSGR	1	8	0	0	0	0
894.82	1787.62	2	31.43	NQGGYGGSSSSSSYGSGR						
			34.74	NVPQEESLEDSDVDADFK	1	11	0	0	0	0
743.41	2227.22	3	34.74	NVPQEESLEDSDVDADFK						
			25.18	NVSESPNRKNEK	2	3	5	0	0	0
535.21	1602.61	3	25.18	NVSESPNRKNEK						
			38.87	NYQQNYQNSESGEKNEGSESAPEGQAQQR	2	9	11	0	0	0
876.34	3501.33	4	38.87	NYQQNYQNSESGEKNEGSESAPEGQAQQR						
			25.6	QENPWIVGSILLSSERK	1	9	0	0	0	0
693.27	2076.79	3	25.6	QENPWIVGSILLSSERK						
			30.81	QESSRTSSRR	3	3	4	6	0	0
730.73	1459.45	2	30.81	QESSRTSSRR						
			25.37	QGGALPHPGSARGWGTPFLSK	1	16	0	0	0	0
739.28	2214.81	3	25.37	QGGALPHPGSARGWGTPFLSK						
			36.29	QHYQKETESAPGSPR	2	9	13	0	0	0
639.57	1915.7	3	36.29	QHYQKETESAPGSPR						
			50.99	QLSSGVSEIR	1	3	0	0	0	0
592.27	1182.52	2	50.99	QLSSGVSEIR						
			31.31	QMSFDLTK	1	3	0	0	0	0
539.23	1076.44	2	31.31	QMSFDLTK						
			34.58	QPTPPFFGR	1	3	0	0	0	0
570.75	1139.49	2	34.58	QPTPPFFGR						
			28.28	QREESETRSESSDFEVVPK	3	9	11	12	0	0
645.26	2577.01	4	28.28	QREESETRSESSDFEVVPK						
			26.63	QREESETRSESSDFEVVPK	4	5	7	9	11	0
886.67	2657	3	26.63	QREESETRSESSDFEVVPK						
			31.89	QRGSETGSETHESDLAPSDKEAPTPK	3	4	6	8	0	0
774.06	3092.22	4	31.89	QRGSETGSETHESDLAPSDKEAPTPK						
			57.12	QSQQPMKPISPVKDPVSPASQK	2	2	17	0	0	0
642.29	2565.15	4	57.12	QSQQPMKPISPVKDPVSPASQK						
			25.88	RAQKPSHMR	1	6	0	0	0	0
602.71	1203.41	2	25.88	RAQKPSHMR						
			44.95	RASGQAFELILSPR	1	3	0	0	0	0
551.61	1651.82	3	44.95	RASGQAFELILSPR						
			35.57	RASGQAFELILSPR	2	3	12	0	0	0
578.27	1731.8	3	35.57	RASGQAFELILSPR						
578.26	1731.77	3	25.28	RASGQAFELILSPR						
			28.32	RASPSPPPKR	2	3	5	0	0	0
633.79	1265.57	2	28.32	RASPSPPPKR						
			25.42	RCFVESLSSVETLKPTSWAK	4	6	8	12	16	0
877.69	2630.06	3	25.42	RCFVESLSSVETLKPTSWAK						
			26.75	REDALVLTKQGLVSKSSPK	3	14	16	17	0	0
780.36	2338.05	3	26.75	REDALVLTKQGLVSKSSPK						
			40.27	RESPSPAPKPR	2	3	5	0	0	0
470.53	1408.56	3	40.27	RESPSPAPKPR						
			43.67	RGDSESEEDEQDSEEVR	2	4	6	0	0	0
765.95	2294.83	3	43.67	RGDSESEEDEQDSEEVR						
			26.34	RGGSGYHSRSPAR	3	4	8	10	0	0
411.18	1640.69	4	26.34	RGGSGYHSRSPAR						
			25.23	RGTGQSDDSDIWDDTALIK	2	6	9	0	0	0
779.65	2335.92	3	25.23	RGTGQSDDSDIWDDTALIK						
			34.47	RIDFIPVSPAPSPTR	2	8	12	0	0	0
614.63	1840.86	3	34.47	RIDFIPVSPAPSPTR						
			49.82	RKPSTSDDSDSNFEK	4	4	5	6	9	0
701.56	2101.67	3	49.82	RKPSTSDDSDSNFEK						
			61.86	RKSLSDSESDDSK	3	3	5	7	0	0
588.54	1762.61	3	61.86	RKSLSDSESDDSK						
			38.31	RKSLSDSESDDSK	2	3	5	0	0	0
561.89	1682.64	3	38.31	RKSLSDSESDDSK						
			56.75	RKTSSDDESEEDEDDLLQR	1	4	0	0	0	0
829.99	2486.94	3	56.75	RKTSSDDESEEDEDDLLQR						
			37.01	RLSGSSEDEEDSGKGEPTAK	3	3	5	6	0	0
605.25	2416.98	4	37.01	RLSGSSEDEEDSGKGEPTAK						
			40.08	RLSPSASPPR	3	3	5	7	0	0
441.17	1320.49	3	40.08	RLSPSASPPR						
			26.59	RLSPSASPPR	2	3	5	0	0	0
621.25	1240.48	2	26.59	RLSPSASPPR						
			29.1	RLSSLRASTSK	2	3	4	0	0	0

460.53	1378.56	3	29.1	RLSSLRASTSK						
			38.43	RLSSLRASTSKSESSQK	2	4	9	0	0	0
510.98	2039.89	4	38.43	RLSSLRASTSKSESSQK						
			33.57	RLSSLRASTSKSESSQK	3	3	4	8	0	0
707.28	2118.83	3	33.57	RLSSLRASTSKSESSQK						
			25.74	RPAEATSSPTSPERPR	2	6	11	0	0	0
647.6	1939.78	3	25.74	RPAEATSSPTSPERPR						
			25.56	RPPSPDVIVLSDNEQPSSPR	3	4	11	17	0	0
622.27	2485.05	4	25.56	RPPSPDVIVLSDNEQPSSPR						
			38.55	RRGSSGSVDETLFALPAASEPVIR	2	5	7	0	0	0
683.83	2731.29	4	38.55	RRGSSGSVDETLFALPAASEPVIR						
			27.11	RRHSHSHSPMSTR	3	4	6	8	0	0
458.17	1828.66	4	27.11	RRHSHSHSPMSTR						
			29.05	RRSPSPAPPPR	2	3	5	0	0	0
464.53	1390.58	3	29.05	RRSPSPAPPPR						
696.29	1390.57	2	25.4	RRSPSPAPPPR						
			33.31	RRSPSPYYSR	2	3	7	0	0	0
721.77	1441.52	2	33.31	RRSPSPYYSR						
			43.82	RRSQSIEQESQEK	2	3	5	0	0	0
607.59	1819.74	3	43.82	RRSQSIEQESQEK						
			33.54	RSERASLPHSKNEITFSHNSSK	5	2	15	17	20	21
739.28	2953.07	4	33.54	RSERASLPHSKNEITFSHNSSK						
			38.99	RSPSVSSPEPAEK	4	2	4	6	7	0
578.2	1731.57	3	38.99	RSPSVSSPEPAEK						
866.78	1731.55	2	29.58	RSPSVSSPEPAEK						
			32.7	RSSLNGKGESSLTALER	3	2	10	13	0	0
522.22	2084.84	4	32.7	RSSLNGKGESSLTALER						
			42.89	RVESEESGDEEGKK	2	4	7	0	0	0
612.91	1835.72	3	42.89	RVESEESGDEEGKK						
			34.59	RVSHSPPPK	2	3	5	0	0	0
589.75	1177.48	2	34.59	RVSHSPPPK						
			27.16	RVSHSPPPKQR	2	3	5	0	0	0
731.82	1461.62	2	27.16	RVSHSPPPKQR						
			25.47	RVSSSRSVSGSPEPAAK	5	3	4	5	7	9
710.57	2128.68	3	25.47	RVSSSRSVSGSPEPAAK						
			25.85	RWIEIMSSTNTMPVSSCTPK	4	8	11	16	18	0
872.65	2614.92	3	25.85	RWIEIMSSTNTMPVSSCTPK						
			34.11	RYSPSPPPK	2	3	5	0	0	0
401.49	1201.45	3	34.11	RYSPSPPPK						
601.74	1201.46	2	31.42	RYSPSPPPK						
			25.88	SAPASPTHPGLMSPR	2	1	5	0	0	0
560.55	1678.64	3	25.88	SAPASPTHPGLMSPR						
401.21	800.41	2	43.03	SAPATGGVK						
			69.49	SASPDDDLGSSNWEAADLGNEER	1	3	0	0	0	0
876.38	2626.12	3	69.49	SASPDDDLGSSNWEAADLGNEER						
			42.49	SASQSSLDKLDQELKEQQK	2	1	6	0	0	0
599.02	2392.06	4	42.49	SASQSSLDKLDQELKEQQK						
798.02	2391.04	3	26.47	SASQSSLDKLDQELKEQQK						
			30.23	SATRPSPSPER	2	6	8	0	0	0
686.76	1371.51	2	30.23	SATRPSPSPER						
			36.81	SDFDEFER	1	1	0	0	0	0
597.71	1193.41	2	36.81	SDFDEFER						
			41.16	SDLRKSPVFSDEDSDLDFDISK	3	6	10	14	0	0
717.8	2867.16	4	41.16	SDLRKSPVFSDEDSDLDFDISK						
			25.86	SEDARSSPSQR	2	6	7	0	0	0
474.51	1420.5	3	25.86	SEDARSSPSQR						
			31.4	SESKHKSPK	2	3	7	0	0	0
405.84	1214.5	3	31.4	SESKHKSPK						
			30.56	SESWER	1	3	0	0	0	0
458.18	914.34	2	30.56	SESWER						
			32.81	SETAPAETATPAPVEKSPAK	2	3	17	0	0	0
733.3	2196.89	3	32.81	SETAPAETATPAPVEKSPAK						
			38.73	SFSKEVEER	1	1	0	0	0	0
623.77	1245.53	2	38.73	SFSKEVEER						
			45.98	SFSMQDLR	1	3	0	0	0	0
546.22	1090.42	2	45.98	SFSMQDLR						
			37.31	SFSSPENFQR	1	3	0	0	0	0
653.76	1305.5	2	37.31	SFSSPENFQR						
			40.66	SGAQASSTPLSPTR	2	8	11	0	0	0
767.29	1532.57	2	40.66	SGAQASSTPLSPTR						
			25.51	SGDTTLGPERAMSPVTITTFSR	3	1	13	21	0	0
869.72	2606.15	3	25.51	SGDTTLGPERAMSPVTITTFSR						
			52.12	SGMSPEQSR	1	4	0	0	0	0
543.7	1085.38	2	52.12	SGMSPEQSR						
543.7	1085.38	2	52.12	SGMSPEQSR						
			43.4	SGSSPEVKDKPR	2	3	4	0	0	0
496.86	1487.55	3	43.4	SGSSPEVKDKPR						
			27.08	SGSSSER	1	4	0	0	0	0
408.65	815.28	2	27.08	SGSSSER						
			30.31	SGSSSPDSEITELKFPSINHD	2	1	3	0	0	0
826.01	2475.02	3	30.31	SGSSSPDSEITELKFPSINHD						
			47.13	SGSYSYLEER	1	3	0	0	0	0
656.76	1311.51	2	47.13	SGSYSYLEER						
			39.91	SGTPPRQGSITSPQANEQSVTPQRR	2	1	21	0	0	0
717.81	2867.21	4	39.91	SGTPPRQGSITSPQANEQSVTPQRR						
			53.98	SGYHDDSDEDLLE	1	7	0	0	0	0
836.82	1671.62	2	53.98	SGYHDDSDEDLLE						
			38.45	SKESVPEFPLSPPK	1	11	0	0	0	0
555.27	1662.79	3	38.45	SKESVPEFPLSPPK						

			36.59	SKPSSSEEDEGPGDKQEK	3	4	5	6	0	0
568.96	2271.8	4	36.59	SKPSSSEEDEGPGDKQEK						
757.94	2270.81	3	32.17	SKPSSSEEDEGPGDKQEK						
			60.64	SLDSDESEDEEDDYQQK	2	4	7	0	0	0
777.94	2330.8	3	60.64	SLDSDESEDEEDDYQQK						
			61.74	SLDSDESEDEEDDYQQKR	2	1	7	0	0	0
1244.44	2486.87	2	61.74	SLDSDESEDEEDDYQQKR						
829.98	2486.91	3	53.18	SLDSDESEDEEDDYQQKR						
			29.14	SLGTQPPK	2	1	4	0	0	0
501.19	1000.36	2	29.14	SLGTQPPK						
			46.87	SLPTTVPESPNYR	2	1	9	0	0	0
550.23	1647.67	3	46.87	SLPTTVPESPNYR						
824.84	1647.66	2	38.57	SLPTTVPESPNYR						
			37.31	SLSDSESDDSK	1	3	0	0	0	0
660.24	1318.46	2	37.31	SLSDSESDDSK						
			77.97	SLSTSGESLYHVLGLDK	1	3	0	0	0	0
643.31	1926.92	3	77.97	SLSTSGESLYHVLGLDK						
964.45	1926.89	2	61.54	SLSTSGESLYHVLGLDK						
			25.57	SLSYSPVER	1	5	0	0	0	0
573.24	1144.47	2	25.57	SLSYSPVER						
			43.11	SLYASSPGGVYATR	1	6	0	0	0	0
761.83	1521.64	2	43.11	SLYASSPGGVYATR						
			38.14	SPHSKSPAEQR	2	1	6	0	0	0
471.19	1410.55	3	38.14	SPHSKSPAEQR						
			37.87	SPSPGLFR	1	3	0	0	0	0
477.72	953.42	2	37.87	SPSPGLFR						
			26.35	SPVLHPPK	1	1	0	0	0	0
485.15	968.29	2	26.35	SPVLHPPK						
			28.14	SQSRSNSPLPVPPSKARSVSPPPK	5	1	3	5	7	20
972	2912.98	3	28.14	SQSRSNSPLPVPPSKARSVSPPPK						
			56.21	SQSSDTEQQSPTSGGGK	2	4	10	0	0	0
941.82	1881.62	2	56.21	SQSSDTEQQSPTSGGGK						
628.22	1881.63	3	51.24	SQSSDTEQQSPTSGGGK						
			62.1	SRINSSGESGDESDEFLQSR	4	1	6	9	13	0
868.64	2602.9	3	62.1	SRINSSGESGDESDEFLQSR						
			43.53	SRLTPVSPESSSTEEK	2	4	7	0	0	0
650.61	1948.8	3	43.53	SRLTPVSPESSSTEEK						
			25.61	SRPKSGGSGHAVAEPASPEQELDQNKGK	2	8	17	0	0	0
773.33	3089.29	4	25.61	SRPKSGGSGHAVAEPASPEQELDQNKGK						
			49.79	SRSGEGEVSGLMR	1	3	0	0	0	0
496.21	1485.62	3	49.79	SRSGEGEVSGLMR						
			29.65	SRSGSSPEVDSK	4	1	3	5	6	0
799.23	1596.45	2	29.65	SRSGSSPEVDSK						
			63.26	SRSPSSPELNNK	3	1	3	5	0	0
528.52	1582.53	3	63.26	SRSPSSPELNNK						
792.27	1582.53	2	39.75	SRSPSSPELNNK						
			34.23	SRSPSSPELNNK	4	1	3	5	6	0
832.25	1662.49	2	34.23	SRSPSSPELNNK						
832.25	1662.49	2	34.23	SRSPSSPELNNK						
			33.19	SRSRDKEER	2	1	3	0	0	0
460.19	1377.53	3	33.19	SRSRDKEER						
			27.23	SRSWEDSPER	2	1	7	0	0	0
488.85	1463.52	3	27.23	SRSWEDSPER						
			61.94	SRTGSESSQTGTSTTSSR	2	5	8	0	0	0
668.91	2003.71	3	61.94	SRTGSESSQTGTSTTSSR						
1002.86	2003.71	2	37.24	SRTGSESSQTGTSTTSSR						
			35.16	SRTGSESSQTGTSTTSSR	3	3	5	7	0	0
695.57	2083.68	3	35.16	SRTGSESSQTGTSTTSSR						
			39.21	SRVSVSPGR	2	1	6	0	0	0
559.72	1117.42	2	39.21	SRVSVSPGR						
			26.93	SSGDPEQIKEDSLSEESADAR	3	1	2	17	0	0
651.25	2600.98	4	26.93	SSGDPEQIKEDSLSEESADAR						
			59.81	SSGHSSSELSPDAVEK	2	1	10	0	0	0
611.57	1831.69	3	59.81	SSGHSSSELSPDAVEK						
611.57	1831.69	3	59.81	SSGHSSSELSPDAVEK						
			130.49	SSGSPYGGGYGSGGGSGGYGSR	1	4	0	0	0	0
1002.85	2003.69	2	130.49	SSGSPYGGGYGSGGGSGGYGSR						
			39.25	SSMSGLHLVK	1	4	0	0	0	0
576.76	1151.5	2	39.25	SSMSGLHLVK						
			35.86	SSPFLDAAPSLPDSR	1	14	0	0	0	0
560.93	1679.76	3	35.86	SSPFLDAAPSLPDSR						
			39.54	SSPGQTPEEGAQALAEFAALHGPALR	1	2	0	0	0	0
686.33	2741.29	4	39.54	SSPGQTPEEGAQALAEFAALHGPALR						
			29.01	SSRSSPELTR	2	4	5	0	0	0
436.5	1306.47	3	29.01	SSRSSPELTR						
436.5	1306.47	3	29.01	SSRSSPELTR						
			31.26	SSSFGNFDRFR	1	3	0	0	0	0
476.53	1426.57	3	31.26	SSSFGNFDRFR						
			48.58	SSSPAPADIAQTVQEDLR	1	1	0	0	0	0
674.32	2019.94	3	48.58	SSSPAPADIAQTVQEDLR						
			26.44	SSSSRDTSPPR	4	1	2	3	4	0
509.22	1524.65	3	26.44	SSSSRDTSPPR						
			29.51	STFREESPLR	1	7	0	0	0	0
448.54	1342.6	3	29.51	STFREESPLR						
			40.43	STSYGYSR	1	3	0	0	0	0
507.67	1013.34	2	40.43	STSYGYSR						
			45.58	SVSGSPEPAAK	3	1	3	5	0	0
649.21	1296.4	2	45.58	SVSGSPEPAAK						
			37.88	SVSSYGNIR	1	4	0	0	0	0

