

Table 2. Trypsin 5 ppm search

Peptide no.	IPI number	Mass	Sequence	m/z	z	MS2-score	MS3-ion	MS3-score	Combined
1	IPI00120451.1	14294	AIGLPEDLIQK	598.8489	2	41	P y7	95.7	136.7
2	IPI00120451.1	14294	AIGLPEDLIQK	598.8475	2	44	P y7	95.7	139.7
3	IPI00120451.1	14294	AIGLPEDLIQK	598.8488	2	48	P y7	116.0	164.0
4	IPI00120451.1	14294	AIGLPEDLIQK	598.8474	2	54	P y7	95.7	149.7
5	IPI00120451.1	14294	GVSEIVHEGK	352.1891	3	17	y6	15.6	32.6
6	IPI00120451.1	14294	GVSEIVHEGK	527.7807	2	49	y8	58.1	107.1
7	IPI00120451.1	14294	GVSEIVHEGK	527.7807	2	54	y5	57.1	111.1
8	IPI00120451.1	14294	GVSEIVHEGKK	394.8877	3	22	y4	0.9	22.9
9	IPI00120451.1	14294	GVSEIVHEGKK	591.8280	2	48	y4	28.0	76.0
10	IPI00120451.1	14294	GVSEIVHEGKK	591.8279	2	59	y6	53.0	112.0
11	IPI00120451.1	14294	LTITYGPK	446.7610	2	30	y5	69.8	99.8
12	IPI00120451.1	14294	LTITYGPK	446.7610	2	34	y6	53.0	87.0
13	IPI00120451.1	14294	MNFSGK	725.3350	1	23		0.0	23.0
14	IPI00120451.1	14294	MNFSGK	725.3316	1	27		0.0	27.0
15	IPI00120451.1	14294	MVTTFK	726.3856	1	19		0.0	19.0
16	IPI00120451.1	14294	MVTTFK	726.3855	1	21		0.0	21.0
17	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	796.0665	3	15		0.0	15.0
18	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	796.0687	3	18	y6	69.8	87.8
19	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	796.0687	3	22		0.0	22.0
20	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5906	2	24	y6	27.2	51.2
21	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	796.3984	3	27	y6	69.8	96.8
22	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5966	2	58	y6	69.8	127.8
23	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5955	2	61	y8	46.8	107.8
24	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1194.0949	2	62	y6	75.6	137.6
25	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1194.0951	2	63	y8	20.1	83.1
26	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5966	2	64	y8	44.3	108.3
27	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5966	2	66	y8	12.2	78.2
28	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1194.0965	2	67	y8	33.8	100.8
29	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5964	2	68	y8	32.0	100.0
30	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5963	2	68	y4	42.0	110.0
31	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1194.0954	2	70	y8	58.1	128.1
32	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5898	2	71	y8	73.4	144.4
33	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5967	2	71	y7	57.1	128.1
34	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5961	2	71	y6	69.8	140.8
35	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5959	2	71	y8	32.0	103.0
36	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5952	2	71	y8	21.2	92.2