538.72	1075.43	2	37.88	SVSSYGNIR						
			33.37	SVSVHETRKSRSSTGSMNVTLFHK	2	3	20	0	0	0
716.3	2861.17	4	33.37	SVSVHETRKSRSSTGSMNVTLFHK						
			49.45	SVVSFDKVK	1	4	0	0	0	0
558.77	1115.52	2	49.45	SVVSFDKVK						
			31.19	SYTSGPGSR	1	3	0	0	0	0
503.18	1004.34	2	31.19	SYTSGPGSR						
			42.43	TASFSESR	1	3	0	0	0	0
496.69	991.37	2	42.43	TASFSESR						
			36.43	TFSATVR	1	3	0	0	0	0
438.19	874.36	2	36.43	TFSATVR						
			31.71	TGDLGIPPNPEDRSPSPEPIYNSEGK	2	14	16	0	0	0
753.33	3009.29	4	31.71	TGDLGIPPNPEDRSPSPEPIYNSEGK						
			27.87	TGDLGIPPNPEDRSPSPEPIYNSEGKR	2	14	16	0	0	0
792.36	3165.4	4	27.87	TGDLGIPPNPEDRSPSPEPIYNSEGKR						
			25.7	TGVTSTSDSEEEGDDQEGEKKR	2	5	9	0	0	0
890.7	2669.07	3	25.7	TGVTSTSDSEEEGDDQEGEKKR						
			29.87	TLLDSLRSTSSPAK	3	8	9	11	0	0
581.59	1741.76	3	29.87	TLLDSLRSTSSPAK						
			26.26	TLSMDKGF	1	3	0	0	0	0
503.71	1005.4	2	26.26	TLSMDKGF						
			38.86	TPGSRQASPTEVVER	2	1	4	0	0	0
605.93	1814.77	3	38.86	TPGSRQASPTEVVER						
			26.36	TPTSGQSVSTCSSKNTSK	5	4	9	12	13	17
554.47	2213.86	4	26.36	TPTSGQSVSTCSSKNTSK						
			44.53	TRSPSPDDILER	2	3	5	0	0	0
534.9	1601.67	3	44.53	TRSPSPDDILER						
			25.3	TRSRSPESQVIGENTKQP	2	1	5	0	0	0
739.32	2214.95	3	25.3	TRSRSPESQVIGENTKQP						
			25.24	TSPIMSPR	2	2	6	0	0	0
531.69	1061.37	2	25.24	TSPIMSPR						
			29.45	TSPVSLWSR	1	2	0	0	0	0
563.75	1125.49	2	29.45	TSPVSLWSR						
			27.72	TSSCDSSEDSSERTGTLK	2	3	6	0	0	0
530.7	2118.79	4	27.72	TSSCDSSEDSSERTGTLK						
			39.12	TSSEDNLYLAVLR	1	2	0	0	0	0
534.93	1601.76	3	39.12	TSSEDNLYLAVLR						
			25.17	TSSSIDLPR	3	2	3	4	0	0
415.22	1242.64	3	25.17	TSSSIDLPR						
			27.93	TTDESQTTGKQSLIPRTPK	3	1	2	8	0	0
790.29	2367.84	3	27.93	TTDESQTTGKQSLIPRTPK						
			28.73	VAEPGAEATSSTGEESGSEHPPAVPMHNK	4	9	10	16	18	0
827.81	3307.21	4	28.73	VAEPGAEATSSTGEESGSEHPPAVPMHNK						
			31.78	VEAKEESEESDEDMGFGLFD	2	7	10	0	0	0
854.99	2561.96	3	31.78	VEAKEESEESDEDMGFGLFD						
1281.99	2561.97	2	30.07	VEAKEESEESDEDMGFGLFD						
			42.43	VEMYSGSDDDDDFNKLPK	2	5	7	0	0	0
1166.93	2331.85	2	42.43	VEMYSGSDDDDDFNKLPK						
			30.11	VFPSVASPQK	1	7	0	0	0	0
577.26	1152.5	2	30.11	VFPSVASPQK						
834.31	1666.61	2	32.49	VFTCRSMNEAIPSGK						
			34.47	VGSSNFR	1	3	0	0	0	0
430.67	859.34	2	34.47	VGSSNFR						
			25.39	VHSGERPYNCTACEKAFIYK	3	8	11	19	0	0
650.3	2597.17	4	25.39	VHSGERPYNCTACEKAFIYK						
466.25	930.49	2	43.53	VISSIEQK						
			28.15	VKVQDLVLEPTQNITTKGVSVRR	2	11	20	0	0	0
696.3	2781.16	4	28.15	VKVQDLVLEPTQNITTKGVSVRR						
			34.65	VLGSEGEEEDEALSPAK	2	4	14	0	0	0
673.28	2016.83	3	34.65	VLGSEGEEEDEALSPAK						
			36.69	VLSDSEDEEKDADVPGTSTR	2	3	5	0	0	0
808	2420.98	3	36.69	VLSDSEDEEKDADVPGTSTR						
			56.82	VPSVESLFR	1	3	0	0	0	0
571.28	1140.54	2	56.82	VPSVESLFR						
			53.56	VQEHEDSGDSEVENEAK	2	7	10	0	0	0
725.3	2172.86	3	53.56	VQEHEDSGDSEVENEAK						
1087.4	2172.79	2	45.8	VQEHEDSGDSEVENEAK						
			29.14	VSGRTSPPLLDR	1	5	0	0	0	0
469.23	1404.66	3	29.14	VSGRTSPPLLDR						
			30.42	VTNDISPESSPGVGR	2	6	9	0	0	0
858.85	1715.68	2	30.42	VTNDISPESSPGVGR						
			33.55	WDETPGR	1	4	0	0	0	0
491.68	981.34	2	33.55	WDETPGR						
			26.67	WGGKGGSYSQAACSDSAQGSD	3	7	9	14	0	0
767.27	2298.8	3	26.67	WGGKGGSYSQAACSDSAQGSD						
			32.06	WKAEGHSDDESDSEGSDSESTSR	4	7	11	13	16	0
981.98	2942.92	3	32.06	WKAEGHSDDESDSEGSDSESTSR						
			29.09	WNRKAFQGETPNKPSGGCLSGCSRK	2	15	23	0	0	0
724.81	2895.22	4	29.09	WNRKAFQGETPNKPSGGCLSGCSRK						
			27.12	YESGPDGGEEDGTGSLKR	2	3	15	0	0	0
1048.87	2095.73	2	27.12	YESGPDGGEEDGTGSLKR						
			54.38	YFDSGDYNMAK	1	4	0	0	0	0
716.77	1431.52	2	54.38	YFDSGDYNMAK						
			39.87	YGGDSDHPSDGETSVQPMMTK	2	5	13	0	0	0
823.63	2467.87	3	39.87	YGGDSDHPSDGETSVQPMMTK						
			60.13	YGMGTSVER	1	6	0	0	0	0
554.21	1106.41	2	60.13	YGMGTSVER						
			46.39	YHGHSMSDPGVSYR	2	5	12	0	0	0
594.21	1779.62	3	46.39	YHGHSMSDPGVSYR						

604.3	1206.58	2	40.76	YIDQEELNK						
604.3	1206.58	2	40.76	YIDQEELNK						
			33.99	YKEESDSD	2	5	7	0	0	0
601.7	1201.38	2	33.99	YKEESDSD						
			28.5	YLCASSPSGTSGIVETQYF	2	10	18	0	0	0
733.48	2197.42	3	28.5	YLCASSPSGTSGIVETQYF						
			31.21	YSHSGSSSPDTK	2	7	8	0	0	0
480.82	1439.45	3	31.21	YSHSGSSSPDTK						
480.82	1439.45	3	31.21	YSHSGSSSPDTK						
			27.25	YSTKFLSNFLGSKR	2	2	7	0	0	0
911.9	1821.79	2	27.25	YSTKFLSNFLGSKR						

Table 4: Details of phosphopeptides identified by IMAC using optimized buffers (Fig. 3B)

pep_mz	pep_mr	pep_z	pep_score	pep_sequence	Num Mods	ModPos1	ModPos2	ModPos3	ModPos4	ModPos5
489.56	1465.66	3	30.16	AAESETPGKSPEK						
			32.57	AAESETPGKSPEK	1	10	0	0	0	0
733.85	1465.68	2	32.57	AAESETPGKSPEK						
			31.83	AAESETPGKSPEKKPK	1	10	0	0	0	0
607.3	1818.88	3	31.83	AAESETPGKSPEKKPK						
			27.97	AAGARPLTSPESLSR	1	8	0	0	0	0
540.93	1619.78	3	27.97	AAGARPLTSPESLSR						
			56.63	AAKLSEGSQPAEEEEDQETPSR	2	5	8	0	0	0
887.71	2660.12	3	56.63	AAKLSEGSQPAEEEEDQETPSR						
			40.72	AAKNSEEEEEEKKK	1	5	0	0	0	0
609.62	1825.84	3	40.72	AAKNSEEEEEEKKK						
609.81	1217.6	2	36.52	AALAPAKESPR						
			40.16	AALAPAKESPR	1	9	0	0	0	0
406.87	1217.59	3	40.16	AALAPAKESPR						
			55.64	AALLKASPK	1	7	0	0	0	0
496.77	991.53	2	55.64	AALLKASPK						
			53.93	AARKSAPATGGVK	1	5	0	0	0	0
654.32	1306.63	2	53.93	AARKSAPATGGVK						
			43.25	AASAPAKESPR	1	9	0	0	0	0
596.78	1191.55	2	43.25	AASAPAKESPR						
			42.36	AASPSPQSVR	2	3	5	0	0	0
587.24	1172.46	2	42.36	AASPSPQSVR						
			42.95	AAVLSDSEDEEKASAK	2	5	7	0	0	0
631.94	1892.79	3	42.95	AAVLSDSEDEEKASAK						
			42.26	AAYGDLSSEEEEENEPESLGVVYK	2	7	8	0	0	0
977.42	2929.23	3	42.26	AAYGDLSSEEEEENEPESLGVVYK						
789.87	1577.73	2	27.32	AEEDEILNRSPR						
			30.03	AEEDEILNRSPR	1	10	0	0	0	0
789.87	1577.73	2	30.03	AEEDEILNRSPR						
			31.27	AEFTSPPSLFK	1	5	0	0	0	0
666.3	1330.58	2	31.27	AEFTSPPSLFK						
			28.65	AEQSLHDLQER	1	4	0	0	0	0
487.9	1460.67	3	28.65	AEQSLHDLQER						
			40.84	AESPDLR	1	3	0	0	0	0
455.21	908.4	2	40.84	AESPDLR						
521.27	1560.79	3	35.41	AGDLLEDSPKRPK						
521.27	1560.8	3	42.06	AGDLLEDSPKRPK						
			52.12	AGDLLEDSPKRPK	1	8	0	0	0	0
781.41	1560.8	2	52.12	AGDLLEDSPKRPK						
425.87	1274.57	3	29.85	AGETRFTDTR						
425.85	1274.54	3	32.15	AGETRFTDTR						
			47.59	AGETRFTDTR	1	7	0	0	0	0
638.29	1274.56	2	47.59	AGETRFTDTR						
			83.26	AGGSAALSPSKK	1	8	0	0	0	0
584.27	1166.53	2	83.26	AGGSAALSPSKK						
			28.73	AGLGSPERPPKTSPGSPR	3	12	13	16	0	0
515.73	2058.89	4	28.73	AGLGSPERPPKTSPGSPR						
			30.88	AGLGSPERPPKTSPGSPR	2	13	16	0	0	0
495.74	1978.94	4	30.88	AGLGSPERPPKTSPGSPR						
721.12	1440.22	2	26.59	AGPGTLSVTIEGPSK						
			26.71	AGRLLSYIPYQLYTKQSSVQK	2	6	10	0	0	0
655.24	2616.94	4	26.71	AGRLLSYIPYQLYTKQSSVQK						
			40.33	AGSPDVLR	1	3	0	0	0	0
461.73	921.44	2	40.33	AGSPDVLR						
830.42	1658.82	2	25.55	AHCDSSMIDDLLGVK						
			55.02	AITSLLGGGSPK	1	10	0	0	0	0
597.81	1193.6	2	55.02	AITSLLGGGSPK						
			42.82	AKEVELVSE	1	8	0	0	0	0
570.28	1138.54	2	42.82	AKEVELVSE						
			44.36	AKPAMPQDSVPSPR	1	12	0	0	0	0
530.26	1587.76	3	44.36	AKPAMPQDSVPSPR						
			42.46	AKSPTPDGSER	2	3	5	0	0	0
673.76	1345.51	2	42.46	AKSPTPDGSER						
410.84	1229.51	3	29.02	ALSASHTDLAH						
			70.69	ALSASHTDLAH	1	5	0	0	0	0
615.77	1229.53	2	70.69	ALSASHTDLAH						
845.89	1689.77	2	28.99	ALSRQLSSGVSEIR						
			48.71	ALSRQLSSGVSEIR	2	3	7	0	0	0
564.27	1689.78	3	48.71	ALSRQLSSGVSEIR						
680.31	2717.21	4	25.72	ALVEFESNPEETREPGSPPSVQR						
			27.84	ALVEFESNPEETREPGSPPSVQR	1	17	0	0	0	0
907.43	2719.27	3	27.84	ALVEFESNPEETREPGSPPSVQR						
			44.2	APQTSSSPPPVR	1	6	0	0	0	0
659.3	1316.59	2	44.2	APQTSSSPPPVR						

			27.51	AQSGSDSSPEPKAPAPR	4	3	5	7	8	0
681.92	2042.75	3	27.51	AQSGSDSSPEPKAPAPR						
			41.38	ARGDSEALDEES	1	5	0	0	0	0
721.81	1441.6	2	41.38	ARGDSEALDEES						
			26.75	ARGSSGSTRNASASPSAVASTDSSAATSI	5	4	5	7	12	14
894.91	3575.61	4	26.75	ARGSSGSTRNASASPSAVASTDSSAATSI						
			34.48	ARSVSPPPKR	2	3	5	0	0	0
634.78	1267.54	2	34.48	ARSVSPPPKR						
			27	ASAPERTPSPAPK	2	7	9	0	0	0
499.56	1495.65	3	27	ASAPERTPSPAPK						
			45.75	ASAVSELSPR	1	8	0	0	0	0
562.76	1123.5	2	45.75	ASAVSELSPR						
			52.82	ASEDTTSGSPPKK	1	7	0	0	0	0
713.81	1425.6	2	52.82	ASEDTTSGSPPKK						
499.59	1495.75	3	38.86	ASGQAFELILSPR						
			52.77	ASGQAFELILSPR	1	11	0	0	0	0
748.87	1495.73	2	52.77	ASGQAFELILSPR						
			39.77	ASPSFEER	1	2	0	0	0	0
522.73	1043.44	2	39.77	ASPSFEER						
			35.36	ASPSKPASAPASR	1	2	0	0	0	0
660.79	1319.57	2	35.36	ASPSKPASAPASR						
			39.02	ASRVPSSDEEVVEEPQSR	2	6	7	0	0	0
749.33	2244.96	3	39.02	ASRVPSSDEEVVEEPQSR						
564.88	1691.63	3	39.23	ASSHSSQTQGGGSVTK						
			61.95	ASSHSSQTQGGGSVTK	2	2	6	0	0	0
846.81	1691.6	2	61.95	ASSHSSQTQGGGSVTK						
			77.85	ASSLNFLNK	1	3	0	0	0	0
544.26	1086.5	2	77.85	ASSLNFLNK						
			27.15	ASSSGPRSPLDQR	1	8	0	0	0	0
489.22	1464.63	3	27.15	ASSSGPRSPLDQR						
485.9	1454.67	3	33.91	ASSVSTKESPARK						
			69.34	ASSVSTKESPARK	1	9	0	0	0	0
728.34	1454.66	2	69.34	ASSVSTKESPARK						
			26.31	ATAEVLNIGKK	1	2	0	0	0	0
625.8	1249.58	2	26.31	ATAEVLNIGKK						
506.55	1516.63	3	41.55	ATAPQTQHVSPMR						
			47.57	ATAPQTQHVSPMR	1	10	0	0	0	0
759.34	1516.67	2	47.57	ATAPQTQHVSPMR						
			32.52	ATDSDLSSPR	1	8	0	0	0	0
585.76	1169.51	2	32.52	ATDSDLSSPR						
664.33	1989.98	3	41.16	ATNESEDEIPQLVPIGK						
663.99	1988.94	3	42.24	ATNESEDEIPQLVPIGK						
			59.44	ATNESEDEIPQLVPIGK	1	5	0	0	0	0
995.47	1988.93	2	59.44	ATNESEDEIPQLVPIGK						
			53.58	ATSSTQSLAR	1	4	0	0	0	0
558.24	1114.47	2	53.58	ATSSTQSLAR						
			29.98	AVEESSDEERQR	2	5	6	0	0	0
560.24	1677.71	3	29.98	AVEESSDEERQR						
			26.46	AVPIGTPPK	1	6	0	0	0	0
487.29	972.56	2	26.46	AVPIGTPPK						
			38.26	AYTHQVVTR	1	3	0	0	0	0
584.77	1167.53	2	38.26	AYTHQVVTR						
			27.57	AYVRAELSLKSVPGDGATKALNHSVEDIEI	3	2	8	24	0	0
1050.92	4199.64	4	27.57	AYVRAELSLKSVPGDGATKALNHSVEDIEI						
			26.17	CGSGEAKSAASGK	3	3	8	11	0	0
710.3	1418.58	2	26.17	CGSGEAKSAASGK						
			25.63	CYEVLKASLNQEVSLITNGSPR	3	14	17	20	0	0
676.29	2701.14	4	25.63	CYEVLKASLNQEVSLITNGSPR						
			31.05	DAGFSSPDGSDPK	1	6	0	0	0	0
708.31	1414.61	2	31.05	DAGFSSPDGSDPK						
			34.81	DASPSKEER	1	3	0	0	0	0
577.74	1153.46	2	34.81	DASPSKEER						
			25.82	DDLVPFTGEKK	1	7	0	0	0	0
693.33	1384.64	2	25.82	DDLVPFTGEKK						
			26.34	DGVLISEGQGFMTREFLK	2	6	13	0	0	0
747.96	2240.84	3	26.34	DGVLISEGQGFMTREFLK						
			29.94	DKSPVREPIDNLTPEER	1	3	0	0	0	0
720.36	2158.05	3	29.94	DKSPVREPIDNLTPEER						
			37.45	DLAVPAALTPR	1	9	0	0	0	0
616.31	1230.61	2	37.45	DLAVPAALTPR						
			28.17	DLDLPPGSPGR	1	8	0	0	0	0
623.78	1245.54	2	28.17	DLDLPPGSPGR						
			60.2	DMESPTKLDVTLAK	1	4	0	0	0	0
842.4	1682.78	2	60.2	DMESPTKLDVTLAK						
			29.58	DNTFFRESPVGR	1	8	0	0	0	0
773.86	1545.71	2	29.58	DNTFFRESPVGR						
			25.98	DRDQCILITGESGSGKTEASK	5	9	12	14	17	20
667.28	2665.09	4	25.98	DRDQCILITGESGSGKTEASK						
			26	DSGPRTASELPHATASSR	4	2	8	14	17	0
734.7	2201.08	3	26	DSGPRTASELPHATASSR						
			41.63	DSYSSSRSDLYSSGR	1	5	0	0	0	0
596.93	1787.75	3	41.63	DSYSSSRSDLYSSGR						