37	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5969	2	72		0.0	72.0
38	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5964	2	72	y8	33.8	105.8

39	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5963	2	72	y8	33.8	105.8
40	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5961	2	72	y6	69.8	141.8
41	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5963	2	73	y8	12.9	85.9
42	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5961	2	73	y8	44.3	117.3
43	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5959	2	73	y8	61.4	134.4
44	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1194.0951	2	74	y8	30.4	104.4
45	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5954	2	74	y8	58.1	132.1
46	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5960	2	75	y8	33.8	108.8
47	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5953	2	75	y8	44.3	119.3
48	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5973	2	76	y8	33.8	109.8
49	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5969	2	76		0.0	76.0
50	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5967	2	77	y6	57.1	134.1
51	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5951	2	77	y8	55.3	132.3
52	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5968	2	78	y8	55.3	133.3
53	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5964	2	78	y8	12.2	90.2
54	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5964	2	78	y6	53.0	131.0
55	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5963	2	78	y8	32.0	110.0
56	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5962	2	78		0.0	78.0
57	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5961	2	78	y8	22.4	100.4
58	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5965	2	79	y8	30.4	109.4
59	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5960	2	79	y6	89.0	168.0
60	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5958	2	79	y8	22.4	101.4
61	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5966	2	80	y8	20.1	100.1
62	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5964	2	80	y8	55.3	135.3
63	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5962	2	80		0.0	80.0
64	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5956	2	80	y8	73.4	153.4
65	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5952	2	80	y8	32.0	112.0
66	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5965	2	81	y8	32.0	113.0
67	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5964	2	81	y8	30.4	111.4
68	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5964	2	81	y6	69.8	150.8
69	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5967	2	82	y7	46.8	128.8
70	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5966	2	83	y6	69.8	152.8