			25.94	DTEFSTISKGAAPSASSTPTIIASPK	5	2	5	6	8	24
1002.37	3004.09	3	25.94	DTEFSTISKGAAPSASSTPTIIASPK						
			59.68	DTSPSSGSAVSSSK	1	3	0	0	0	0
702.78	1403.54	2	59.68	DTSPSSGSAVSSSK						
584.6	1750.78	3	25.23	DVYLSPRDDGYSTK						
			60.58	DVYLSPRDDGYSTK	1	5	0	0	0	0
876.4	1750.78	2	60.58	DVYLSPRDDGYSTK						
694.59	2080.76	3	57.08	DWEDDSDEDMSNFDR						
			85.08	DWEDDSDEDMSNFDR	1	6	0	0	0	0
1041.36	2080.71	2	85.08	DWEDDSDEDMSNFDR						
			28.32	DYDDMSPR	1	6	0	0	0	0
567.7	1133.39	2	28.32	DYDDMSPR						
			25.58	DYGHSSSRDDYPSR	1	5	0	0	0	0
593.24	1776.69	3	25.58	DYGHSSSRDDYPSR						
			26.31	EAAHPTDVSISK	2	6	11	0	0	0
728.31	1454.61	2	26.31	EAAHPTDVSISK						
			31.84	EAALPPVSPLK	1	8	0	0	0	0
615.32	1228.63	2	31.84	EAALPPVSPLK						
			25.89	EAARSPDKPGGSPSASR	1	5	0	0	0	0
597.94	1790.79	3	25.89	EAARSPDKPGGSPSASR						
			78.86	EAEDSDSDDNIKR	2	5	7	0	0	0
584.57	1750.68	3	78.86	EAEDSDSDDNIKR						
			50.99	EAEEESDHN	1	6	0	0	0	0
612.23	1222.44	2	50.99	EAEEESDHN						
			26.69	EAVVDGTPCEPGKRDVCVDGSCRVVGCI	1	33	0	0	0	0
967.81	3867.21	4	26.69	EAVVDGTPCEPGKRDVCVDGSCRVVGCI						
			26.01	EDTPTSSRTLTYYTSTSSRQIVK	5	3	6	7	9	11
826.42	3301.64	4	26.01	EDTPTSSRTLTYYTSTSSRQIVK						
			27.57	EEEVSPARDVVEVTISESQEK	1	5	0	0	0	0
851.36	2551.06	3	27.57	EEEVSPARDVVEVTISESQEK						
			52.14	EEPVSSGPEEAVGK	2	5	6	0	0	0
822.84	1643.67	2	52.14	EEPVSSGPEEAVGK						
			32.82	EESEESDEDMGFGLFD	2	3	6	0	0	0
707.92	2120.75	3	32.82	EESEESDEDMGFGLFD						
			26.05	EESSEIKVETNISKTSWIRSSMAASGK	3	3	4	25	0	0
817.05	3264.16	4	26.05	EESSEIKVETNISKTSWIRSSMAASGK						
			26.43	EETISPSLNKTDVIHGQDK	2	3	5	0	0	0
780.69	2339.06	3	26.43	EETISPSLNKTDVIHGQDK						
			26.39	EETPDSAETPAEDRAGR	1	6	0	0	0	0
502.96	2007.82	4	26.39	EETPDSAETPAEDRAGR						
			37.04	EGEEPTVYSDEEEPKDESAR	1	9	0	0	0	0
839.36	2515.05	3	37.04	EGEEPTVYSDEEEPKDESAR						
			50.71	EGMNPSYDEYADSDEDQHDAYLER	1	13	0	0	0	0
1024.08	3069.22	3	50.71	EGMNPSYDEYADSDEDQHDAYLER						
			26.41	EGPTTGARTFDYWGQGTLVTVSSASPTS	3	5	25	28	0	0
845.65	3378.58	4	26.41	EGPTTGARTFDYWGQGTLVTVSSASPTS						
			25.15	EGPTTGARTFDYWGQGTLVTVSSASTK	3	5	25	26	0	0
775.34	3097.33	4	25.15	EGPTTGARTFDYWGQGTLVTVSSASTK						
			47.9	EGSPANWK	1	3	0	0	0	0
498.71	995.41	2	47.9	EGSPANWK						
			33.61	EGSPIPHDPEFGSK	1	3	0	0	0	0
544.92	1631.73	3	33.61	EGSPIPHDPEFGSK						
			27.56	EHLAGNSDTEPATRWGPKASLR	3	7	9	20	0	0
673.28	2689.09	4	27.56	EHLAGNSDTEPATRWGPKASLR						
			25.27	EIVLMSKYSNTEIHK	3	6	9	11	0	0
692.02	2073.04	3	25.27	EIVLMSKYSNTEIHK						
			35.71	EKQSDDEVYAPGLDIESSLK	1	4	0	0	0	0
801.37	2401.1	3	35.71	EKQSDDEVYAPGLDIESSLK						
			65.51	EKQSSEEEEKETR	2	4	5	0	0	0
933.88	1865.75	2	65.51	EKQSSEEEEKETR						
			25.88	EKRNFPLILESPSPNQTSLYFCASSLSR	3	11	17	25	0	0
1156.25	3465.74	3	25.88	EKRNFPLILESPSPNQTSLYFCASSLSR						
			28.28	EKTFKTPKGPSSVEDIK	2	6	12	0	0	0
527.26	2105	4	28.28	EKTFKTPKGPSSVEDIK						
			28.25	EKTIASDSEEEAGKELSDK	2	6	17	0	0	0
780.38	2338.11	3	28.25	EKTIASDSEEEAGKELSDK						
497.25	1488.72	3	29.03	EKTPELPEPSVK						
			38.8	EKTPELPEPSVK	1	3	0	0	0	0
745.37	1488.73	2	38.8	EKTPELPEPSVK						
489.89	1466.64	3	26.75	ELKTDSSPNQAR						
			65.1	ELKTDSSPNQAR	1	7	0	0	0	0
734.33	1466.65	2	65.1	ELKTDSSPNQAR						
			25.77	ELRDSAVYFCASSRHGESGGYTFGSGTR	3	5	25	30	0	0
902.41	3605.63	4	25.77	ELRDSAVYFCASSRHGESGGYTFGSGTR						
			47.78	ELSNSPLRENSFGSPLEFR	1	5	0	0	0	0
772.36	2314.07	3	47.78	ELSNSPLRENSFGSPLEFR						
			29.73	ELTAYVEDTVLFSRRTSK	4	3	9	13	17	0
831.32	2490.93	3	29.73	ELTAYVEDTVLFSRRTSK						
			28.39	ELTGEKQYKCHICGKAFHQK	2	3	8	0	0	0
850.88	2549.61	3	28.39	ELTGEKQYKCHICGKAFHQK						
632.04	2524.13	4	30.71	ELVLSSPEDLTQDFEEMKR						
			50.63	ELVLSSPEDLTQDFEEMKR	2	5	6	0	0	0

842.05	2523.14	3	50.63	ELVLSSPEDLTQDFEEMKR						
			39.66	ENPEPTQPPR	1	6	0	0	0	0
643.27	1284.53	2	39.66	ENPEPTQPPR						
			26.99	EPALLLTLTMTQPTTK	1	14	0	0	0	0
933.1	1864.18	2	26.99	EPALLLTLTMTQPTTK						
			26.67	EPLSPSNSRTPSPK	4	4	6	8	12	0
615.57	1843.69	3	26.67	EPLSPSNSRTPSPK						
			28.04	EPLSSDTLQVSIDTQRLAPQK	3	4	7	14	0	0
874.8	2621.38	3	28.04	EPLSSDTLQVSIDTQRLAPQK						
			29.47	EPSPEKNSK	1	3	0	0	0	0
569.25	1136.48	2	29.47	EPSPEKNSK						
			26.7	EPSPKQDVVGK	1	3	0	0	0	0
653.32	1304.62	2	26.7	EPSPKQDVVGK						
			43.54	EQDLPLAEAVRPKTPPVVIK	1	14	0	0	0	0
			34.32	ERSPALKSPLQSVVVR	2	3	8	0	0	0
489.25	1952.97	4	34.32	ERSPALKSPLQSVVVR						
			53.86	ERSPALKSPLQSVVVR	1	3	0	0	0	0
625.34	1873	3	53.86	ERSPALKSPLQSVVVR						
			25.11	ERSPSPLRGNVVPSPLPTR	3	3	5	14	0	0
582.78	2327.09	4	25.11	ERSPSPLRGNVVPSPLPTR						
505.55	1513.64	3	35.94	ERSPSPPTIQSK						
			37.11	ERSPSPPTIQSK	2	3	5	0	0	0
757.84	1513.66	2	37.11	ERSPSPPTIQSK						
			26.41	ESAKQTPAPAASVTGSR	4	2	6	14	16	0
669.29	2004.84	3	26.41	ESAKQTPAPAASVTGSR						
			34.15	ESDQTLAALLSPK	1	11	0	0	0	0
498.92	1493.74	3	34.15	ESDQTLAALLSPK						
			26.85	ESKISLQPIATVPNGGTTPK	2	2	17	0	0	0
742.31	2223.9	3	26.85	ESKISLQPIATVPNGGTTPK						
			30.7	ESLAKTMALTK	2	2	10	0	0	0
690.32	1378.62	2	30.7	ESLAKTMALTK						
			64.49	ESLKEEDESDDDNM	1	9	0	0	0	0
931.35	1860.68	2	64.49	ESLKEEDESDDDNM						
920.37	2758.1	3	32.51	ESSTSEGADQKMSSPEDDSDTKR						
690.79	2759.12	4	41.05	ESSTSEGADQKMSSPEDDSDTKR						
			43.09	ESSTSEGADQKMSSPEDDSDTKR	2	3	13	0	0	0
690.54	2758.14	4	43.09	ESSTSEGADQKMSSPEDDSDTKR						
			43.74	ESVPEFPLSPPK	1	9	0	0	0	0
483.57	1447.69	3	43.74	ESVPEFPLSPPK						
			35.49	ESVPEFPLSPPKKK	1	9	0	0	0	0
568.97	1703.89	3	35.49	ESVPEFPLSPPKKK						
			52.92	ETERASPIKMDLAPSK	1	6	0	0	0	0
636.98	1907.93	3	52.92	ETERASPIKMDLAPSK						
			25.84	ETESAPGSPR	1	8	0	0	0	0
576.75	1151.48	2	25.84	ETESAPGSPR						
			43.69	ETESAPGSPR	2	2	8	0	0	0
616.73	1231.45	2	43.69	ETESAPGSPR						
			25.63	ETGADCPPEAMQSPAQASPQSGRGPK	3	2	13	18	0	0
724.31	2893.2	4	25.63	ETGADCPPEAMQSPAQASPQSGRGPK						
			25.5	ETLPSSPSQGPQASITHPRMPGAR	5	2	6	8	14	16
733.32	2929.23	4	25.5	ETLPSSPSQGPQASITHPRMPGAR						
			56.87	ETPHSPGVEDAPIAK	1	5	0	0	0	0
561.94	1682.81	3	56.87	ETPHSPGVEDAPIAK						
			31.74	ETQSPEQVKSEK	1	2	0	0	0	0
763.34	1524.67	2	31.74	ETQSPEQVKSEK						
			33.48	EVDEDSEPEREVR	1	6	0	0	0	0
594.28	1779.81	3	33.48	EVDEDSEPEREVR						
			27.18	EVELVSE	1	6	0	0	0	0
470.71	939.41	2	27.18	EVELVSE						
			27.86	EVPGEHSDASEPQ	1	7	0	0	0	0
766.34	1530.67	2	27.86	EVPGEHSDASEPQ						
			45.4	EVSPEVVR	1	3	0	0	0	0
518.75	1035.49	2	45.4	EVSPEVVR						
			27.79	EYFTFPASKSQDR	1	10	0	0	0	0
566.93	1697.75	3	27.79	EYFTFPASKSQDR						
1084.5	2166.99	2	28.81	EYIPGQPPLSQSSDSSPTR						
			43.91	EYIPGQPPLSQSSDSSPTR	1	15	0	0	0	0
723.34	2166.98	3	43.91	EYIPGQPPLSQSSDSSPTR						
			29.14	FASDDEHDEHDENGATGPVKR	1	3	0	0	0	0
630.51	2517.99	4	29.14	FASDDEHDEHDENGATGPVKR						
			50.1	FGEYNSNMSPEEK	1	9	0	0	0	0
834.33	1666.64	2	50.1	FGEYNSNMSPEEK						
			33.54	FKIPGSPPESMGR	1	6	0	0	0	0
504.23	1509.67	3	33.54	FKIPGSPPESMGR						
			30.42	FNDSEGDDTEETEDYR	2	4	9	0	0	0
736.8	2207.38	3	30.42	FNDSEGDDTEETEDYR						
			31.54	FQETEFLSPPR	1	8	0	0	0	0
737.27	1472.53	2	31.54	FQETEFLSPPR						
			27.08	FQGKTKGGRASGLVPSVPSPTPLQTDSSI	1	5	0	0	0	0
880.36	3517.4	4	27.08	FQGKTKGGRASGLVPSVPSPTPLQTDSSI						
			37.71	FSFRSQEDLNEPIKR	1	5	0	0	0	0
501.25	2000.98	4	37.71	FSFRSQEDLNEPIKR						

			28.1	FSMPSLKGEGPEFDVNLSKANVDISAPK	2	5	25	0	0	0
1069.48	3205.41	3	28.1	FSMPSLKGEGPEFDVNLSKANVDISAPK						
			54.87	FTDKDQQPSGSEGEDDDAEAALKK	2	9	11	0	0	0
956.41	2866.21	3	54.87	FTDKDQQPSGSEGEDDDAEAALKK						
			27.68	FTDTRKDEQER	1	2	0	0	0	0
787.85	1573.68	2	27.68	FTDTRKDEQER						
			59.37	FVAFSGEGQSLR	1	10	0	0	0	0
469.22	1404.64	3	59.37	FVAFSGEGQSLR						
			32.2	GAESPFEEK	1	4	0	0	0	0
565.24	1128.48	2	32.2	GAESPFEEK						
			31.33	GAKEEHGGLIRSPR	1	12	0	0	0	0
814.92	1627.82	2	31.33	GAKEEHGGLIRSPR						
			26.47	GATGGSSSSGSGAGSCCLGAEGGADPR	4	3	8	9	11	0
873.66	2617.96	3	26.47	GATGGSSSSGSGAGSCCLGAEGGADPR						
732.8	1463.59	2	25.98	GCPLEAAPLPAEVR						
			25.87	GEVPPKETPK	1	8	0	0	0	0
401.87	1202.6	3	25.87	GEVPPKETPK						
596.96	1787.84	3	49.93	GGSISVQVNSIKFDSE						
			58.68	GGSISVQVNSIKFDSE	1	15	0	0	0	0
894.93	1787.84	2	58.68	GGSISVQVNSIKFDSE						
			63.17	GGSPDLWK	1	3	0	0	0	0
484.21	966.41	2	63.17	GGSPDLWK						
			58.26	GGSREYDTGGGSSSSR	1	3	0	0	0	0
841.33	1680.64	2	58.26	GGSREYDTGGGSSSSR						
			34.21	GHTASESDEQQWPEEK	1	3	0	0	0	0
674.29	2019.84	3	34.21	GHTASESDEQQWPEEK						
			33.74	GIPLATGDTSPEPELLPGAPLPPPK	1	10	0	0	0	0
650.86	2599.41	4	33.74	GIPLATGDTSPEPELLPGAPLPPPK						
717.64	2149.89	3	25.58	GIQESRAQDQQLDSPLGPR						
			32.05	GISPIVFDR	1	3	0	0	0	0
556.28	1110.55	2	32.05	GISPIVFDR						
			46.7	GKAESGKEEDKK	1	5	0	0	0	0
728.34	1454.66	2	46.7	GKAESGKEEDKK						
			34.46	GKGSPRPQAPK	1	4	0	0	0	0
406.2	1215.58	3	34.46	GKGSPRPQAPK						
			34.02	GKKYDSDSDDD	2	6	8	0	0	0
744.75	1487.49	2	34.02	GKKYDSDSDDD						
695.98	2084.92	3	37.49	GLLYDSDEEDEERPAR						
			43.59	GLLYDSDEEDEERPAR	1	6	0	0	0	0
1043.47	2084.92	2	43.59	GLLYDSDEEDEERPAR						
			53.45	GLMAGGRPEGQYSEDEDTDTDEYKEAK	2	13	18	0	0	0
1097.77	3290.28	3	53.45	GLMAGGRPEGQYSEDEDTDTDEYKEAK						
497.69	993.36	2	29.75	GLPPSMER						
			35.91	GLPPSMER	1	5	0	0	0	0
497.72	993.43	2	35.91	GLPPSMER						
1062.02	2122.03	2	31.78	GLSASLPDLDSENWIEVK						
			68.45	GLSASLPDLDSENWIEVK	1	3	0	0	0	0
708.34	2121.99	3	68.45	GLSASLPDLDSENWIEVK						
			32.98	GMDGSTNETASSRKKPK	3	5	9	11	0	0
692.31	2073.91	3	32.98	GMDGSTNETASSRKKPK						
			36.76	GNDPLTSSPGR	1	8	0	0	0	0
604.76	1207.51	2	36.76	GNDPLTSSPGR						
			26.5	GNSQNSTISPSQPPR	2	3	6	0	0	0
872.06	1742.1	2	26.5	GNSQNSTISPSQPPR						
			34.27	GPPDFSSDEEREPTPVLGSGAAAAGR	2	6	14	0	0	0
939.06	2814.16	3	34.27	GPPDFSSDEEREPTPVLGSGAAAAGR						
939.06	2814.16	3	34.27	GPPDFSSDEEREPTPVLGSGAAAAGR						
844.37	1686.72	2	28.48	GPPSPPAPVMHSPSR						
			39.98	GPPSPPAPVMHSPSR	2	4	12	0	0	0
563.24	1686.71	3	39.98	GPPSPPAPVMHSPSR						
			42.94	GPSSVEDIK	1	4	0	0	0	0
527.26	1052.5	2	42.94	GPSSVEDIK						
527.26	1052.5	2	42.94	GPSSVEDIK						
			34.4	GPSTPKSPGASNFSTLPK	1	3	0	0	0	0
623.3	1866.88	3	34.4	GPSTPKSPGASNFSTLPK						
			26.65	GPVSPSVSFQPLAR	1	4	0	0	0	0
768.3	1534.58	2	26.65	GPVSPSVSFQPLAR						
			27.09	GQSQTSPDHRSDTSSPEVR	4	6	11	14	15	0
816.29	2445.85	3	27.09	GQSQTSPDHRSDTSSPEVR						
			25.88	GRRSSDTEEESR	3	4	5	7	0	0
573.55	1717.62	3	25.88	GRRSSDTEEESR						
			47.55	GRSIDQDYER	1	3	0	0	0	0
458.88	1373.61	3	47.55	GRSIDQDYER						
			30.19	GSDSKPSLSLPR	1	9	0	0	0	0
451.55	1351.63	3	30.19	GSDSKPSLSLPR						
			29.48	GSEEDSPKKESK	1	6	0	0	0	0
490.88	1469.62	3	29.48	GSEEDSPKKESK						
			64	GSGTASDDEFENLR	1	6	0	0	0	0
824.35	1646.68	2	64	GSGTASDDEFENLR						
			28.2	GSLLPTSPR	1	7	0	0	0	0
511.25	1020.49	2	28.2	GSLLPTSPR						
			39.6	GSPHYFSPFRPY	1	7	0	0	0	0

516.89	1547.65	3	39.6	GSPHYFSPFRPY						
			50.42	GSPHYFSPFRPY	2	2	7	0	0	0
543.55	1627.61	3	50.42	GSPHYFSPFRPY						
			27.47	GTEKRESPSPAPKPR	2	2	9	0	0	0
613.62	1837.83	3	27.47	GTEKRESPSPAPKPR						
			25.54	GTRIPSSTTLSPPR	3	7	8	9	0	0
861.86	1721.71	2	25.54	GTRIPSSTTLSPPR						
			27.39	GVPFTLTTVDTR	3	5	7	11	0	0
525.53	1573.58	3	27.39	GVPFTLTTVDTR						
			26.07	GVSSRSAAAGLGGGGSRSSPGSVAASPS	5	4	6	16	18	19
813.58	3250.3	4	26.07	GVSSRSAAAGLGGGGSRSSPGSVAASPS						
			34.24	GYADSPSK	1	5	0	0	0	0
466.69	931.36	2	34.24	GYADSPSK						
			35.08	HDSPEDVK	1	3	0	0	0	0
531.72	1061.42	2	35.08	HDSPEDVK						
			32.91	HGTDLWIDNMSSAVPNHSPEKK	1	18	0	0	0	0
650.82	2599.24	4	32.91	HGTDLWIDNMSSAVPNHSPEKK						
			27.64	HIFSEDTSDFSGMSETKGVALSNVIHK	4	4	8	16	22	0
832.38	3325.5	4	27.64	HIFSEDTSDFSGMSETKGVALSNVIHK						
767.85	1533.68	2	34.94	HKMSPPPSGFGER						
512.23	1533.68	3	39.72	HKMSPPPSGFGER						
			45.68	HKMSPPPSGFGER	1	4	0	0	0	0
512.24	1533.69	3	45.68	HKMSPPPSGFGER						
			39.9	HLLTDLPLPPELPGGDLSPPDSPEPK	2	18	22	0	0	0
744.63	2974.5	4	39.9	HLLTDLPLPPELPGGDLSPPDSPEPK						
			61.44	HPPVLTPPDQEVIR	1	6	0	0	0	0
573.97	1718.88	3	61.44	HPPVLTPPDQEVIR						
			25.34	HRAEAPPLEREDSGTFSLGK	1	13	0	0	0	0
587.78	2347.1	4	25.34	HRAEAPPLEREDSGTFSLGK						
512.9	1535.68	3	33.45	HRHSPTGPPGFPR						
			37.05	HRHSPTGPPGFPR	1	4	0	0	0	0
512.91	1535.71	3	37.05	HRHSPTGPPGFPR						
485.88	1454.62	3	51.58	HRPSPPATPPPK						
			52.59	HRPSPPATPPPK	2	4	8	0	0	0
485.87	1454.6	3	52.59	HRPSPPATPPPK						
			30.9	HSHSHSPMSTR	2	4	6	0	0	0
479.82	1436.45	3	30.9	HSHSHSPMSTR						
			40.58	HSSISPVRLPLNSSLGAELSR	2	3	5	0	0	0
603.04	2408.15	4	40.58	HSSISPVRLPLNSSLGAELSR						
			25.34	HSSSSGASLTDESQSEEFTTK	4	8	13	19	20	0
868.69	2603.04	3	25.34	HSSSSGASLTDESQSEEFTTK						
			35.5	HTLGDSDNES	1	6	0	0	0	0
605.75	1209.49	2	35.5	HTLGDSDNES						
454.55	1360.62	3	28.59	HVDSLSQRSPK						
			29.49	HVDSLSQRSPK	1	9	0	0	0	0
681.32	1360.63	2	29.49	HVDSLSQRSPK						
			43.63	IAAPELHKGDSDSEEDEPTK	2	11	13	0	0	0
611.03	2440.08	4	43.63	IAAPELHKGDSDSEEDEPTK						
			30	IAASSSFR	1	5	0	0	0	0
466.72	931.42	2	30	IAASSSFR						
			25.12	IADSCALTSGK	2	4	9	0	0	0
627.3	1252.58	2	25.12	IADSCALTSGK						
			43.27	IAQVSPGPR	1	5	0	0	0	0
509.75	1017.48	2	43.27	IAQVSPGPR						
			27.63	ICQDMKEPEDNSPNTCQVISVIQDHPFK	1	12	0	0	0	0
845.89	3379.54	4	27.63	ICQDMKEPEDNSPNTCQVISVIQDHPFK						
			35.13	IDASKNEEDEGHSNSSPR	2	4	16	0	0	0
739.3	2214.88	3	35.13	IDASKNEEDEGHSNSSPR						
712.64	2134.91	3	41.72	IDASKNEEDEGHSNSSPR						
712.65	2134.92	3	53.19	IDASKNEEDEGHSNSSPR						
			78.86	IDASKNEEDEGHSNSSPR	1	16	0	0	0	0
1068.44	2134.87	2	78.86	IDASKNEEDEGHSNSSPR						
			43.54	IDISPSTFR	1	4	0	0	0	0
572.27	1142.53	2	43.54	IDISPSTFR						
424.55	1270.64	3	27.93	IDISPSTFRK						
			36.99	IDISPSTFRK	1	4	0	0	0	0
636.31	1270.61	2	36.99	IDISPSTFRK						
			38.15	IDISPSTLR	1	4	0	0	0	0
555.28	1108.55	2	38.15	IDISPSTLR						
972.41	1942.8	2	63.38	IEDVGSDEEDDSGKDK						
			71.28	IEDVGSDEEDDSGKDK	1	6	0	0	0	0
648.62	1942.83	3	71.28	IEDVGSDEEDDSGKDK						
			61.74	IEDVGSDEEDDSGKDKK	1	6	0	0	0	0
691.32	2070.93	3	61.74	IEDVGSDEEDDSGKDKK						
			38.78	IESPKLER	1	3	0	0	0	0
547.28	1092.55	2	38.78	IESPKLER						
			48.63	IGEGTYGVVYK	2	5	6	0	0	0
458.53	1372.58	3	48.63	IGEGTYGVVYK						
431.88	1292.61	3	57.16	IGEGTYGVVYK						
647.3	1292.58	2	62.04	IGEGTYGVVYK						
			71	IGEGTYGVVYK	1	6	0	0	0	0
647.31	1292.6	2	71	IGEGTYGVVYK						

			51.01	IGPLGLSPK	1	7	0	0	0	0
488.26	974.51	2	51.01	IGPLGLSPK						
			52.37	IGSGVER	1	3	0	0	0	0
413.2	824.38	2	52.37	IGSGVER						
			37.72	IHDLEDDLEMSSDASDASGEEGGRVPK	4	11	12	15	18	0
830.6	3318.36	4	37.72	IHDLEDDLEMSSDASDASGEEGGRVPK						
			28.02	IHSLQKQYDCHESEKTPNVEPK	3	3	13	16	0	0
974.37	2920.09	3	28.02	IHSLQKQYDCHESEKTPNVEPK						
			25.52	IKQSCEEENAGAEDQDGEGEGSK	2	4	22	0	0	0
674.62	2694.45	4	25.52	IKQSCEEENAGAEDQDGEGEGSK						
			28	ILILDEATSALDSESKSAVQAALEKDTPR	2	8	27	0	0	0
832.88	3327.49	4	28	ILILDEATSALDSESKSAVQAALEKDTPR						
537.82	1073.63	2	36.48	ILVPKSPVK						
			40.36	ILVPKSPVK	1	6	0	0	0	0
537.82	1073.64	2	40.36	ILVPKSPVK						
736.29	2941.12	4	46.03	INPDNYGMDLNSDDSTDDEAHPR						
			59.56	INPDNYGMDLNSDDSTDDEAHPR	3	12	15	16	0	0
981.72	2942.15	3	59.56	INPDNYGMDLNSDDSTDDEAHPR						
			26.03	IPKADSFAGSTSPIR	1	6	0	0	0	0
552.3	1653.87	3	26.03	IPKADSFAGSTSPIR						
817.66	2449.97	3	40.74	IQEQESSGEEDSDLSPEER						
			45.19	IQEQESSGEEDSDLSPEER	2	6	7	0	0	0
817.33	2448.98	3	45.19	IQEQESSGEEDSDLSPEER						
			25.46	IQNNDNVGKPKSRSPSR	2	12	14	0	0	0
522.24	2084.91	4	25.46	IQNNDNVGKPKSRSPSR						
480.57	1438.68	3	30.68	IRSSVEKENQK						
			37.74	IRSSVEKENQK	1	4	0	0	0	0
720.35	1438.68	2	37.74	IRSSVEKENQK						
503.92	1508.75	3	44.14	ISLSKSPTKTDPK						
			52.37	ISLSKSPTKTDPK	1	6	0	0	0	0
755.39	1508.77	2	52.37	ISLSKSPTKTDPK						
686.33	2055.98	3	27.22	ISPVMEAEELTNDILAIK						
			29.94	ISRPGDSDDSR	1	7	0	0	0	0
670.79	1339.57	2	29.94	ISRPGDSDDSR						
			52.97	ISSKSPGHMVILDQTK	1	3	0	0	0	0
616.98	1847.93	3	52.97	ISSKSPGHMVILDQTK						
521.59	1561.76	3	36.16	ITHSPTVSQVTER						
			44.57	ITHSPTVSQVTER	1	4	0	0	0	0
781.88	1561.74	2	44.57	ITHSPTVSQVTER						
			39.74	ITPPAAKPGSPQAK	1	10	0	0	0	0
728.86	1455.7	2	39.74	ITPPAAKPGSPQAK						
			35.37	IVSISALSTTEVAMHTSTSSSVTK	5	3	5	8	9	10
816.89	3263.54	4	35.37	IVSISALSTTEVAMHTSTSSSVTK						
			35.02	KAASPSPQSVR	1	4	0	0	0	0
611.28	1220.55	2	35.02	KAASPSPQSVR						
			42.61	KAASPSPQSVR	2	4	6	0	0	0
651.27	1300.52	2	42.61	KAASPSPQSVR						
			30.77	KADRDQSPFSK	1	7	0	0	0	0
700.82	1399.62	2	30.77	KADRDQSPFSK						
696.95	2087.83	3	32.95	KAEDSDSEPEPEDNVR						
523.22	2088.87	4	41.31	KAEDSDSEPEPEDNVR						
			74.73	KAEDSDSEPEPEDNVR	2	5	7	0	0	0
1044.91	2087.8	2	74.73	KAEDSDSEPEPEDNVR						
602.97	1805.89	3	33.59	KAEGEPQEESPLKSK						
			41.52	KAEGEPQEESPLKSK	1	10	0	0	0	0
903.95	1805.89	2	41.52	KAEGEPQEESPLKSK						
717.88	1433.74	2	44.71	KASGPPVSELITK						
			51.17	KASGPPVSELITK	1	3	0	0	0	0
478.93	1433.77	3	51.17	KASGPPVSELITK						
			38.96	KASGSENEGDYNPGRK	2	3	5	0	0	0
642.26	1923.75	3	38.96	KASGSENEGDYNPGRK						
			57.3	KDDDSDDESQSSHTGK	1	5	0	0	0	0
643.58	1927.73	3	57.3	KDDDSDDESQSSHTGK						
			29.15	KDDSDDDGGGWITPSNIK	1	4	0	0	0	0
695.31	2082.9	3	29.15	KDDSDDDGGGWITPSNIK						
1382.53	2763.04	2	26.56	KDEKKEESEESDDDMGFGLFD						
922.05	2763.12	3	33.9	KDEKKEESEESDDDMGFGLFD						
			36.89	KDEKKEESEESDDDMGFGLFD	2	8	11	0	0	0
922.05	2763.12	3	36.89	KDEKKEESEESDDDMGFGLFD						
			34.47	KDKSPVREPIDNLTPEER	1	4	0	0	0	0
572.79	2287.15	4	34.47	KDKSPVREPIDNLTPEER						
			26.57	KDPPPEPSPSK	2	8	10	0	0	0
690.31	1378.61	2	26.57	KDPPPEPSPSK						
451.19	1350.54	3	30.5	KDSASEEEAR						
636.26	1270.51	2	46.9	KDSASEEEAR						
			52.63	KDSASEEEAR	2	3	5	0	0	0
676.26	1350.5	2	52.63	KDSASEEEAR						
			54.99	KDSASEEEAR	1	3	0	0	0	0
424.51	1270.52	3	54.99	KDSASEEEAR						
			46.23	KDSDDEKSDR	1	3	0	0	0	0
679.78	1357.55	2	46.23	KDSDDEKSDR						
745.96	2234.85	3	29.19	KEESEESDDDMGFGLFD						

745.95	2234.82	3	45.27	KEESEESDDDMGFGLFD						
			67.59	KEESEESDDDMGFGLFD	2	4	7	0	0	0
1118.41	2234.81	2	67.59	KEESEESDDDMGFGLFD						
719.29	2154.85	3	70.55	KEESEESDDDMGFGLFD						
			71.72	KEESEESDDDMGFGLFD	1	7	0	0	0	0
1078.43	2154.85	2	71.72	KEESEESDDDMGFGLFD						
			25.04	KEESTAASETTEGSQGDSK	2	4	11	0	0	0
547.26	2185.02	4	25.04	KEESTAASETTEGSQGDSK						
592.99	2367.92	4	30.78	KESESEDSSDDEPLIKK						
			44.28	KESESEDSSDDEPLIKK	4	3	5	8	9	0
789.97	2366.9	3	44.28	KESESEDSSDDEPLIKK						
1075.93	2149.85	2	39.7	KETESEAEDNLDDLEK						
			67.63	KETESEAEDNLDDLEK	2	3	5	0	0	0
717.64	2149.9	3	67.63	KETESEAEDNLDDLEK						
			80.1	KETESEAEDNLDDLEK	1	5	0	0	0	0
690.98	2069.93	3	80.1	KETESEAEDNLDDLEK						
494.26	1479.76	3	30.25	KETPPPLVPPAAR						
			57.06	KETPPPLVPPAAR	1	3	0	0	0	0
740.89	1479.77	2	57.06	KETPPPLVPPAAR						
			27.95	KFDHESSPGTDEDKSG	3	6	7	10	0	0
687.26	2058.75	3	27.95	KFDHESSPGTDEDKSG						
534.5	2133.97	4	29.4	KFSKEEPVSSGPEEAVGK						
			60.66	KFSKEEPVSSGPEEAVGK	2	9	10	0	0	0
712.32	2133.95	3	60.66	KFSKEEPVSSGPEEAVGK						
			75.56	KFSKEEPVSSGPEEAVGK	3	3	9	10	0	0
739.31	2214.92	3	75.56	KFSKEEPVSSGPEEAVGK						
628.29	2509.12	4	31.11	KGAGDGSDEEVDGKADGAEAKPAE						
			66.61	KGAGDGSDEEVDGKADGAEAKPAE	1	7	0	0	0	0
837.05	2508.13	3	66.61	KGAGDGSDEEVDGKADGAEAKPAE						
			54.15	KGDRSPEPGQTWTR	1	5	0	0	0	0
579.61	1735.8	3	54.15	KGDRSPEPGQTWTR						
			26.28	KGLSSHAR	2	4	5	0	0	0
515.22	1028.43	2	26.28	KGLSSHAR						
			37.75	KGPGQPSSPQRLDR	1	8	0	0	0	0
544.25	1629.74	3	37.75	KGPGQPSSPQRLDR						
901.88	1801.75	2	38.37	KHSPSPPPPTPTESR						
			46.47	KHSPSPPPPTPTESR	2	3	5	0	0	0
601.6	1801.77	3	46.47	KHSPSPPPPTPTESR						
545.92	1634.75	3	48.46	KKEEPSQNDISPK						
			72.58	KKEEPSQNDISPK	1	11	0	0	0	0
818.39	1634.77	2	72.58	KKEEPSQNDISPK						
889.41	1776.81	2	25.85	KKEPAITSQNSPEAR						
			55.2	KKEPAITSQNSPEAR	1	11	0	0	0	0
593.3	1776.87	3	55.2	KKEPAITSQNSPEAR						
640.32	1278.64	2	27.67	KKSPIINESR						
			31.87	KKSPIINESR	1	3	0	0	0	0
427.22	1278.65	3	31.87	KKSPIINESR						
873.01	2616.02	3	35.33	KLEKEEEEGISQESSEEEQ						
846.35	2536.04	3	35.75	KLEKEEEEGISQESSEEEQ						
873.01	2616	3	37.06	KLEKEEEEGISQESSEEEQ						
846.36	2536.07	3	41.13	KLEKEEEEGISQESSEEEQ						
873.02	2616.02	3	43.67	KLEKEEEEGISQESSEEEQ						
846.36	2536.05	3	45.06	KLEKEEEEGISQESSEEEQ						
1309.01	2616.01	2	45.58	KLEKEEEEGISQESSEEEQ						
1269.03	2536.04	2	47.92	KLEKEEEEGISQESSEEEQ						
1269.02	2536.03	2	50.5	KLEKEEEEGISQESSEEEQ						
846.36	2536.06	3	50.73	KLEKEEEEGISQESSEEEQ						
873.01	2616.01	3	52.43	KLEKEEEEGISQESSEEEQ						
			53.96	KLEKEEEEGISQESSEEEQ	2	14	15	0	0	0
635.28	2537.08	4	53.96	KLEKEEEEGISQESSEEEQ						
			60.33	KLEKEEEEGISQESSEEEQ	3	11	14	15	0	0
1308.99	2615.97	2	60.33	KLEKEEEEGISQESSEEEQ						
			52.63	KLSGDQITLPTTVDYSSVPK	1	3	0	0	0	0
757.71	2270.12	3	52.63	KLSGDQITLPTTVDYSSVPK						
			28.02	KLSGDQPAAR	1	3	0	0	0	0
575.77	1149.52	2	28.02	KLSGDQPAAR						
			32.64	KLSVPTSDEEDEVPAPKPR	2	6	7	0	0	0
780.03	2337.07	3	32.64	KLSVPTSDEEDEVPAPKPR						
806.69	2417.03	3	44.88	KLSVPTSDEEDEVPAPKPR						
			52.28	KLSVPTSDEEDEVPAPKPR	3	3	6	7	0	0
807.02	2418.05	3	52.28	KLSVPTSDEEDEVPAPKPR						
			92.12	KMSGGSTMSSGGGNTNNSNSK	1	6	0	0	0	0
699.61	2095.81	3	92.12	KMSGGSTMSSGGGNTNNSNSK						
			28.05	KPEEESPRKDDAK	1	6	0	0	0	0
565.27	1692.78	3	28.05	KPEEESPRKDDAK						
			26.31	KPFKLSGLSFKR	1	9	0	0	0	0
501.24	1500.69	3	26.31	KPFKLSGLSFKR						
			45.11	KPGPPLSPEIRSPAGSPELR	3	7	12	16	0	0
592.78	2367.09	4	45.11	KPGPPLSPEIRSPAGSPELR						
			51.38	KPIETGSPK	1	7	0	0	0	0
532.76	1063.51	2	51.38	KPIETGSPK						
			39.67	KPPAPPSPVQSQSPSTNWSPAVPVKK	3	7	11	13	0	0