71	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5963	2	83	y8	44.3	127.3
72	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5960	2	83	y8	32.0	115.0
73	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5957	2	83		0.0	83.0
74	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5950	2	83	y8	32.0	115.0
75	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5943	2	83	y8	77.6	160.6
76	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5951	2	84	y7	35.8	119.8
77	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5964	2	85	y8	55.3	140.3
78	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1193.5964	2	85	y8	33.8	118.8
79	IPI00120451.1	14294	SVTELNQDTITNTMTLGDIVYK	1194.0945	2	86	y8	42.2	128.2

80	IPI00120451.1	14294	SVTELNQDITNTMTLGDIVYK	1193.5961	2	86	y8	46.8	132.8
81	IPI00120451.1	14294	SVTELNQDITNTMTLGDIVYK	1193.5956	2	86	y4	18.5	104.5
82	IPI00120451.1	14294	SVTELNQDITNTMTLGDIVYK	1193.5954	2	88	y6	57.1	145.1
83	IPI00120451.1	14294	SVTELNQDITNTMTLGDIVYK	1193.5963	2	89	y8	33.8	122.8
84	IPI00120451.1	14294	SVTELNQDITNTMTLGDIVYK	1193.5955	2	89	y6	69.8	158.8
85	IPI00120451.1	14294	SVTELNQDITNTMTLGDIVYK	1193.5955	2	90	y8	46.8	136.8
86	IPI00120451.1	14294	SVTELNQDITNTMTLGDIVYK	1194.0950	2	91		0.0	91.0
87	IPI00120451.1	14294	SVTELNQDITNTMTLGDIVYK	1193.5952	2	91	y8	32.0	123.0
88	IPI00120451.1	14294	SVTELNQDITNTMTLGDIVYK	1193.5964	2	94	y8	58.1	152.1
89	IPI00120451.1	14294	SVTELNQDITNTMTLGDIVYK	1193.5963	2	94	y8	42.2	136.2
90	IPI00120451.1	14294	SVTELNQDITNTMTLGDIVYK	1193.5962	2	94	y8	21.2	115.2
91	IPI00120451.1	14294	SVTELNQDITNTMTLGDIVYK	1193.5960	2	94	y6	53.0	147.0
92	IPI00120451.1	14294	SVTELNQDITNTMTLGDIVYK	1193.5960	2	94	y8	44.3	138.3
93	IPI00120451.1	14294	SVTELNQDITNTMTLGDIVYK	1193.5958	2	94	y8	33.8	127.8
94	IPI00120451.1	14294	SVTELNQDITNTMTLGDIVYK	1193.5957	2	94	y8	42.2	136.2
95	IPI00120451.1	14294	SVTELNQDITNTMTLGDIVYK	1193.5954	2	94	y8	33.8	127.8
96	IPI00120451.1	14294	SVTELNQDITNTMTLGDIVYK	1193.5957	2	95	y8	21.2	116.2
97	IPI00120451.1	14294	SVTELNQDITNTMTLGDIVYK	1193.5947	2	95		0.0	95.0
98	IPI00120451.1	14294	SVTELNQDITNTMTLGDIVYK	1193.5966	2	96	y8	46.8	142.8
99	IPI00120451.1	14294	SVTELNQDITNTMTLGDIVYK	1193.5955	2	97	y7	46.8	143.8
100	IPI00120451.1	14294	SVTELNQDITNTMTLGDIVYK	1193.5960	2	111	y8	32.0	143.0
101	IPI00120451.1	14294	SVTELNQDITNTMTLGDIVYK	1193.5958	2	111	y8	46.8	157.8
102	IPI00120451.1	14294	SVTELNQDITNTMTLGDIVYK	1193.5958	2	111	y8	33.8	144.8
103	IPI00120451.1	14294	SVTELNQDITNTMTLGDIVYK	1193.5962	2	135		0.0	135.0
104	IPI00120451.1	14294	YQLSQENFEPFMK	894.9162	2	42	y5	29.5	71.5
105	IPI00120451.1	14294	YQLSQENFEPFMK	895.4200	2	49		0.0	49.0
106	IPI00120451.1	14294	YQLSQENFEPFMK	903.4181	2	52		0.0	52.0