742.35	2965.37	4	39.67	KPPAPPSPVQSQSPSTNWSPAVPVKK						
			31.31	KPSKSPNTSRSK	3	3	5	8	0	0
524.57	1570.69	3	31.31	KPSKSPNTSRSK						
			35.95	KPSPSESPEPWKPFPAVSPEPR	2	3	5	0	0	0
666.31	2661.19	4	35.95	KPSPSESPEPWKPFPAVSPEPR						
			32.02	KPSTSDDSDSNFEK	4	3	4	5	8	0
649.55	1945.61	3	32.02	KPSTSDDSDSNFEK						
			28.94	KQPPVSPGTALVGSQKEPSEVPTPK	2	14	23	0	0	0
920.8	2759.39	3	28.94	KQPPVSPGTALVGSQKEPSEVPTPK						
550.96	1649.87	3	53.85	KQSLGELIGTLNAAK						
			67.77	KQSLGELIGTLNAAK	1	3	0	0	0	0
825.93	1649.85	2	67.77	KQSLGELIGTLNAAK						
			32.38	KRAPSPLPK	1	5	0	0	0	0
544.29	1086.57	2	32.38	KRAPSPLPK						
			42.28	KRESESESDETPPAAPQLIK	2	4	6	0	0	0
819.38	2455.11	3	42.28	KRESESESDETPPAAPQLIK						
			53.85	KRESESESDETPPAAPQLIK	3	4	6	8	0	0
846.04	2535.1	3	53.85	KRESESESDETPPAAPQLIK						
750.81	1499.6	2	50.28	KRETDDEGEDD						
750.81	1499.6	2	54.6	KRETDDEGEDD						
			55.31	KRETDDEGEDD	1	4	0	0	0	0
750.77	1499.52	2	55.31	KRETDDEGEDD						
			27.77	KRQSPEPSPVTLGR	1	4	0	0	0	0
553.96	1658.86	3	27.77	KRQSPEPSPVTLGR						
			45.04	KRSPSPSPTPEAK	2	3	5	0	0	0
785.34	1568.66	2	45.04	KRSPSPSPTPEAK						
820.67	2458.97	3	46.54	KSLDSDESEDEEDDYQQK						
			61.62	KSLDSDESEDEEDDYQQK	2	5	8	0	0	0
1230.47	2458.92	2	61.62	KSLDSDESEDEEDDYQQK						
			67.27	KSLDSDESEDEEDDYQQKR	2	5	8	0	0	0
872.69	2615.05	3	67.27	KSLDSDESEDEEDDYQQKR						
			58.78	KSLSDSESDDSK	1	4	0	0	0	0
724.31	1446.6	2	58.78	KSLSDSESDDSK						
			32.51	KSSSQPSPSDPK	1	7	0	0	0	0
676.79	1351.56	2	32.51	KSSSQPSPSDPK						
			33.86	KTSPASLDFPESQK	1	3	0	0	0	0
828.88	1655.74	2	33.86	KTSPASLDFPESQK						
603.77	2411.04	4	26.6	KTSSDDESEEDEDDLLQR						
			53.81	KTSSDDESEEDEDDLLQR	2	3	8	0	0	0
804.33	2409.97	3	53.81	KTSSDDESEEDEDDLLQR						
			62.83	KTSSDDESEEDEDDLLQR	3	3	4	8	0	0
830.98	2489.93	3	62.83	KTSSDDESEEDEDDLLQR						
426.23	850.44	2	27.6	KVAKSPK						
426.23	850.44	2	27.6	KVAKSPK						
			29.21	KVAKSPK	1	5	0	0	0	0
426.23	850.45	2	29.21	KVAKSPK						
426.23	850.45	2	29.21	KVAKSPK						
			48.26	KVMDSDEDDDY	1	5	0	0	0	0
755.29	1508.56	2	48.26	KVMDSDEDDDY						
			26.22	KVSEAHLPSGIHSALGTVSCGGDGRGER(	4	3	9	17	19	0
944.37	3773.47	4	26.22	KVSEAHLPSGIHSALGTVSCGGDGRGER(						
			25.12	KVSLGNGEMGVSAHLQPCKAGTTR	2	22	23	0	0	0
877.39	2629.14	3	25.12	KVSLGNGEMGVSAHLQPCKAGTTR						
			52.58	KVVEAVNSDSDSEFGIPK	2	8	10	0	0	0
717.66	2149.96	3	52.58	KVVEAVNSDSDSEFGIPK						
			49.18	KVVVSPTK	1	5	0	0	0	0
476.25	950.48	2	49.18	KVVVSPTK						
			47.52	KVVVSPTKK	1	5	0	0	0	0
540.29	1078.57	2	47.52	KVVVSPTKK						
			34.25	KWDGSEEDEDNSK	1	5	0	0	0	0
572.91	1715.7	3	34.25	KWDGSEEDEDNSK						
			35.77	KYDSDSDDD	2	4	6	0	0	0
652.2	1302.39	2	35.77	KYDSDSDDD						
			26.02	LCASSYGTSGIYEQYVGPGTRLTVT	5	4	5	8	12	15
823.67	3290.64	4	26.02	LCASSYGTSGIYEQYVGPGTRLTVT						
			28.12	LCTVAASQPRSPAPGGEGR	1	3	0	0	0	0
654.29	1959.83	3	28.12	LCTVAASQPRSPAPGGEGR						
578.27	1731.79	3	32.84	LDSQPQETSPELPR						
			42.99	LDSQPQETSPELPR	1	9	0	0	0	0
866.9	1731.79	2	42.99	LDSQPQETSPELPR						
			54.52	LEDSEVRSVASNQSEMEFSSLQDMPK	3	8	11	14	0	0
1094.77	3281.3	3	54.52	LEDSEVRSVASNQSEMEFSSLQDMPK						
			35.85	LELQGPRGSPNAR	1	9	0	0	0	0
751.87	1501.74	2	35.85	LELQGPRGSPNAR						
			39.48	LGAGGGSPEKSPSAQELK	1	7	0	0	0	0
612.31	1833.9	3	39.48	LGAGGGSPEKSPSAQELK						
			63.47	LGASNSPGQPNSVK	1	6	0	0	0	0
725.32	1448.63	2	63.47	LGASNSPGQPNSVK						
636.65	1906.93	3	50.45	LGGLRPESPESLTSVSR						
			51.22	LGGLRPESPESLTSVSR	1	8	0	0	0	0
636.32	1905.93	3	51.22	LGGLRPESPESLTSVSR						
			25.37	LGKYYVK	1	4	0	0	0	0

482.72	963.42	2	25.37	LGKYYVK						
			61.38	LGSFGSITR	1	3	0	0	0	0
516.25	1030.48	2	61.38	LGSFGSITR						
			45.16	LGSPKPER	1	3	0	0	0	0
496.24	990.46	2	45.16	LGSPKPER						
			51.09	LGVSVSPSR	1	6	0	0	0	0
498.24	994.47	2	51.09	LGVSVSPSR						
			25.31	LISLDDKTILSLAK	1	3	0	0	0	0
551.26	1650.75	3	25.31	LISLDDKTILSLAK						
565.63	1693.86	3	55.45	LKDLFDYSPPLHK						
			64.64	LKDLFDYSPPLHK	1	8	0	0	0	0
565.63	1693.85	3	64.64	LKDLFDYSPPLHK						
			30.69	LKKLSVPTSDEEDEVPAPKPR	3	5	8	9	0	0
665.81	2659.22	4	30.69	LKKLSVPTSDEEDEVPAPKPR						
605.78	2419.08	4	33.88	LKKLSVPTSDEEDEVPAPKPR						
656.61	1966.8	3	62.93	LLEDSEESSEETVSR						
			75.34	LLEDSEESSEETVSR	2	5	8	0	0	0
984.4	1966.78	2	75.34	LLEDSEESSEETVSR						
			28.42	LNQPGTPTR	1	6	0	0	0	0
539.25	1076.48	2	28.42	LNQPGTPTR						
			27.54	LNSNAVSIELTQISK	1	14	0	0	0	0
862.94	1723.87	2	27.54	LNSNAVSIELTQISK						
585.08	2336.29	4	27.09	LPGDKGLVLMSRAKHHAISAK						
			28.54	LPLVPESPRR	1	7	0	0	0	0
636.33	1270.65	2	28.54	LPLVPESPRR						
			36.54	LQAKESPQR	1	6	0	0	0	0
582.77	1163.53	2	36.54	LQAKESPQR						
			26.04	LQAKESPQRK	1	6	0	0	0	0
646.81	1291.61	2	26.04	LQAKESPQRK						
			27.23	LQTPNTFPK	2	3	6	0	0	0
610.27	1218.52	2	27.23	LQTPNTFPK						
			27.92	LREQGTESR	1	8	0	0	0	0
400.18	1197.51	3	27.92	LREQGTESR						
400.18	1197.51	3	27.92	LREQGTESR						
			39.53	LREQGTESRSSTPLPTISSSAENTR	2	8	16	0	0	0
731.09	2920.32	4	39.53	LREQGTESRSSTPLPTISSSAENTR						
472.55	1414.64	3	35.27	LRLSPSPTSQR						
			52.9	LRLSPSPTSQR	1	4	0	0	0	0
668.34	1334.66	2	52.9	LRLSPSPTSQR						
			54.66	LRLSPSPTSQR	2	4	6	0	0	0
708.32	1414.63	2	54.66	LRLSPSPTSQR						
			25.69	LSALTQPPSVTGS	3	2	5	9	0	0
504.22	1509.64	3	25.69	LSALTQPPSVTGS						
			38.2	LSGLSFKR	1	5	0	0	0	0
501.25	1000.49	2	38.2	LSGLSFKR						
			26.92	LSKYNTEEFITVYPTDPPK	4	2	4	13	15	0
655	2615.99	4	26.92	LSKYNTEEFITVYPTDPPK						
			27.23	LSLQDGTLKK	1	7	0	0	0	0
605.76	1209.51	2	27.23	LSLQDGTLKK						
			48.52	LSLSPLR	1	4	0	0	0	0
440.24	878.47	2	48.52	LSLSPLR						
			28.7	LSPSPSSR	1	4	0	0	0	0
462.7	923.38	2	28.7	LSPSPSSR						
			42.32	LSPSPTSQR	1	2	0	0	0	0
533.74	1065.47	2	42.32	LSPSPTSQR						
			40.31	LSSGFDDIDLPSAVK	1	2	0	0	0	0
567.29	1698.84	3	40.31	LSSGFDDIDLPSAVK						
681.93	2042.76	3	25.85	LSSLRASTSKSESSQK						
			34.22	LSSLRASTSKSESSQK	4	3	7	13	14	0
1022.39	2042.77	2	34.22	LSSLRASTSKSESSQK						
			38.28	LSSLRASTSKSESSQK	2	3	8	0	0	0
628.6	1882.78	3	38.28	LSSLRASTSKSESSQK						
			28.58	LSVPTSDEEDEVPAPKPR	1	2	0	0	0	0
533.27	2129.05	4	28.58	LSVPTSDEEDEVPAPKPR						
737.33	2208.98	3	37.07	LSVPTSDEEDEVPAPKPR						
			41.13	LSVPTSDEEDEVPAPKPR	2	2	6	0	0	0
553.51	2210.02	4	41.13	LSVPTSDEEDEVPAPKPR						
			60.61	LTFDSSFSPNTGKK	1	8	0	0	0	0
546.26	1635.75	3	60.61	LTFDSSFSPNTGKK						
821.6	3282.36	4	30.87	LVEDERSDREETESSEGEEAAAGGGAK						
			61.42	LVEDERSDREETESSEGEEAAAGGGAK	4	7	12	14	15	0
1095.07	3282.19	3	61.42	LVEDERSDREETESSEGEEAAAGGGAK						
			25.71	LVGATATSSPPPK	1	5	0	0	0	0
659.8	1317.58	2	25.71	LVGATATSSPPPK						
			35.75	MAPPVDDLSPK	1	9	0	0	0	0
646.3	1290.59	2	35.75	MAPPVDDLSPK						
			28.99	MEESFSSK	1	4	0	0	0	0
533.72	1065.43	2	28.99	MEESFSSK						
			28.31	MEREDSSEEEEEEIDDEEIER	2	6	7	0	0	0
1000.05	2997.14	3	28.31	MEREDSSEEEEEEIDDEEIER						
955.73	1909.45	2	27.85	MGPLHKSPAKNISVWCK						
			44.79	MIFEGPNKLSPR	1	10	0	0	0	0

499.59	1495.75	3	44.79	MIFEGPNKLSPR						
			64.74	MLAESDESGDEESVSQTDKTELQNTLR	2	5	8	0	0	0
1100.47	3298.38	3	64.74	MLAESDESGDEESVSQTDKTELQNTLR						
			49.28	MLEEKSPEKVK	1	6	0	0	0	0
485.25	1452.73	3	49.28	MLEEKSPEKVK						
			26.8	MLQERKAAKEAAAATS	2	15	16	0	0	0
939.12	1876.22	2	26.8	MLQERKAAKEAAAATS						
			50.26	MPQDGSDDEDEEWPTLEK	1	6	0	0	0	0
1163.99	2325.96	2	50.26	MPQDGSDDEDEEWPTLEK						
			30.57	MQASIEK	1	4	0	0	0	0
457.7	913.39	2	30.57	MQASIEK						
			42.34	MQASIEKGGSLPK	1	4	0	0	0	0
727.36	1452.7	2	42.34	MQASIEKGGSLPK						
			34.86	MRIPNYQLSPTKLPSINK	1	11	0	0	0	0
549.29	2193.11	4	34.86	MRIPNYQLSPTKLPSINK						
			32.47	MSMTGAGKSPPSVQSLAMR	1	9	0	0	0	0
677.31	2028.9	3	32.47	MSMTGAGKSPPSVQSLAMR						
			56.39	MSPSKSPFLPSMK	1	2	0	0	0	0
510.9	1529.69	3	56.39	MSPSKSPFLPSMK						
			34.32	MYPPRSPK	1	6	0	0	0	0
535.24	1068.46	2	34.32	MYPPRSPK						
			29.42	NAEAVLQSPGLSGK	1	8	0	0	0	0
739.3	1476.58	2	29.42	NAEAVLQSPGLSGK						
568.58	1702.73	3	63.9	NDKSEEEQSSSSVK						
			73.9	NDKSEEEQSSSSVK	1	4	0	0	0	0
852.37	1702.73	2	73.9	NDKSEEEQSSSSVK						
			27.43	NDKSEEEQSSSSVKKDETNVK	2	4	9	0	0	0
657.55	2626.17	4	27.43	NDKSEEEQSSSSVKKDETNVK						
			66.46	NEEDEGHSNSSPR	1	11	0	0	0	0
804.3	1606.59	2	66.46	NEEDEGHSNSSPR						
			43.13	NESEDNKFSDDSDDDFVQPR	3	3	9	12	0	0
909	2723.98	3	43.13	NESEDNKFSDDSDDDFVQPR						
			55.28	NFSDNQLQEGK	1	3	0	0	0	0
701.31	1400.6	2	55.28	NFSDNQLQEGK						
			30.02	NGSGPFLGNIPK	1	3	0	0	0	0
647.3	1292.59	2	30.02	NGSGPFLGNIPK						
			30.51	NHSGSRTPPVALNSSR	3	3	5	7	0	0
645.27	1932.78	3	30.51	NHSGSRTPPVALNSSR						
			33.86	NHSGSRTPPVALNSSR	2	3	5	0	0	0
618.6	1852.79	3	33.86	NHSGSRTPPVALNSSR						
			69.55	NKPGPNIESGNEDDDASFK	1	9	0	0	0	0
733.32	2196.95	3	69.55	NKPGPNIESGNEDDDASFK						
			32.86	NLSFEIK	1	3	0	0	0	0
479.73	957.45	2	32.86	NLSFEIK						
			46.18	NLSPGAVESDVR	1	3	0	0	0	0
683.31	1364.62	2	46.18	NLSPGAVESDVR						
596.89	1787.66	3	46.26	NQGGYGGSSSSSSYGSGR						
			102.75	NQGGYGGSSSSSSYGSGR	1	16	0	0	0	0
894.82	1787.62	2	102.75	NQGGYGGSSSSSSYGSGR						
			40.67	NRSAEEGELAESK	1	3	0	0	0	0
523.91	1568.72	3	40.67	NRSAEEGELAESK						
			42.77	NSATFKSFEDR	1	7	0	0	0	0
475.22	1422.62	3	42.77	NSATFKSFEDR						
			40.69	NSLETLLYKPVDR	1	8	0	0	0	0
557.28	1668.83	3	40.69	NSLETLLYKPVDR						
			36.29	NTEESSSPVRK	1	7	0	0	0	0
678.3	1354.58	2	36.29	NTEESSSPVRK						
			30.86	NTPSQHSHSIQHSPER	1	13	0	0	0	0
650.6	1948.79	3	30.86	NTPSQHSHSIQHSPER						
			35.65	NTSAEKELSSPISPK	2	10	13	0	0	0
597.26	1788.76	3	35.65	NTSAEKELSSPISPK						
			39.86	NVSESPNRKNEK	2	3	5	0	0	0
802.33	1602.65	2	39.86	NVSESPNRKNEK						
			28.99	NVSSFQLKLAAKAPK	1	3	0	0	0	0
566.27	1695.78	3	28.99	NVSSFQLKLAAKAPK						
621.94	1862.79	3	46.38	PGPTPSGTNVGSSGRSPSK						
			53.56	PGPTPSGTNVGSSGRSPSK	1	12	0	0	0	0
932.41	1862.81	2	53.56	PGPTPSGTNVGSSGRSPSK						
			44.4	QEKPAEKPAETPVATSPTATDSTSGDSSF	1	11	0	0	0	0
778.37	3109.46	4	44.4	QEKPAEKPAETPVATSPTATDSTSGDSSF						
			49.04	QELGSPEER	1	5	0	0	0	0
590.76	1179.52	2	49.04	QELGSPEER						
			75.56	QGSLAMEELK	1	3	0	0	0	0
614.28	1226.55	2	75.56	QGSLAMEELK						
			92.33	QGSPVAAGAPAK	1	3	0	0	0	0
574.26	1146.51	2	92.33	QGSPVAAGAPAK						
			32.48	QHYQKETESAPGSPR	2	9	13	0	0	0
639.59	1915.73	3	32.48	QHYQKETESAPGSPR						
			50.78	QISQDVKLEPDILLR	1	3	0	0	0	0
635.01	1902	3	50.78	QISQDVKLEPDILLR						
			46.32	QKSDAEEDGGTVSQEEEDRKPK	2	3	13	0	0	0
916.75	2747.22	3	46.32	QKSDAEEDGGTVSQEEEDRKPK						

			52.32	QLSSGVSEIR	1	3	0	0	0	0
592.28	1182.55	2	52.32	QLSSGVSEIR						
			25.55	QNGSNDSDRYSDNEEDSKIELK	2	4	7	0	0	0
939.08	2814.22	3	25.55	QNGSNDSDRYSDNEEDSKIELK						
			38.32	QPEYSPESPR	1	8	0	0	0	0
656.28	1310.54	2	38.32	QPEYSPESPR						
918.97	1835.93	2	26.83	QPLLLSEDEEDTKR						
			48.67	QPLLLSEDEEDTKR	1	6	0	0	0	0
612.97	1835.9	3	48.67	QPLLLSEDEEDTKR						
			37.34	QPTPPFFGR	1	3	0	0	0	0
570.76	1139.51	2	37.34	QPTPPFFGR						
			29.62	QRPDLGSAQK	1	7	0	0	0	0
603.74	1205.47	2	29.62	QRPDLGSAQK						
			51.95	QRSPSPAPAPAPAAAAGPPTR	2	3	5	0	0	0
714.67	2140.99	3	51.95	QRSPSPAPAPAPAAAAGPPTR						
			25.82	QSVVQSGRSEAGVDRISSQVVDPK	3	2	9	18	0	0
941.77	2822.28	3	25.82	QSVVQSGRSEAGVDRISSQVVDPK						
			25.81	QTAAQVTLKAISAHFDDSSASSLK	4	7	18	19	21	0
710.28	2837.11	4	25.81	QTAAQVTLKAISAHFDDSSASSLK						
			28.08	RACSETLAESR	3	4	6	10	0	0
752.85	1503.69	2	28.08	RACSETLAESR						
			51.52	RADDFPVRDDPSDVTDEDEGPAEPPPPP	2	12	15	0	0	0
869.64	3474.52	4	51.52	RADDFPVRDDPSDVTDEDEGPAEPPPPP						
			29.66	RAGDLLEDSPKRPK	1	9	0	0	0	0
430.23	1716.9	4	29.66	RAGDLLEDSPKRPK						
			27.4	RAPSPLPK	1	4	0	0	0	0
480.25	958.48	2	27.4	RAPSPLPK						
			36.94	RASEDTTSGSPPKK	1	10	0	0	0	0
528.23	1581.67	3	36.94	RASEDTTSGSPPKK						
			39.78	RASGQAFELILSPR	2	3	12	0	0	0
578.28	1731.81	3	39.78	RASGQAFELILSPR						
			49.62	RASGQAFELILSPR	1	12	0	0	0	0
551.62	1651.83	3	49.62	RASGQAFELILSPR						
			33.29	RASPSKPASAPASR	1	3	0	0	0	0
492.89	1475.65	3	33.29	RASPSKPASAPASR						
			30.27	RASSENER	1	3	0	0	0	0
535.76	1069.5	2	25.71	RASSPFRR						
			35.02	RDSDSEGD	2	3	5	0	0	0
555.67	1109.32	2	35.02	RDSDSEGD						
			32.38	RESGSSLWGQGTLVTVSSASTK	5	3	5	12	18	20
687.29	2745.14	4	32.38	RESGSSLWGQGTLVTVSSASTK						
705.3	1408.59	2	26.33	RESPSPAPKPR						
			28.74	RESPSPAPKPR	2	3	5	0	0	0
470.53	1408.57	3	28.74	RESPSPAPKPR						
			31.15	RESPSPAPKPR	1	3	0	0	0	0
665.32	1328.62	2	31.15	RESPSPAPKPR						
			26.43	RESRQESDPEDDDVKKPALQSSVVATSK	2	7	21	0	0	0
844.41	3373.61	4	26.43	RESRQESDPEDDDVKKPALQSSVVATSK						
			64.69	RGDSESEEDEQDSEEVR	2	4	6	0	0	0
765.97	2294.88	3	64.69	RGDSESEEDEQDSEEVR						
455.55	1363.63	3	33.89	RGNDPLTSSPGR						
			34.01	RGNDPLTSSPGR	1	9	0	0	0	0
682.81	1363.61	2	34.01	RGNDPLTSSPGR						
			25.41	RGSLSNAGDPEIVK	1	3	0	0	0	0
782.88	1563.74	2	25.41	RGSLSNAGDPEIVK						
441.86	1322.57	3	48.57	RHSEVETDSK						
			53.51	RHSEVETDSK	1	3	0	0	0	0
662.29	1322.56	2	53.51	RHSEVETDSK						
558.52	1672.55	3	25.42	RHSHSHSPMSTR						
			27.63	RHSHSHSPMSTR	3	3	5	7	0	0
837.26	1672.51	2	27.63	RHSHSHSPMSTR						
			35.31	RIDFIPVSPAPSPTR	2	8	12	0	0	0
614.64	1840.88	3	35.31	RIDFIPVSPAPSPTR						
650.31	1298.62	2	32.07	RIDISPSTFR						
			39.16	RIDISPSTFR	1	5	0	0	0	0
433.89	1298.66	3	39.16	RIDISPSTFR						
			45.35	RIDISPSTLR	1	5	0	0	0	0
633.32	1264.62	2	45.35	RIDISPSTLR						
			30.59	RIDISPSTLRK	1	5	0	0	0	0
465.26	1392.74	3	30.59	RIDISPSTLRK						
			34.78	RKAEDSDSEPEPEDNVR	2	6	8	0	0	0
749.32	2244.94	3	34.78	RKAEDSDSEPEPEDNVR						
			28.31	RKAISTCASHFTVVLIFYGSILSMYVQLKK	1	6	0	0	0	0
1166.4	3496.18	3	28.31	RKAISTCASHFTVVLIFYGSILSMYVQLKK						
466.55	1396.62	3	39.45	RKDSAQDDQAK						
			48.83	RKDSAQDDQAK	1	4	0	0	0	0
699.31	1396.6	2	48.83	RKDSAQDDQAK						
			53.93	RKPSNVSEKEK	1	4	0	0	0	0
712.35	1422.69	2	53.93	RKPSNVSEKEK						
			33.17	RKPSTSDDSDSNFEK	4	4	5	6	9	0
701.58	2101.72	3	33.17	RKPSTSDDSDSNFEK						
552.91	1655.71	3	26.88	RKRETDDEGEDD						

			31.53	RKRETDDEGEDD	1	5	0	0	0	0
552.91	1655.71	3	31.53	RKRETDDEGEDD						
			31.69	RKSLSDSESDDSK	1	5	0	0	0	0
535.25	1602.72	3	31.69	RKSLSDSESDDSK						
			38.98	RKSLSDSESDDSKSK	3	3	5	7	0	0
660.26	1977.76	3	38.98	RKSLSDSESDDSKSK						
			31.67	RLDSSGER	1	4	0	0	0	0
521.24	1040.47	2	31.67	RLDSSGER						
			25.33	RLFLGPYKGRSTELIPR	3	7	11	12	0	0
568.61	2270.43	4	25.33	RLFLGPYKGRSTELIPR						
			28.17	RLLLASSSPASSIR	4	6	7	8	11	0
597.8	1790.39	3	28.17	RLLLASSSPASSIR						
			38.8	RLSLPGQLGALTSQPLHR	1	3	0	0	0	0
680.03	2037.06	3	38.8	RLSLPGQLGALTSQPLHR						
441.18	1320.53	3	28.41	RLSPSASPPR						
414.52	1240.53	3	31.48	RLSPSASPPR						
			39.15	RLSPSASPPR	2	3	7	0	0	0
621.27	1240.52	2	39.15	RLSPSASPPR						
			50.52	RLSPSASPPR	3	3	5	7	0	0
661.25	1320.48	2	50.52	RLSPSASPPR						
			45.01	RLSQPESAEK	1	3	0	0	0	0
633.8	1265.58	2	45.01	RLSQPESAEK						
			74.8	RLSSLRASTSK	2	3	4	0	0	0
690.32	1378.62	2	74.8	RLSSLRASTSK						
			30.27	RLSSLRASTSKSESSQK	2	4	9	0	0	0
510.74	2038.93	4	30.27	RLSSLRASTSKSESSQK						
735.3	2202.86	3	25.3	RNKIGDAIIGVDILHNKDR						
			87.89	RNSSEASSGDFLDLK	1	3	0	0	0	0
587.93	1760.77	3	87.89	RNSSEASSGDFLDLK						
			31.23	RPAEATSSPTSPERPR	2	10	11	0	0	0
486.22	1940.83	4	31.23	RPAEATSSPTSPERPR						
757.85	1513.68	2	27.57	RPEGPGAQAPSSPR						
			56.24	RPEGPGAQAPSSPR	1	11	0	0	0	0
505.56	1513.66	3	56.24	RPEGPGAQAPSSPR						
582.27	2325.06	4	31.6	RPHTPTPGIYMGRPTYGSSR						
			35.38	RPHTPTPGIYMGRPTYGSSR	1	4	0	0	0	0
582.27	2325.06	4	35.38	RPHTPTPGIYMGRPTYGSSR						
			25.61	RPLESGIEGLKDNLLASGTSSLTATK	4	5	19	23	25	0
1012.06	3033.16	3	25.61	RPLESGIEGLKDNLLASGTSSLTATK						
			52.15	RPMSSPEMK	1	4	0	0	0	0
585.75	1169.49	2	52.15	RPMSSPEMK						
			34.29	RPPSPDVIVLSDNEQPSSPR	3	4	11	18	0	0
829.36	2485.07	3	34.29	RPPSPDVIVLSDNEQPSSPR						
			30.63	RQVSASELHTSGILGPETLR	1	4	0	0	0	0
569.3	2273.17	4	30.63	RQVSASELHTSGILGPETLR						
596.29	2381.12	4	25.47	RRAQGDRGSPATAFPVTCSHLK						
			32.97	RRGSSGSVDETLFALPAASEPVIR	2	4	7	0	0	0
683.58	2730.3	4	32.97	RRGSSGSVDETLFALPAASEPVIR						
			25.04	RRHSHSHSPMSTR	3	4	6	11	0	0
610.55	1828.64	3	25.04	RRHSHSHSPMSTR						
424.54	1270.58	3	25.69	RRPSPQPSPR						
			26.54	RRPSPQPSPR	1	4	0	0	0	0
636.3	1270.59	2	26.54	RRPSPQPSPR						
439.24	1314.7	3	31.28	RRSPPADAIPK						
			33.84	RRSPPADAIPK	1	3	0	0	0	0
439.24	1314.69	3	33.84	RRSPPADAIPK						
696.31	1390.61	2	32.51	RRSPSPAPPPR						
			33.79	RRSPSPAPPPR	2	3	5	0	0	0
464.54	1390.59	3	33.79	RRSPSPAPPPR						
			32.35	RRSPSPTPTPGPSR	2	3	5	0	0	0
556.24	1665.71	3	32.35	RRSPSPTPTPGPSR						
			29.73	RRSPSPYYSR	2	3	7	0	0	0
721.75	1441.49	2	29.73	RRSPSPYYSR						
721.75	1441.49	2	29.73	RRSPSPYYSR						
			56.87	RSASPDDDLGSSNWEAADLGNEER	1	11	0	0	0	0
928.74	2783.2	3	56.87	RSASPDDDLGSSNWEAADLGNEER						
			27.57	RSKSKSSSVSR	5	2	4	6	8	10
406.2	1620.77	4	27.57	RSKSKSSSVSR						
578.21	1731.62	3	34.34	RSPSVSSPEPAEK						
			39.17	RSPSVSSPEPAEK	4	2	4	6	7	0
866.79	1731.58	2	39.17	RSPSVSSPEPAEK						
640.77	1279.52	2	39.86	RSSSFGNFDR						
			42.52	RSSSFGNFDR	1	2	0	0	0	0
427.52	1279.54	3	42.52	RSSSFGNFDR						
			59.37	RSTQGVTLTDLKEAEK	1	3	0	0	0	0
			33.41	RSVENNMPILSPHPPVGPK	1	2	0	0	0	0
726.32	2175.93	3	33.41	RSVENNMPILSPHPPVGPK						
			35.17	RTSNERPGSGQGQGR	1	3	0	0	0	0
565.58	1693.72	3	35.17	RTSNERPGSGQGQGR						
			35.77	RTSPQVLGSILK	1	3	0	0	0	0
464.92	1391.75	3	35.77	RTSPQVLGSILK						
			34.17	RTTSSSGVSPR	2	2	5	0	0	0

			41.75	RVPSPTPAPK	1	4	0	0	0	0
572.28	1142.55	2	41.75	RVPSPTPAPK						
			27.13	RVSPLNLSSVTP	1	3	0	0	0	0
682.34	1362.66	2	27.13	RVSPLNLSSVTP						
			36.08	RVSSSRSVSGSPEPAAK	4	3	7	9	11	0
683.93	2048.76	3	36.08	RVSSSRSVSGSPEPAAK						
			42.75	RYPSSISSSPQK	1	9	0	0	0	0
715.82	1429.63	2	42.75	RYPSSISSSPQK						
			44.23	RYPSSISSSPQKDLTQAK	1	8	0	0	0	0
701.03	2100.05	3	44.23	RYPSSISSSPQKDLTQAK						
			30.65	RYSPSPPPK	2	3	5	0	0	0
401.49	1201.46	3	30.65	RYSPSPPPK						
			33.56	RYSPSPPPKRR	2	3	5	0	0	0
505.56	1513.65	3	33.56	RYSPSPPPKRR						
			70.13	SAGEEEDGPVLTDEQK	1	1	0	0	0	0
941.41	1880.8	2	70.13	SAGEEEDGPVLTDEQK						
			32.17	SAHVTVSGGTPK	2	5	7	0	0	0
			28.43	SAPASPTHPGLMSPR	1	7	0	0	0	0
534.26	1599.75	3	28.43	SAPASPTHPGLMSPR						
408.18	1221.51	3	30.55	SASASHQADIK						
			54.97	SASASHQADIK	1	3	0	0	0	0
611.76	1221.51	2	54.97	SASASHQADIK						
			41.05	SASEPSLHR	1	3	0	0	0	0
546.22	1090.43	2	41.05	SASEPSLHR						
			40.78	SASEPSLNR	1	3	0	0	0	0
534.74	1067.47	2	40.78	SASEPSLNR						
			123.93	SASPDDDLGSSNWEAADLGNEER	1	3	0	0	0	0
1314.03	2626.04	2	123.93	SASPDDDLGSSNWEAADLGNEER						
			33.55	SASQSSLDKLDQELKEQQK	2	3	5	0	0	0
598.79	2391.14	4	33.55	SASQSSLDKLDQELKEQQK						
			31.82	SASSGAEGDVSSEREP	1	4	0	0	0	0
857.93	1713.85	2	31.82	SASSGAEGDVSSEREP						
458.18	1371.53	3	25.49	SATRPSPSPER						
			32.61	SATRPSPSPER	2	6	8	0	0	0
686.78	1371.54	2	32.61	SATRPSPSPER						
			67.38	SDAGLESDTAMK	1	7	0	0	0	0
680.79	1359.57	2	67.38	SDAGLESDTAMK						
			47.42	SDKSPDLAPTPAPQSTPR	1	4	0	0	0	0
662.99	1985.95	3	47.42	SDKSPDLAPTPAPQSTPR						
			56.61	SDSRAQAVSEDAGGNEGR	1	1	0	0	0	0
652.95	1955.83	3	56.61	SDSRAQAVSEDAGGNEGR						
			25.3	SEDARSSPSQR	1	6	0	0	0	0
447.85	1340.54	3	25.3	SEDARSSPSQR						
			33.91	SEDESETEDEEEKSQEDQEQKR	3	1	7	14	0	0
777.3	3105.16	4	33.91	SEDESETEDEEEKSQEDQEQKR						
			29.92	SEDSIAGSGVEHSTPDTEPGKEESWVSIK	5	1	13	14	17	24
945.51	3778.01	4	29.92	SEDSIAGSGVEHSTPDTEPGKEESWVSIK						
			25.46	SEDTAVYYCARGKGEFEGMDVWGQGTT	5	1	4	26	31	32
979.37	3913.47	4	25.46	SEDTAVYYCARGKGEFEGMDVWGQGTT						
			27.91	SESPKELKQLR	1	1	0	0	0	0
			41.87	SESPKELKQLRK	1	3	0	0	0	0
479.23	1434.68	3	45.39	SESPKEPEQLR						
			46.42	SESPKEPEQLR	1	3	0	0	0	0
718.35	1434.68	2	46.42	SESPKEPEQLR						
521.93	1562.76	3	46.98	SESPKEPEQLRK						
			55.07	SESPKEPEQLRK	1	1	0	0	0	0
521.92	1562.74	3	55.07	SESPKEPEQLRK						
			56.94	SETAPAETATPAPVEKSPAK	1	17	0	0	0	0
706.69	2117.04	3	56.94	SETAPAETATPAPVEKSPAK						
			34.17	SETSWESPKQIK	1	7	0	0	0	0
514.57	1540.68	3	34.17	SETSWESPKQIK						
			33.22	SFGSPNRAYTHQVVTR	2	4	10	0	0	0
665.3	1992.87	3	33.22	SFGSPNRAYTHQVVTR						
			34.14	SFLSEPSSPGR	1	8	0	0	0	0
636.28	1270.54	2	34.14	SFLSEPSSPGR						
			29.2	SFSKEELMSSDLEETAGSTSIPK	2	9	10	0	0	0
680.31	2717.2	4	29.2	SFSKEELMSSDLEETAGSTSIPK						
416.2	1245.57	3	34.66	SFSKEVEER						
416.2	1245.57	3	46.66	SFSKEVEER						
			47.02	SFSKEVEER	1	3	0	0	0	0
623.78	1245.55	2	47.02	SFSKEVEER						
			43.32	SFSMQDLR	1	3	0	0	0	0
546.23	1090.45	2	43.32	SFSMQDLR						
			34.97	SFSPTMK	1	3	0	0	0	0
446.19	890.36	2	34.97	SFSPTMK						
			65.09	SFSSPENFQR	1	3	0	0	0	0
653.76	1305.51	2	65.09	SFSSPENFQR						
			27.74	SFSSQRPVDR	1	3	0	0	0	0
429.54	1285.59	3	27.74	SFSSQRPVDR						
			36.75	SGAPSGNISQR	1	1	0	0	0	0
583.78	1165.55	2	36.75	SGAPSGNISQR						
			36.04	SGAQASSTPLSPTR	1	11	0	0	0	0