107	IPI00120451.1	14294	YQLSQENFEPFMK	894.9161	2	55	P y4	62.3	117.3
108	IPI00120451.1	14294	YQLSQENFEPFMK	895.4165	2	57	P y4	62.3	119.3
109	IPI00120451.1	14294	YQLSQENFEPFMK	895.4201	2	62	P y4	62.3	124.3
110	IPI00120451.1	14294	YQLSQENFEPFMK	894.9161	2	65	P y4	44.5	109.5
111	IPI00120451.1	14294	YQLSQENFEPFMK	895.4199	2	67	P y4	62.3	129.3
112	IPI00120451.1	14294	YQLSQENFEPFMK	895.4155	2	69	P y4	44.5	113.5
113	IPI00120451.1	14294	YQLSQENFEPFMK	895.4166	2	82		0.0	82.0
114	IPI00283531.4	25653	AFLSSPEHVNRPINGNGK	646.6683	3	21		0.0	21.0
115	IPI00283531.4	25653	AFLSSPEHVNRPINGNGK	646.3373	3	23		0.0	23.0
116	IPI00283531.4	25653	AFLSSPEHVNRPINGNGKQ	689.3531	3	16	y5	16.9	32.9
117	IPI00283531.4	25653	AFLSSPEHVNRPINGNGKQ	689.0278	3	17	P y++14	10.1	27.1
118	IPI00283531.4	25653	AFLSSPEHVNRPINGNGKQ	689.6814	3	17		0.0	17.0
119	IPI00283531.4	25653	AFLSSPEHVNRPINGNGKQ	689.3530	3	18		0.0	18.0
120	IPI00283531.4	25653	AFLSSPEHVNRPINGNGKQ	689.6874	3	22		0.0	22.0

121	IPI00283531.4	25653	AFLSSPEHVNRPINGNGKQ	689.3590	3	22	y++15	5.0	27.0
122	IPI00283531.4	25653	AFLSSPEHVNRPINGNGKQ	689.3557	3	22		0.0	22.0
123	IPI00283531.4	25653	AFLSSPEHVNRPINGNGKQ	689.6874	3	26	y5	18.5	44.5
124	IPI00283531.4	25653	AFLSSPEHVNRPINGNGKQ	689.3591	3	32		0.0	32.0
125	IPI00283531.4	25653	AFLSSPEHVNRPINGNGKQ	1034.0237	2	39		0.0	39.0
126	IPI00283531.4	25653	AFLSSPEHVNRPINGNGKQ	1033.5317	2	44	P y++14	4.7	48.7
127	IPI00283531.4	25653	AFLSSPEHVNRPINGNGKQ	1034.0238	2	47	y5	7.1	54.1
128	IPI00283531.4	25653	AFLSSPEHVNRPINGNGKQ	1034.0237	2	50		0.0	50.0
129	IPI00283531.4	25653	AFLSSPEHVNRPINGNGKQ	1034.5158	2	52		0.0	52.0
130	IPI00283531.4	25653	ALPGHLKPFETLLSQNQGGK	534.5459	4	15	y7	82.7	97.7
131	IPI00283531.4	25653	ALPGHLKPFETLLSQNQGGK	534.5459	4	16	y6	23.8	39.8
132	IPI00283531.4	25653	ALPGHLKPFETLLSQNQGGK	534.7968	4	17	y7	35.8	52.8
133	IPI00283531.4	25653	ALPGHLKPFETLLSQNQGGK	534.5459	4	17		0.0	17.0
134	IPI00283531.4	25653	ALPGHLKPFETLLSQNQGGK	534.7968	4	20	y7	53.0	73.0
135	IPI00283531.4	25653	ALPGHLKPFETLLSQNQGGK	534.7969	4	27	y5	53.0	80.0
136	IPI00283531.4	25653	ALPGHLKPFETLLSQNQGGK	1068.5847	2	29	c b6	27.2	56.2
137	IPI00283531.4	25653	ALPGHLKPFETLLSQNQGGK	712.7286	3	33	y8	90.2	123.2
138	IPI00283531.4	25653	ALPGHLKPFETLLSQNQGGK	712.7286	3	35	y8	58.1	93.1
139	IPI00283531.4	25653	ALPGHLKPFETLLSQNQGGK	1068.5850	2	43	y7	1.4	44.4
140	IPI00283531.4	25653	ALPGHLKPFETLLSQNQGGK	1068.5851	2	44	y7	23.8	67.8
141	IPI00283531.4	25653	ALPGHLKPFETLLSQNQGGK	1068.5849	2	45	c b6	14.6	59.6
142	IPI00283531.4	25653	ALPGHLKPFETLLSQNQGGK	1068.5850	2	49	c b6	35.8	84.8
143	IPI00283531.4	25653	ALPGHLKPFETLLSQNQGGK	1068.5850	2	53		0.0	53.0
144	IPI00283531.4	25653	EAAQMDMVNDGVEDLR	896.8988	2	97	y6	25.4	122.4