727.32	1452.63	2	36.04	SGAQASSTPLSPTR						
			48.84	SGMSPEQSR	1	4	0	0	0	0
543.69	1085.36	2	48.84	SGMSPEQSR						
			32.19	SGPKPFSAPKPQTSPSPK	2	14	16	0	0	0
671.65	2011.93	3	32.19	SGPKPFSAPKPQTSPSPK						
966.48	1930.95	2	38.66	SGPKPFSAPKPQTSPSPK						
			45.36	SGPKPFSAPKPQTSPSPK	1	14	0	0	0	0
644.65	1930.93	3	45.36	SGPKPFSAPKPQTSPSPK						
			28.76	SGPKPFSAPKPQTSPSPKR	2	14	16	0	0	0
723.34	2166.99	3	28.76	SGPKPFSAPKPQTSPSPKR						
746.81	1491.61	2	48.11	SGSMDPSGAHPSVR						
			62.52	SGSMDPSGAHPSVR	1	3	0	0	0	0
498.21	1491.6	3	62.52	SGSMDPSGAHPSVR						
496.88	1487.61	3	35.14	SGSSPEVKDKPR						
			42.52	SGSSPEVKDKPR	2	3	4	0	0	0
744.82	1487.63	2	42.52	SGSSPEVKDKPR						
			30.99	SGSSSPDSEITELKFPSINHD	2	4	5	0	0	0
826.34	2476.01	3	30.99	SGSSSPDSEITELKFPSINHD						
600.03	2396.09	4	38.85	SGSSSPDSEITELKFPSINHD						
			60.51	SGSSSPDSEITELKFPSINHD	1	5	0	0	0	0
799.7	2396.07	3	60.51	SGSSSPDSEITELKFPSINHD						
			29.53	SGTGSGGSTPHISGPGPGRPSSKEGR	3	3	13	22	0	0
669.28	2673.09	4	29.53	SGTGSGGSTPHISGPGPGRPSSKEGR						
			44.03	SGYHDDSDEDLLE	1	7	0	0	0	0
836.83	1671.64	2	44.03	SGYHDDSDEDLLE						
			28.47	SHLGEVSITGK	2	7	9	0	0	0
658.3	1314.59	2	28.47	SHLGEVSITGK						
686.96	2057.87	3	26.71	SHSPSSPDPDTPSPVGDSR						
			27.9	SHSPSSPDPDTPSPVGDSR	1	3	0	0	0	0
686.3	2055.86	3	27.9	SHSPSSPDPDTPSPVGDSR						
			27.31	SIEGCCICRAKSSSSRFTDSK	5	1	12	13	18	20
677.32	2705.24	4	27.31	SIEGCCICRAKSSSSRFTDSK						
			36.99	SILPYPVSPK	1	8	0	0	0	0
597.82	1193.62	2	36.99	SILPYPVSPK						
			42.48	SIMVQSPEK	1	6	0	0	0	0
563.77	1125.53	2	42.48	SIMVQSPEK						
			34.76	SIRDTPAK	1	5	0	0	0	0
498.23	994.45	2	34.76	SIRDTPAK						
			29.03	SISESSRSGKR	2	3	6	0	0	0
691.29	1380.56	2	29.03	SISESSRSGKR						
555.28	1662.82	3	44.45	SKESVPEFPLSPPK						
			62.86	SKESVPEFPLSPPK	1	11	0	0	0	0
832.41	1662.8	2	62.86	SKESVPEFPLSPPK						
			72.58	SKFSPQKEASPAAK	1	1	0	0	0	0
528.6	1582.76	3	72.58	SKFSPQKEASPAAK						
			36.96	SKSHESQLGNR	1	3	0	0	0	0
675.79	1349.57	2	36.96	SKSHESQLGNR						
			25.49	SKSPSPPRLTEDR	2	1	5	0	0	0
836.38	1670.75	2	25.49	SKSPSPPRLTEDR						
			38.07	SKTPPKSYSTAR	1	3	0	0	0	0
708.83	1415.65	2	38.07	SKTPPKSYSTAR						
			26.29	SLAMEMVLTGDRISAQDAK	3	1	9	14	0	0
777.99	2330.94	3	26.29	SLAMEMVLTGDRISAQDAK						
1166.4	2330.79	2	63.74	SLDSDESEDEEDDYQQK						
777.96	2330.85	3	63.74	SLDSDESEDEEDDYQQK						
			64.58	SLDSDESEDEEDDYQQK	2	4	7	0	0	0
1166.43	2330.84	2	64.58	SLDSDESEDEEDDYQQK						
829.99	2486.94	3	57.09	SLDSDESEDEEDDYQQKR						
			71.3	SLDSDESEDEEDDYQQKR	2	4	7	0	0	0
1244.48	2486.94	2	71.3	SLDSDESEDEEDDYQQKR						
			37.08	SLGVLPFTLNSGSPEK	1	13	0	0	0	0
876.95	1751.89	2	37.08	SLGVLPFTLNSGSPEK						
785.35	1568.69	2	37.04	SLPTTVPESPNYR						
			40.43	SLPTTVPESPNYR	1	9	0	0	0	0
784.87	1567.72	2	40.43	SLPTTVPESPNYR						
			27.12	SLQSALDVSPK	2	1	4	0	0	0
444.87	1331.6	3	27.12	SLQSALDVSPK						
512.21	1533.62	3	59.07	SLSDSESDDSKSK						
			65.58	SLSDSESDDSKSK	1	3	0	0	0	0
767.82	1533.63	2	65.58	SLSDSESDDSKSK						
			52.5	SLSESSVIMDR	1	1	0	0	0	0
673.29	1344.57	2	52.5	SLSESSVIMDR						
			36.74	SLSPDEER	1	3	0	0	0	0
534.74	1067.47	2	36.74	SLSPDEER						
			53.33	SLSPGGAALGYR	1	1	0	0	0	0
621.8	1241.58	2	53.33	SLSPGGAALGYR						
			39.82	SLSPSHLTEDR	1	3	0	0	0	0
455.22	1362.63	3	39.82	SLSPSHLTEDR						
643.31	1926.91	3	47.5	SLSTSGESLYHVLGLDK						
			59.64	SLSTSGESLYHVLGLDK	1	1	0	0	0	0
964.53	1927.04	2	59.64	SLSTSGESLYHVLGLDK						
			96.69	SLYASSPGGVYATR	1	5	0	0	0	0

761.86	1521.71	2	96.69	SLYASSPGGVYATR						
			40.37	SMMSPMAER	1	4	0	0	0	0
574.23	1146.45	2	40.37	SMMSPMAER						
			30.72	SMSENAVR	1	1	0	0	0	0
501.21	1000.4	2	30.72	SMSENAVR						
			27.38	SNEKFLWKKFSPSDTDENATNTQSTT	5	1	13	15	22	25
882.33	3525.28	4	27.38	SNEKFLWKKFSPSDTDENATNTQSTT						
			38.54	SNSDESNFSEK	1	3	0	0	0	0
690.27	1378.52	2	38.54	SNSDESNFSEK						
			70.12	SNSTTQVSQPR	1	3	0	0	0	0
649.78	1297.54	2	70.12	SNSTTQVSQPR						
			32.34	SPGRTPLSIVSLPQSSTK	3	1	5	16	0	0
527.76	2107.01	4	32.34	SPGRTPLSIVSLPQSSTK						
			65.12	SPGSTPTTPTSSQAPQK	2	4	7	0	0	0
923.38	1844.74	2	65.12	SPGSTPTTPTSSQAPQK						
			26.57	SPRSPQLSDFGLER	1	4	0	0	0	0
571.27	1710.8	3	26.57	SPRSPQLSDFGLER						
516.93	1547.77	3	28.15	SPVSTRPLPSASQK						
			52.56	SPVSTRPLPSASQK	1	1	0	0	0	0
774.88	1547.75	2	52.56	SPVSTRPLPSASQK						
			72.2	SQSSDTEQQSPTSGGGK	2	3	10	0	0	0
941.85	1881.69	2	72.2	SQSSDTEQQSPTSGGGK						
			91.41	SQSSDTEQQSPTSGGGK	1	4	0	0	0	0
901.86	1801.7	2	91.41	SQSSDTEQQSPTSGGGK						
			59.12	SQSTSEQEKR	1	3	0	0	0	0
651.27	1300.52	2	59.12	SQSTSEQEKR						
			25.44	SRAAENASLGPTNGSK	2	1	15	0	0	0
874.9	1747.79	2	25.44	SRAAENASLGPTNGSK						
			57.51	SRINSSGESGDESDEFLQSR	4	1	5	9	13	0
868.64	2602.91	3	57.51	SRINSSGESGDESDEFLQSR						
			28.15	SRSASSSPETRSRTPPR	5	1	3	5	7	10
592.73	2366.9	4	28.15	SRSASSSPETRSRTPPR						
			29.13	SRSDIDVNAAAGAK	1	3	0	0	0	0
748.86	1495.7	2	29.13	SRSDIDVNAAAGAK						
			27.06	SRSGEGEVSGLMR	1	1	0	0	0	0
496.23	1485.66	3	27.06	SRSGEGEVSGLMR						
			26.03	SRSHSPMSNR	3	1	3	5	0	0
706.73	1411.44	2	26.03	SRSHSPMSNR						
			32.96	SRSPIIHSPK	2	1	8	0	0	0
648.29	1294.57	2	32.96	SRSPIIHSPK						
			26.07	SRSPSSPELNNK	2	1	5	0	0	0
752.31	1502.61	2	26.07	SRSPSSPELNNK						
			62.6	SRSPSSPELNNK	3	1	3	5	0	0
792.29	1582.56	2	62.6	SRSPSSPELNNK						
			36.83	SRSSDIVSSVR	1	1	0	0	0	0
434.21	1299.62	3	36.83	SRSSDIVSSVR						
			40	SRTGSESSQTGTSTTSSR	2	7	8	0	0	0
1002.87	2003.73	2	40	SRTGSESSQTGTSTTSSR						
			52.63	SRTGSESSQTGTSTTSSR	3	1	3	7	0	0
695.57	2083.7	3	52.63	SRTGSESSQTGTSTTSSR						
			27.67	SRTPPSAPSQSR	1	1	0	0	0	0
682.8	1363.58	2	27.67	SRTPPSAPSQSR						
			25.41	SSDSDSDSSSEDEPPK	2	2	4	0	0	0
642.97	1925.89	3	25.41	SSDSDSDSSSEDEPPK						
			28.58	SSEEGPGDSASPVFTAPAESEGPGPEEK	2	1	2	0	0	0
963.73	3850.88	4	28.58	SSEEGPGDSASPVFTAPAESEGPGPEEK						
			28.63	SSFFSDRGSGSR	1	9	0	0	0	0
466.54	1396.59	3	28.63	SSFFSDRGSGSR						
			41.27	SSGHSSSELSPDAVEK	2	7	10	0	0	0
916.88	1831.74	2	41.27	SSGHSSSELSPDAVEK						
			126.91	SSGSPYGGGYGSGGGSGGYGSR	1	4	0	0	0	0
1002.88	2003.74	2	126.91	SSGSPYGGGYGSGGGSGGYGSR						
			74.77	SSMSGLHLVK	1	4	0	0	0	0
576.77	1151.52	2	74.77	SSMSGLHLVK						
470.2	1407.59	3	26.4	SSPEQPRPSTSK						
			49.33	SSPEQPRPSTSK	1	2	0	0	0	0
704.81	1407.6	2	49.33	SSPEQPRPSTSK						
			41.82	SSPPEGKLETK	1	1	0	0	0	0
432.22	1293.63	3	41.82	SSPPEGKLETK						
			30.76	SSRSSPELTR	3	1	4	5	0	0
694.27	1386.52	2	30.76	SSRSSPELTR						
			32.92	SSRSSPELTR	2	4	5	0	0	0
436.52	1306.53	3	32.92	SSRSSPELTR						
			34.73	SSRSSPELTR	1	4	0	0	0	0
614.27	1226.52	2	34.73	SSRSSPELTR						
			64.19	SSSAGPEGPQLDVPR	1	1	0	0	0	0
540.26	1617.76	3	64.19	SSSAGPEGPQLDVPR						
			51.97	SSSISEEKGDSDDEKPR	1	11	0	0	0	0
681.98	2042.93	3	51.97	SSSISEEKGDSDDEKPR						
			35.62	SSSLPAYGR	1	3	0	0	0	0
516.23	1030.44	2	35.62	SSSLPAYGR						
			34.48	SSSMAAGLER	1	3	0	0	0	0

558.74	1115.47	2	34.48	SSSMAAGLER						
674.31	2019.91	3	85.27	SSSPAPADIAQTVQEDLR						
			90.08	SSSPAPADIAQTVQEDLR	1	1	0	0	0	0
1010.97	2019.93	2	90.08	SSSPAPADIAQTVQEDLR						
			44.86	SSSPGKLLGSGYGGLTGGSSR	1	10	0	0	0	0
673.65	2017.94	3	44.86	SSSPGKLLGSGYGGLTGGSSR						
			36.23	SSSPVNVK	1	3	0	0	0	0
456.2	910.39	2	36.23	SSSPVNVK						
			51.74	SSSPVQVEEEPVR	1	3	0	0	0	0
789.86	1577.71	2	51.74	SSSPVQVEEEPVR						
			39.59	SSSSSQESLNRPFSSK	1	5	0	0	0	0
612.63	1834.86	3	39.59	SSSSSQESLNRPFSSK						
			56.51	SSTPLPTISSSAENTR	1	3	0	0	0	0
878.41	1754.81	2	56.51	SSTPLPTISSSAENTR						
878.41	1754.81	2	56.51	SSTPLPTISSSAENTR						
			76.85	SSTPPGESYFGVSSLQLK	1	3	0	0	0	0
996.46	1990.91	2	76.85	SSTPPGESYFGVSSLQLK						
			35.86	SSTPPRQSPSR	2	3	8	0	0	0
687.27	1372.54	2	35.86	SSTPPRQSPSR						
			33.43	STFREESPLRIK	1	7	0	0	0	0
528.94	1583.81	3	33.43	STFREESPLRIK						
			26.32	STGEEEASQTPRPSASPATPEK	4	1	8	14	16	0
662.33	2645.27	4	26.32	STGEEEASQTPRPSASPATPEK						
			58.92	STSTPNVHMVSTTLPVDSR	1	3	0	0	0	0
713	2135.97	3	58.92	STSTPNVHMVSTTLPVDSR						
			46.39	STSTPTSPGPR	1	7	0	0	0	0
591.25	1180.48	2	46.39	STSTPTSPGPR						
			26.9	SVELGITISSASRK	3	1	10	12	0	0
572.6	1714.79	3	26.9	SVELGITISSASRK						
			46.86	SVSSYGNIR	1	4	0	0	0	0
538.74	1075.46	2	46.86	SVSSYGNIR						
			38.87	SVVSFDKVK	1	4	0	0	0	0
558.79	1115.56	2	38.87	SVVSFDKVK						
			45.69	SVVSFDKVKEPR	1	4	0	0	0	0
504.93	1511.76	3	45.69	SVVSFDKVKEPR						
625.28	1248.55	2	30.44	SWSPPPEVSR						
			50.41	SWSPPPEVSR	1	1	0	0	0	0
417.2	1248.56	3	50.41	SWSPPPEVSR						
554.24	1659.71	3	36	SYSPDGKESPSDKK						
870.85	1739.69	2	39.24	SYSPDGKESPSDKK						
			40.79	SYSPDGKESPSDKK	2	3	9	0	0	0
580.91	1739.7	3	40.79	SYSPDGKESPSDKK						
			48.03	SYSPDGKESPSDKK	1	3	0	0	0	0
830.86	1659.7	2	48.03	SYSPDGKESPSDKK						
			27.85	SYTSGPGSR	1	3	0	0	0	0
503.19	1004.37	2	27.85	SYTSGPGSR						
			25.57	TAETDVLFNKVESSGK	4	1	4	13	14	0
1051.49	2100.96	2	25.57	TAETDVLFNKVESSGK						
			29.29	TALSAPQTLAVPRDAPAAT	3	1	8	19	0	0
1059.5	2116.99	2	29.29	TALSAPQTLAVPRDAPAAT						
			33.45	TAPPASPEAR	1	6	0	0	0	0
552.75	1103.48	2	33.45	TAPPASPEAR						
			32.81	TAPTLSPEHWK	1	6	0	0	0	0
458.89	1373.65	3	32.81	TAPTLSPEHWK						
			55.56	TASFSESR	1	3	0	0	0	0
496.71	991.4	2	55.56	TASFSESR						
			51.59	TASLTSAASVDGNR	1	3	0	0	0	0
729.35	1456.68	2	51.59	TASLTSAASVDGNR						
			45.71	TASPPPPPK	1	3	0	0	0	0
493.22	984.43	2	45.71	TASPPPPPK						
			36.89	TASPPPPPKR	1	1	0	0	0	0
571.28	1140.54	2	36.89	TASPPPPPKR						
			39.56	TDSIGEK	1	3	0	0	0	0
436.19	870.37	2	39.56	TDSIGEK						
			28.1	TEDSATYYCALYWGYTDKLIFGK	5	4	8	12	15	16
791.83	3163.28	4	28.1	TEDSATYYCALYWGYTDKLIFGK						
			37.32	TFSLTEVR	1	3	0	0	0	0
530.76	1059.5	2	37.32	TFSLTEVR						
			29.84	TFTCTAAYPESKTPLTATLPK	3	1	5	11	0	0
837.36	2509.07	3	29.84	TFTCTAAYPESKTPLTATLPK						
			54.61	TGDEKDVSV	1	8	0	0	0	0
543.25	1084.48	2	54.61	TGDEKDVSV						
1004.11	3009.32	3	29.8	TGDLGIPPNPEDRSPSPEPIYNSEGK						
			32.47	TGDLGIPPNPEDRSPSPEPIYNSEGK	2	14	16	0	0	0
1004.11	3009.31	3	32.47	TGDLGIPPNPEDRSPSPEPIYNSEGK						
			25.8	TGKEYIPGQPPLSQSSDSSPTR	1	15	0	0	0	0
818.72	2453.14	3	25.8	TGKEYIPGQPPLSQSSDSSPTR						
			88.22	TGSESSQTGTSTTSSR	1	3	0	0	0	0
841.33	1680.65	2	88.22	TGSESSQTGTSTTSSR						
			44.83	TGSYGALAEITASK	1	3	0	0	0	0
738.32	1474.62	2	44.83	TGSYGALAEITASK						
			26.81	TGVETSQVVPNQAILHSSSR	1	19	0	0	0	0

740.29	2217.86	3	26.81	TGVETSQVVPNQAILHSSSR						
838.9	2513.68	3	25.93	TGVTSTSDSEEEGDDQEGEKK						
			48.86	TGVTSTSDSEEEGDDQEGEKK	2	7	9	0	0	0
838.67	2512.98	3	48.86	TGVTSTSDSEEEGDDQEGEKK						
			54.29	TGVTSTSDSEEEGDDQEGEKKR	2	7	9	0	0	0
890.7	2669.08	3	54.29	TGVTSTSDSEEEGDDQEGEKKR						
			50.22	THTTALAGRSPSPASGR	2	10	12	0	0	0
920.89	1839.76	2	50.22	THTTALAGRSPSPASGR						
			25.79	TIASDSEEEAGKELSDK	2	4	6	0	0	0
689.8	2066.38	3	25.79	TIASDSEEEAGKELSDK						
			47.39	TIGGGDDSFNTFFSETGAGK	1	8	0	0	0	0
715.31	2142.92	3	47.39	TIGGGDDSFNTFFSETGAGK						
			36.38	TISNPEVVMK	1	3	0	0	0	0
613.27	1224.53	2	36.38	TISNPEVVMK						
			41.99	TLNMTTSPEEK	1	7	0	0	0	0
686.81	1371.6	2	41.99	TLNMTTSPEEK						
			32.52	TLTDEVNSPDSDRR	1	8	0	0	0	0
585.6	1753.77	3	32.52	TLTDEVNSPDSDRR						
			37.94	TPISPLK	1	4	0	0	0	0
425.23	848.44	2	37.94	TPISPLK						
			61.64	TPSIQPSLLPHAAPFAK	1	3	0	0	0	0
623.66	1867.96	3	61.64	TPSIQPSLLPHAAPFAK						
			45.75	TPTPEPAEVETR	1	3	0	0	0	0
731.83	1461.65	2	45.75	TPTPEPAEVETR						
			38.95	TPTSPLK	1	4	0	0	0	0
419.2	836.38	2	38.95	TPTSPLK						
			37	TPVSPVKFSPGDFWGR	1	4	0	0	0	0
629.3	1884.87	3	37	TPVSPVKFSPGDFWGR						
			26.34	TSDVNSSVGKSTATLPLSFKEATLAK	5	1	6	7	11	12
794.59	3174.31	4	26.34	TSDVNSSVGKSTATLPLSFKEATLAK						
			25.71	TSIQDTSASSQNHWTR	3	2	9	10	0	0
522.26	2085.02	4	25.71	TSIQDTSASSQNHWTR						
			29.69	TSPLKDNPSPEPQLDDIKR	2	1	9	0	0	0
595.79	2379.15	4	29.69	TSPLKDNPSPEPQLDDIKR						
			29.16	TSPPLLDR	1	2	0	0	0	0
503.75	1005.48	2	29.16	TSPPLLDR						
			68.49	TSQVGAASAPAKESPR	1	14	0	0	0	0
832.89	1663.76	2	68.49	TSQVGAASAPAKESPR						
			38.45	TSSAFVGKTPEASPEPK	2	9	13	0	0	0
645.62	1933.83	3	38.45	TSSAFVGKTPEASPEPK						
			55.72	TSSDDESEEDEDDLLQR	2	3	7	0	0	0
761.32	2280.95	3	55.72	TSSDDESEEDEDDLLQR						
			28.25	TSSEPEVSVLPK	3	1	3	8	0	0
777.33	1552.64	2	28.25	TSSEPEVSVLPK						
			78.78	TSSGTSLSAMHSSGSSGK	1	3	0	0	0	0
588.23	1761.68	3	78.78	TSSGTSLSAMHSSGSSGK						
422.25	1263.72	3	26.89	TTAPSFTLATIK						
			33.82	TTAPTEGKSPLKKEDR	1	9	0	0	0	0
474.22	1892.84	4	33.82	TTAPTEGKSPLKKEDR						
			44.96	TTKSPSDSGYSYETIGK	1	6	0	0	0	0
648.29	1941.85	3	44.96	TTKSPSDSGYSYETIGK						
			25.72	TTSFKGTSPSSKYVK	5	1	2	7	8	13
508.48	2029.9	4	25.72	TTSFKGTSPSSKYVK						
			25.42	TTSPLEEEEREIK	1	3	0	0	0	0
575.62	1723.83	3	25.42	TTSPLEEEEREIK						
			50.64	TTSPPEVSGYSYEK	1	3	0	0	0	0
833.85	1665.69	2	50.64	TTSPPEVSGYSYEK						
			25.48	TTTLSILSGLFPPSGGSAFILGHDVR	4	2	5	14	17	0
748.34	2989.32	4	25.48	TTTLSILSGLFPPSGGSAFILGHDVR						
			51.02	TVSSPPTSPRPGSAATVSASTSNIIPPR	2	18	20	0	0	0
728.33	2909.3	4	51.02	TVSSPPTSPRPGSAATVSASTSNIIPPR						
			28.2	TYFGGGTASAYLAGEDFYIPR	2	7	9	0	0	0
820.34	2458	3	28.2	TYFGGGTASAYLAGEDFYIPR						
			57.9	VADNSFDAK	1	5	0	0	0	0
544.74	1087.46	2	57.9	VADNSFDAK						
658.34	1314.67	2	28.89	VAPNPTGVDSAMK						
			25.53	VASVSLEGLNLARVHPGTSITASVTASSLA	2	3	32	0	0	0
1062	4243.97	4	25.53	VASVSLEGLNLARVHPGTSITASVTASSLA						
855	2561.98	3	32.46	VEAKEESEESDEDMGFGLFD						
			68.7	VEAKEESEESDEDMGFGLFD	2	7	10	0	0	0
1282.02	2562.02	2	68.7	VEAKEESEESDEDMGFGLFD						
584.25	2332.96	4	34.01	VEMYSGSDDDDDFNKLPK						
1166.9	2331.79	2	39.45	VEMYSGSDDDDDFNKLPK						
			55	VEMYSGSDDDDDFNKLPK	2	5	7	0	0	0
778.31	2331.9	3	55	VEMYSGSDDDDDFNKLPK						
			40.24	VESPSAQHLLNNPGSGQELLVSSTTAAEG	5	3	15	22	23	24
960.41	3837.62	4	40.24	VESPSAQHLLNNPGSGQELLVSSTTAAEG						
			40	VFPSVASPQK	1	7	0	0	0	0
577.28	1152.54	2	40	VFPSVASPQK						
			25.95	VGDKVLLPEYGGTK	1	13	0	0	0	0
799.43	1596.84	2	25.95	VGDKVLLPEYGGTK						
499.55	1495.64	3	38.14	VGGSDEEASGIPSR						