145	IPI00283531.4	25653	EAAQMDMVNDGVEDLRGK	659.9717	3	37		0.0	37.0
146	IPI00283531.4	25653	EAAQMDMVNDGVEDLRGK	659.9718	3	40		0.0	40.0
147	IPI00283531.4	25653	EAAQMDMVNDGVEDLRGK	659.9717	3	44		0.0	44.0
148	IPI00283531.4	25653	EAAQMDMVNDGVEDLRGK	989.9541	2	51	y8	46.8	97.8
149	IPI00283531.4	25653	EAAQMDMVNDGVEDLRGK	989.9548	2	52	y8	32.0	84.0
150	IPI00283531.4	25653	EAAQMDMVNDGVEDLRGK	989.9548	2	68	y8	33.8	101.8
151	IPI00283531.4	25653	FEDGDLTLYQSNAILR	928.4668	2	25	y8	11.0	36.0
152	IPI00283531.4	25653	FEDGDLTLYQSNAILR	619.3141	3	40	c b8	11.6	51.6
153	IPI00283531.4	25653	FEDGDLTLYQSNAILR	928.4670	2	65	y6	23.8	88.8
154	IPI00283531.4	25653	FEDGDLTLYQSNAILR	928.4664	2	65	y8	19.2	84.2
155	IPI00283531.4	25653	FEDGDLTLYQSNAILR	928.4672	2	69	y7	12.9	81.9
156	IPI00283531.4	25653	FEDGDLTLYQSNAILR	927.9657	2	70	y6	27.2	97.2
157	IPI00283531.4	25653	FEDGDLTLYQSNAILR	928.4664	2	71	y8	19.2	90.2
158	IPI00283531.4	25653	FEDGDLTLYQSNAILR	928.4671	2	72	y7	46.8	118.8
159	IPI00283531.4	25653	FEDGDLTLYQSNAILR	928.4667	2	72	y8	19.2	91.2
160	IPI00283531.4	25653	FEDGDLTLYQSNAILR	928.4707	2	75	y8	29.0	104.0
161	IPI00283531.4	25653	FEDGDLTLYQSNAILR	928.4669	2	75	c b8	44.3	119.3

162	IPI00283531.4	25653	FEDGDLTLYQSNAILR	927.9657	2	78	y8	33.8	111.8
163	IPI00283531.4	25653	FEDGDLTLYQSNAILR	928.4671	2	91	y8	30.4	121.4
164	IPI00283531.4	25653	FEDGDLTLYQSNAILR	927.9658	2	92		0.0	92.0
165	IPI00283531.4	25653	FEDGDLTLYQSNAILR	927.9656	2	96	y6	35.8	131.8
166	IPI00283531.4	25653	LSARPK	336.2137	2	24	y5	16.9	40.9
167	IPI00283531.4	25653	MLLADQGGQSWK	638.8205	2	47	y8	55.3	102.3
168	IPI00283531.4	25653	MLLADQGGQSWKEEVVTIDTWMQGLLK	756.1373	4	32		0.0	32.0
169	IPI00283531.4	25653	MLLADQGGQSWKEEVVTIDTWMQGLLK	756.1395	4	35		0.0	35.0
170	IPI00283531.4	25653	MLLADQGGQSWKEEVVTIDTWMQGLLK	1007.5187	3	51	y4	16.9	67.9
171	IPI00283531.4	25653	MLLADQGGQSWKEEVVTIDTWMQGLLK	1007.5190	3	58	y7	23.8	81.8
172	IPI00283531.4	25653	MLLADQGGQSWKEEVVTIDTWMQGLLKPTCLYGQLPK	1045.5368	4	53	y++16	14.9	67.9
173	IPI00283531.4	25653	NQREAAQMDMVNDGVEDLRGK	793.0375	3	52	y4	7.7	59.7
174	IPI00283531.4	25653	NQREAAQMDMVNDGVEDLRGK	793.0398	3	54	y8	33.8	87.8
175	IPI00283531.4	25653	PFETLLSQNQQGK	709.8715	2	82	y8	12.9	94.9
176	IPI00283531.4	25653	SLGLYGK	369.2132	2	16	y5	41.0	57.0
177	IPI00283531.4	25653	SLGLYGK	737.4191	1	20		0.0	20.0
178	IPI00283531.4	25653	SLGLYGK	369.2132	2	21	y5	41.0	62.0
179	IPI00283531.4	25653	SLGLYGK	737.4214	1	27		0.0	27.0
180	IPI00283531.4	25653	YVTLIYTNYENGK	789.3951	2	17	y8	73.4	90.4
181	IPI00283531.4	25653	YVTLIYTNYENGK	789.8864	2	21		0.0	21.0
182	IPI00283531.4	25653	YVTLIYTNYENGK	789.8862	2	36		0.0	36.0
183	IPI00283531.4	25653	YVTLIYTNYENGKNDYVK	733.3661	3	23		0.0	23.0
184	IPI00283531.4	25653	YVTLIYTNYENGKNDYVK	733.3661	3	25	b5	27.2	52.2
185	IPI00283531.4	25653	YVTLIYTNYENGKNDYVK	733.6947	3	50		0.0	50.0
186	IPI00283531.4	25653	YVTLIYTNYENGKNDYVK	1100.0393	2	59	y7	35.8	94.8
187	IPI00283531.4	25653	YVTLIYTNYENGKNDYVK	1099.5481	2	79	y7	25.4	104.4
188	IPI00323816.2	56229	DGFNPAHVEAGLYGSR	563.9383	3	45	y4	38.2	83.2
189	IPI00323816.2	56229	GSFVLLDGETFEVK	770.8984	2	36	y8	32.0	68.0
190	IPI00323816.2	56229	GTWEKPGGASPMGYDFWYQPR	811.0382	3	26	y4	15.6	41.6
191	IPI00323816.2	56229	GTWEKPGGASPMGYDFWYQPR	811.0382	3	32	c b10 P	18.3	50.3
192	IPI00323816.2	56229	HEIIQTLQMTDGLIPLEIR	741.0743	3	34	b6	1.4	35.4
193	IPI00323816.2	56229	HEIIQTLQMTDGLIPLEIR	1111.1101	2	59	y8	21.2	80.2
194	IPI00323816.2	56229	HNVMVSTEWAAAPNVFK	610.6380	3	20	y6	69.8	89.8
195	IPI00323816.2	56229	HNVMVSTEWAAAPNVFK	915.9563	2	63	c b8	5.4	68.4
196	IPI00323816.2	56229	HNVMVSTEWAAAPNVFK	915.4540	2	80	P y5	62.3	142.3
197	IPI00323816.2	56229	HNVMVSTEWAAAPNVFK	915.9530	2	90	c b8	22.4	112.4
198	IPI00323816.2	56229	IFVWDWQR	575.2971	2	33	y6	49.6	82.6
199	IPI00323816.2	56229	IFVWDWQR	575.2954	2	37	y6	65.2	102.2
200	IPI00323816.2	56229	IYVVDVGSEPR	617.3288	2	64	y9	27.7	91.7
201	IPI00323816.2	56229	IYVVDVGSEPR	617.3288	2	66	y5	29.5	95.5
202	IPI00323816.2	56229	IYVVDVGSEPR	617.3287	2	71	y5	41.0	112.0

203	IPI00323816.2	56229	LILPGLMSSR	543.8204	2	40	P y7	61.4	101.4
204	IPI00323816.2	56229	LNPNFLVDFGKEPLGPALAEHLR	850.1289	3	37	P y8	30.4	67.4
205	IPI00323816.2	56229	LNPNFLVDFGKEPLGPALAEHLR	850.1288	3	43	P y8	33.8	76.8
206	IPI00323816.2	56229	LNPNFLVDFGKEPLGPALAEHLR	850.1318	3	53		0.0	53.0
207	IPI00323816.2	56229	LPMPYLK	431.2486	2	21	P y6	38.2	59.2
208	IPI00323816.2	56229	LPMPYLK	431.2494	2	25	P y6	69.8	94.8
209	IPI00323816.2	56229	NEEGTWSVEK	589.7704	2	35	y7	22.4	57.4
210	IPI00323816.2	56229	NEEGTWSVEK	589.7705	2	36	y8	58.1	94.1
211	IPI00323816.2	56229	NTGTEAPDYLATVDVDPK	953.9603	2	59	y5	14.6	73.6
212	IPI00323816.2	56229	NTGTEAPDYLATVDVDPK	953.9604	2	60		0.0	60.0
213	IPI00323816.2	56229	NTGTEAPDYLATVDVDPK	953.9602	2	72		0.0	72.0
214	IPI00323816.2	56229	NTGTEAPDYLATVDVDPK	953.9602	2	75		0.0	75.0
215	IPI00323816.2	56229	PGGASPMGYDFWYQPR	915.4128	2	55	y4	29.5	84.5
216	IPI00323816.2	56229	PGGASPMGYDFWYQPR	915.4095	2	56		0.0	56.0
217	IPI00323816.2	56229	PGGASPMGYDFWYQPR	915.4094	2	68	y6	33.8	101.8
218	IPI00323816.2	56229	PGGASPMGYDFWYQPR	914.9068	2	99	y6	46.8	145.8
219	IPI00323816.2	56229	QFYPLIR	526.2830	2	27	P y5	65.2	92.2
220	IPI00323816.2	56229	QYDISNPQK	546.7707	2	34	y5	15.6	49.6
221	IPI00323816.2	56229	QYDISNPQKPR	449.2342	3	17		0.0	17.0
222	IPI00323816.2	56229	QYDISNPQKPR	673.3469	2	41	P y5	38.2	79.2
223	IPI00323816.2	56229	RIPGGPQMIQLSLDGK	570.6546	3	33	y7	14.6	47.6
224	IPI00323816.2	56229	RIPGGPQMIQLSLDGK	570.6510	3	50	y5	38.2	88.2