			91.84	VGGSDEEASGIPSR	1	4	0	0	0	0
748.83	1495.65	2	91.84	VGGSDEEASGIPSR						
			45.04	VKDSSPGEK	1	5	0	0	0	0
534.74	1067.47	2	45.04	VKDSSPGEK						
			44.76	VKPETPPR	1	5	0	0	0	0
516.24	1030.47	2	44.76	VKPETPPR						
			25.63	VKPETPPRQSHSGSISPYPK	2	5	14	0	0	0
596.04	2380.13	4	25.63	VKPETPPRQSHSGSISPYPK						
			25.9	VLATNGFHAPDSNVSGLDCDPALPSYPKS	2	12	25	0	0	0
959.95	3835.76	4	25.9	VLATNGFHAPDSNVSGLDCDPALPSYPKS						
			27.35	VLNTGSDVEEAVADALK	1	4	0	0	0	0
627.64	1879.91	3	27.35	VLNTGSDVEEAVADALK						
			50.96	VLSDSEDEEKDADVPGTSTR	2	3	5	0	0	0
808.34	2422	3	50.96	VLSDSEDEEKDADVPGTSTR						
			25.47	VLSLSAGEFKEKIVLRPVTVRK	1	19	0	0	0	0
864.82	2591.45	3	25.47	VLSLSAGEFKEKIVLRPVTVRK						
			40.67	VMDSDEDDDY	1	4	0	0	0	0
691.24	1380.46	2	40.67	VMDSDEDDDY						
			28.05	VMPMTIQFSILIMLHSALVLITTAEDYK	2	16	22	0	0	0
846.04	3380.15	4	28.05	VMPMTIQFSILIMLHSALVLITTAEDYK						
			33.16	VQAGPGSPR	1	7	0	0	0	0
481.72	961.42	2	33.16	VQAGPGSPR						
725.29	2172.84	3	54.55	VQEHEDSGDSEVENEAK						
			71.82	VQEHEDSGDSEVENEAK	2	7	10	0	0	0
1087.43	2172.84	2	71.82	VQEHEDSGDSEVENEAK						
			38.63	VRYDSSNQVK	1	5	0	0	0	0
652.3	1302.58	2	38.63	VRYDSSNQVK						
			41.32	VSGRTSPPLLDR	1	5	0	0	0	0
469.24	1404.69	3	41.32	VSGRTSPPLLDR						
			30.1	VSPSTSYTPSR	1	2	0	0	0	0
638.28	1274.55	2	30.1	VSPSTSYTPSR						
			25.74	VSVSPGQTASFTCSGDK	3	4	10	14	0	0
647.28	1938.83	3	25.74	VSVSPGQTASFTCSGDK						
			42.52	VVEAVNSDSDSEFGIPK	2	7	9	0	0	0
1012	2021.99	2	42.52	VVEAVNSDSDSEFGIPK						
407.86	1220.57	3	27.72	VVTNARSPGAR						
			34.26	VVTNARSPGAR	1	7	0	0	0	0
611.3	1220.58	2	34.26	VVTNARSPGAR						
			37.31	VVVSPTK	1	4	0	0	0	0
412.21	822.4	2	37.31	VVVSPTK						
			36.62	VVVSPTKK	1	4	0	0	0	0
476.26	950.5	2	36.62	VVVSPTKK						
			60.95	WDGSEEDEDNSK	1	4	0	0	0	0
794.81	1587.6	2	60.95	WDGSEEDEDNSK						
572.89	1715.64	3	34.36	WDGSEEDEDNSKK						
			41.33	WDGSEEDEDNSKK	1	4	0	0	0	0
858.85	1715.69	2	41.33	WDGSEEDEDNSKK						
			29.7	WTKPSSFSDSER	1	10	0	0	0	0
516.91	1547.7	3	29.7	WTKPSSFSDSER						
			27.92	YDERPGPSPLPHR	1	8	0	0	0	0
548.26	1641.77	3	27.92	YDERPGPSPLPHR						
			44.74	YGMGTSVER	1	6	0	0	0	0
554.23	1106.45	2	44.74	YGMGTSVER						
567.57	1699.69	3	31.34	YHGHSMSDPGVSYR						
			31.54	YHGHSMSDPGVSYR	1	5	0	0	0	0
567.58	1699.7	3	31.54	YHGHSMSDPGVSYR						
			41.67	YLEESDEDDLF	1	5	0	0	0	0
776.82	1551.63	2	41.67	YLEESDEDDLF						
			71.14	YLLGDAPVSPSSQK	1	9	0	0	0	0
785.38	1568.74	2	71.14	YLLGDAPVSPSSQK						
			25.7	YRSPEPDPYLSYR	1	1	0	0	0	0
589.27	1764.78	3	25.7	YRSPEPDPYLSYR						
			44.59	YRSPYSGPK	1	3	0	0	0	0
574.75	1147.49	2	44.59	YRSPYSGPK						
			54.84	YSPTSPTYSPTSPK	1	5	0	0	0	0
803.85	1605.69	2	54.84	YSPTSPTYSPTSPK						
			46.04	YSPTSPTYSPTTPK	1	5	0	0	0	0
810.87	1619.73	2	46.04	YSPTSPTYSPTTPK						
			32.16	YYGGGSEGGRAPK	1	6	0	0	0	0
703.8	1405.58	2	32.16	YYGGGSEGGRAPK						

Table 5: Details of 125 common phosphopeptides using previously described and optimzed IMAC buffers (Fig. 3C)
(*): precursors selected for MS/MS in only one of the analyses (white bars in Fig. 3C)

Number	pep_score	pep_mr	pep_sequence	Num Mods	ModPos 1	ModPos 2	ModPos 3	ModPos 4	ModPos 5
1	47.52	1078.57	KVVVSPTKK	1	5	0	0	0	0
2	26.54	1270.59	RRPSPQPSPR *	1	4	0	0	0	0
3	41.75	1142.55	RVPSPTPAPK *	1	4	0	0	0	0
4	52.12	1560.80	AGDLLEDSPKRPK	1	8	0	0	0	0
5	45.71	984.43	TASPPPPPK *	1	3	0	0	0	0
6	47.59	1274.56	AGETRFTDTR	1	7	0	0	0	0
7	51.38	1063.51	KPIETGSPK	1	7	0	0	0	0
8	38.04	990.43	LGSPKPER	1	3	0	0	0	0
9	41.32	1404.69	VSGRTSPPLLDR	1	5	0	0	0	0
10	45.75	1123.50	ASAVSELSPR	1	8	0	0	0	0
11	102.75	1787.62	NQGGYGGSSSSSSYGSGR	1	16	0	0	0	0
12	44.2	1316.59	APQTSSSPPPVR	1	6	0	0	0	0
13	62.86	1662.80	SKESVPEFPLSPPK	1	11	0	0	0	0
14	30.11	1152.50	VFPSVASPQK	1	7	0	0	0	0
15	83.26	1166.53	AGGSAALSPSKK	1	8	0	0	0	0
16	36.89	1140.54	TASPPPPPKR *	1	1	0	0	0	0
17	32.28	1076.46	LNQPGTPTR	1	8	0	0	0	0
18	90.08	2019.93	SSSPAPADIAQTVQEDLR	1	1	0	0	0	0
19	69.55	2196.95	NKPGPNIESGNEDDDASFK	1	9	0	0	0	0
20	53.86	1873.00	ERSPALKSPLQSVVVR	1	3	0	0	0	0
21	43.59	2084.92	GLLYDSDEEDEERPAR	1	6	0	0	0	0
22	45.35	1264.62	RIDISPSTLR *	1	5	0	0	0	0
23	48.84	1085.36	SGMSPEQSR	1	4	0	0	0	0
24	35.91	993.43	GLPPSMER	1	5	0	0	0	0
25	34.73	1226.52	SSRSSPELTR *	1	4	0	0	0	0
26	28.99	1065.43	MEESFSSK	1	4	0	0	0	0
27	33.23	1693.81	LKDLFDYSPPLHK	1	8	0	0	0	0
28	35.02	1220.55	KAASPSPQSVR	1	4	0	0	0	0
29	55.31	1499.52	KRETDDEGEDD	1	4	0	0	0	0
30	31.15	1328.62	RESPSPAPKPR *	1	3	0	0	0	0
31	52.32	1182.55	QLSSGVSEIR	1	3	0	0	0	0
32	80.1	2069.93	KETESEAEDNLDDLEK	1	5	0	0	0	0
33	27.06	1485.66	SRSGEGEVSGLMR	1	1	0	0	0	0
34	52.77	1495.73	ASGQAFELILSPR	1	11	0	0	0	0
35	44.76	1030.47	VKPETPPR *	1	5	0	0	0	0
36	71	1292.60	IGEGTYGVVYK	1	6	0	0	0	0
37	53.21	2325.92	MPQDGSDDEDEEWPTLEK	1	6	0	0	0	0
38	27.08	815.28	SGSSSER *	1	4	0	0	0	0
39	39.25	1151.50	SSMSGLHLVK	1	4	0	0	0	0
40	47.02	1245.55	SFSKEVEER	1	3	0	0	0	0
41	49.62	1651.83	RASGQAFELILSPR	1	12	0	0	0	0
42	123.93	2626.04	SASPDDDLGSSNWEAADLGNEER	1	3	0	0	0	0
43	65.09	1305.51	SFSSPENFQR	1	3	0	0	0	0
44	77.85	1086.50	ASSLNFLNK	1	3	0	0	0	0
45	96.69	1521.71	SLYASSPGGVYATR	1	5	0	0	0	0
46	38.87	1115.56	SVVSFDKVK	1	4	0	0	0	0
47	46.86	1075.46	SVSSYGNIR	1	4	0	0	0	0
48	27.18	939.41	EVELVSE	1	6	0	0	0	0
49	47.78	2314.07	ELSNSPLRENSFGSPLEFR	1	5	0	0	0	0
50	59.37	1404.64	FVAFSGEGQSLR	1	10	0	0	0	0
51	25.57	1144.47	SLSYSPVER	1	5	0	0	0	0
52	36.84	1698.80	LSSGFDDIDLPSAVK	1	3	0	0	0	0
53	28.32	1133.39	DYDDMSPR	1	6	0	0	0	0
54	34.58	1139.49	QPTPPFFGR	1	3	0	0	0	0
55	61.38	1030.48	LGSFGSITR	1	3	0	0	0	0
56	77.97	1926.92	SLSTSGESLYHVLGLDK	1	3	0	0	0	0
57	63.29	966.39	GGSPDLWK	1	3	0	0	0	0
58	45.98	1090.42	SFSMQDLR	1	3	0	0	0	0
59	53.98	1671.62	SGYHDDSDEDLLE	1	7	0	0	0	0
60	44.74	1106.45	YGMGTSVER	1	6	0	0	0	0
61	92.43	2121.99	GLSASLPDLDSENWIEVK	1	3	0	0	0	0
62	37.92	2080.76	DWEDDSDEDMSNFDR	1	6	0	0	0	0
63	48.52	878.47	LSLSPLR	1	4	0	0	0	0
64	57.93	1547.62	GSPHYFSPFRPY	1	2	0	0	0	0
65	28.74	1408.57	RESPSPAPKPR	2	3	5	0	0	0
66	53.96	2537.08	KLEKEEEEGISQESSEEEQ	2	14	15	0	0	0
67	42.61	1300.52	KAASPSPQSVR *	2	4	6	0	0	0
68	42.52	1487.63	SGSSPEVKDKPR	2	3	4	0	0	0
69	42.95	1892.79	AAVLSDSEDEEKASAK	2	5	7	0	0	0
70	37.06	1801.71	KHSPSPPPPTPTESR	2	3	5	0	0	0
71	31.23	1940.83	RPAEATSSPTSPERPR	2	10	11	0	0	0
72	34.48	1267.54	ARSVSPPPKR	2	3	5	0	0	0
73	65.51	1865.75	EKQSSEEEEKETR	2	4	5	0	0	0
74	34.11	1201.45	RYSPSPPPK	2	3	5	0	0	0
75	29.1	1378.56	RLSSLRASTSK	2	3	4	0	0	0
76	40	2003.73	SRTGSESSQTGTSTTSSR	2	7	8	0	0	0
77	33.31	1441.52	RRSPSPYYSR	2	3	7	0	0	0
78	32.61	1371.54	SATRPSPSPER	2	6	8	0	0	0
79	29.05	1390.58	RRSPSPAPPPR	2	3	5	0	0	0
80	45.18	1172.42	AASPSPQSVR	2	3	5	0	0	0

81	39.24	1513.60	ERSPSPPTIQSK	2	3	5	0	0	0
82	42.28	2455.11	KRESESESDETPPAAPQLIK	2	4	6	0	0	0
83	33.69	2394.04	ELSNSPLRENSFGSPLEFR *	2	3	14	0	0	0
84	50.42	1627.61	GSPHYFSPFRPY	2	2	7	0	0	0
85	72.2	1881.69	SQSSDTEQQSPTSGGGK	2	3	10	0	0	0
86	36.74	1218.49	LQTPNTFPK	2	3	6	0	0	0
87	45.71	1923.70	KASGSENEGDYNPGRK	2	3	5	0	0	0
88	36.17	1414.57	LRLSPSPTSQR	2	4	6	0	0	0
89	35.31	1840.88	RIDFIPVSPAPSPTR	2	8	12	0	0	0
90	48.63	1372.58	IGEGTYGVVYK	2	5	6	0	0	0
91	34.32	1952.97	ERSPALKSPLQSVVVR	2	3	8	0	0	0
92	77.11	1691.63	ASSHSSQTQGGGSVTK	2	3	6	0	0	0
93	42.7	1750.64	EAEDSDSDDNIKR	2	5	7	0	0	0
94	26.07	1502.61	SRSPSSPELNNK	2	1	5	0	0	0
95	64.69	2294.88	RGDSESEEDEQDSEEVR	2	4	6	0	0	0
96	67.63	2149.90	KETESEAEDNLDDLEK *	2	3	5	0	0	0
97	39.15	1240.52	RLSPSASPPR	2	3	7	0	0	0
98	54.58	1966.80	LLEDSEESSEETVSR	2	5	8	0	0	0
99	74.73	2087.80	KAEDSDSEPEPEDNVR	2	5	7	0	0	0
100	33.55	2391.14	SASQSSLDKLDQELKEQQK	2	3	5	0	0	0
101	48.71	1689.78	ALSRQLSSGVSEIR	2	3	7	0	0	0
102	32.92	1306.53	SSRSSPELTR	2	4	5	0	0	0
103	31.69	1762.16	RKSLSDSESDDSK *	3	3	5	7		
104	60.33	2615.97	KLEKEEEEGISQESSEEEQ	3	11	14	15	0	0
105	37.16	1937.62	HKSDSPESDAEREK *	3	3	5	8		
106	34.29	2485.07	RPPSPDVIVLSDNEQPSSPR	3	4	11	18	0	0
107	25.88	1717.62	GRRSSDTEEESR	3	4	5	7	0	0
108	63.69	2489.92	KTSSDDESEEDEDDLLQR	3	3	4	8	0	0
109	52.28	2418.05	KLSVPTSDEEDEVPAPKPR	3	3	6	7	0	0
110	37.54	2470.89	LQDSSSEEEDVTEETDHR *	3	4	5	6		
111	30.76	1386.52	SSRSSPELTR *	3	1	4	5	0	0
112	53.85	2535.10	KRESESESDETPPAAPQLIK	3	4	6	8	0	0
113	50.52	1320.48	RLSPSASPPR	3	3	5	7	0	0
114	45.04	1648.61	KRSPSPSPTPEAK *	3	3	5	7		
115	62.6	1582.56	SRSPSSPELNNK	3	1	3	5	0	0
116	61.42	3282.19	LVEDERSDREETESSEGEEAAAGGGAK	4	7	12	14	15	0
117			SRINSSGESGDESDEFLQSR	4					
118	36.08	2048.76	RVSSSRSVSGSPEPAAK *	4	3	7	9	11	0
119	33.17	2101.72	RKPSTSDDSDSNFEK	4	4	5	6	9	0
120	27.09	2445.85	GQSQTSPDHRSDTSSPEVR	4	6	11	14	15	0
121	54.52	3281.30	LEDSEVRSVASNQSEMEFSSLQDMPK	3	8	11	14	0	0
122	39.17	1731.58	RSPSVSSPEPAEK	4	2	4	6	7	0
123	26.07	1502.61	SRSPSSPELNNK *	4					
124	44.28	2366.90	KESESEDSSDDEPLIKK	4	3	5	8	9	0
125	27.51	2042.75	AQSGSDSSPEPKAPAPR	4	3	5	7	8	0

optimized / previous intensity ratio
12.21
10.90
10.41
7.59
7.43
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5.29
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