225	IPI00323816.2	56229	RIPGGPQMIQLSLDGK	855.4728	2	72	b8	19.2	91.2
226	IPI00323816.2	56229	SPQYSQVIHR	405.5477	3	50	y4	27.2	77.2
227	IPI00323816.2	56229	SPQYSQVIHR	607.8179	2	61		0.0	61.0
228	IPI00323816.2	56229	VIQVPSKK	449.7900	2	20	P y4	49.1	69.1
229	IPI00153317.2	100088	ADPLGLEAEK	521.7748	2	37	P y8	58.1	95.1
230	IPI00153317.2	100088	AGLILFGNDDR	595.8141	2	39	y6	38.2	77.2
231	IPI00153317.2	100088	ALYVSDK	398.2164	2	22	y5	89.0	111.0
232	IPI00153317.2	100088	ALYVSDK	795.4279	1	23	c b4	16.9	39.9
233	IPI00153317.2	100088	ANATEFGLASGVFTR	770.8915	2	17	y5	15.6	32.6
234	IPI00153317.2	100088	ANATEFGLASGVFTR	514.2641	3	49		0.0	49.0
235	IPI00153317.2	100088	ANATEFGLASGVFTR	771.3925	2	60	y5	27.2	87.2
236	IPI00153317.2	100088	ARGQALPEVVAK	413.5786	3	16	P y6	95.7	111.7
237	IPI00153317.2	100088	ARGQALPEVVAK	619.8653	2	42	c b8	21.2	63.2
238	IPI00153317.2	100088	AVQMGMSVFFNK	723.8502	2	43	y4	44.5	87.5
239	IPI00153317.2	100088	AVQMGMSVFFNK	723.3489	2	49		0.0	49.0
240	IPI00153317.2	100088	DGVPVFK	381.2133	2	19		0.0	19.0
241	IPI00153317.2	100088	DGVPVFK	761.4246	1	27		0.0	27.0
242	IPI00153317.2	100088	DLGEAALNEYLR	682.3543	2	69	y7	23.8	92.8
243	IPI00153317.2	100088	EAFENLWGK	575.7808	2	25		0.0	25.0

244	IPI00153317.2	100088	EGHEVGVFTIPDK	509.5997	3	25	y6	61.4	86.4
245	IPI00153317.2	100088	EGHEVGVFTIPDKDGK	609.6493	3	15	P y6	62.3	77.3
246	IPI00153317.2	100088	ETAMINWDQPAEAIHNWIR	766.0370	3	15		0.0	15.0
247	IPI00153317.2	100088	ETAMINWDQPAEAIHNWIR	766.0395	3	31		0.0	31.0
248	IPI00153317.2	100088	ETAMINWDQPAEAIHNWIR	1148.5544	2	47	y7	5.6	52.6
249	IPI00153317.2	100088	FADGDVDAVLSR	632.8124	2	68		0.0	68.0
250	IPI00153317.2	100088	FAELTLK	411.2424	2	33	y6	69.8	102.8
251	IPI00153317.2	100088	FLFPEGIK	475.7714	2	25	y6	61.4	86.4
252	IPI00153317.2	100088	GMVQAVR	380.7104	2	26	y5	49.6	75.6
253	IPI00153317.2	100088	GQALPEVVAK	506.2953	2	23	P y6	95.7	118.7
254	IPI00153317.2	100088	GVVNILPGSGSLVGQR	518.2982	3	48	y4	44.5	92.5
255	IPI00153317.2	100088	HGSIIYHPSLLPR	497.2806	3	30	P y6	53.0	83.0
256	IPI00153317.2	100088	HGSIIYHPSLLPR	497.2807	3	34	P y6	69.8	103.8
257	IPI00153317.2	100088	HRGASAINWTLIHGDK	888.9696	2	21	y4	29.5	50.5
258	IPI00153317.2	100088	HRGASAINWTLIHGDK	444.7379	4	31		0.0	31.0
259	IPI00153317.2	100088	HRGASAINWTLIHGDK	592.6500	3	45	y7	65.2	110.2
260	IPI00153317.2	100088	IGFTGSTEVGK	548.2889	2	47	y7	46.8	93.8
261	IPI00153317.2	100088	IGNPLDRDTNHGPNHEAHLRK	840.7614	3	21	c b8	21.2	42.2
262	IPI00153317.2	100088	ILPNVPEVEDSTDFFK	925.4638	2	41	c b5 P	44.5	85.5
263	IPI00153317.2	100088	IQGATIPINQARPNR	550.3131	3	24		0.0	24.0
264	IPI00153317.2	100088	IQGATIPINQARPNR	550.6472	3	26	P y++9	25.4	51.4
265	IPI00153317.2	100088	KETAMINWDQPAEAIHNWIR	808.7374	3	51	y++12	11.0	62.0
266	IPI00153317.2	100088	KETAMINWDQPAEAIHNWIR	808.7374	3	66	y4	32.3	98.3
267	IPI00153317.2	100088	KGGFTIFWADDGLDTGDLQK	804.4172	3	16		0.0	16.0
268	IPI00153317.2	100088	KGGFTIFWADDGLDTGDLQK	804.4147	3	19	y4	44.5	63.5
269	IPI00153317.2	100088	KGGFTIFWADDGLDTGDLQK	804.4145	3	33	y4	44.5	77.5
270	IPI00153317.2	100088	KLTLQMPYQLFIGGEFVDAEGAK	852.7773	3	31	y6	38.2	69.2
271	IPI00153317.2	100088	KLTLQMPYQLFIGGEFVDAEGAK	852.7776	3	32		0.0	32.0
272	IPI00153317.2	100088	KLTLQMPYQLFIGGEFVDAEGAK	852.7776	3	36	y6	49.6	85.6
273	IPI00153317.2	100088	KLTLQMPYQLFIGGEFVDAEGAK	852.7804	3	37	y8	33.8	70.8
274	IPI00153317.2	100088	KLTLQMPYQLFIGGEFVDAEGAK	852.7775	3	38	y7	35.8	73.8
275	IPI00153317.2	100088	KVSLELGGK	310.8589	3	16	c b5	6.2	22.2
276	IPI00153317.2	100088	KVSLELGGK	465.7843	2	30	y7	49.6	79.6
277	IPI00153317.2	100088	LADLMEQHQEELATIEALDAGAVYTLALK	1053.2150	3	16	y9	5.2	21.2
278	IPI00153317.2	100088	LADLMEQHQEELATIEALDAGAVYTLALK	1053.5399	3	16	y9	5.2	21.2
279	IPI00153317.2	100088	LADLMEQHQEELATIEALDAGAVYTLALK	1053.5460	3	17	y8	12.9	29.9
280	IPI00153317.2	100088	LADLMEQHQEELATIEALDAGAVYTLALK	1053.2037	3	17	y9	20.1	37.1
281	IPI00153317.2	100088	LADLMEQHQEELATIEALDAGAVYTLALK	1053.2137	3	17	y9	12.2	29.2
282	IPI00153317.2	100088	LADLMEQHQEELATIEALDAGAVYTLALK	1053.2091	3	17		0.0	17.0
283	IPI00153317.2	100088	LADLMEQHQEELATIEALDAGAVYTLALK	1053.5453	3	20	y9	20.1	40.1
284	IPI00153317.2	100088	LADLMEQHQEELATIEALDAGAVYTLALK	1053.2137	3	23	y9	12.9	35.9

285	IPI00153317.2	100088	LADLMEQHQEELATIEALDAGAVYTLALK	1053.2030	3	28	y6	27.2	55.2
286	IPI00153317.2	100088	LADLMEQHQEELATIEALDAGAVYTLALK	1053.2096	3	38	y9	30.4	68.4
287	IPI00153317.2	100088	LADLMEQHQEELATIEALDAGAVYTLALK	1053.2143	3	45	y9	12.9	57.9
288	IPI00153317.2	100088	LADLMEQHQEELATIEALDAGAVYTLALK	1053.2141	3	46	y5	18.5	64.5
289	IPI00153317.2	100088	LADLMEQHQEELATIEALDAGAVYTLALK	1053.2142	3	49		0.0	49.0
290	IPI00153317.2	100088	LFVEDSIHDQFVQK	568.9578	3	17		0.0	17.0
291	IPI00153317.2	100088	LIAEGTAPR	464.2668	2	52	y5	25.4	77.4
292	IPI00153317.2	100088	LQAGTVFVNTYNK	727.8902	2	58	y7	38.2	96.2
293	IPI00153317.2	100088	LSDHPDVR	313.4945	3	19		0.0	19.0
294	IPI00153317.2	100088	LSDHPDVR	469.7382	2	25	c b6	25.4	50.4
295	IPI00153317.2	100088	LSDHPDVRK	533.7855	2	25	c b6	38.2	63.2
296	IPI00153317.2	100088	LSDHPDVRK	356.1928	3	35	c b6	27.2	62.2
297	IPI00153317.2	100088	LTFFNSTLNTSGLVAQGEALPIPGAHRPGLVTK	852.9668	4	19		0.0	19.0
298	IPI00153317.2	100088	LTFFNSTLNTSGLVAQGEALPIPGAHRPGLVTK	852.7187	4	22	y++18	27.0	49.0
299	IPI00153317.2	100088	LTFFNSTLNTSGLVAQGEALPIPGAHRPGLVTK	852.9673	4	24		0.0	24.0
300	IPI00153317.2	100088	LTFFNSTLNTSGLVAQGEALPIPGAHRPGLVTK	852.7162	4	26		0.0	26.0
301	IPI00153317.2	100088	LTFFNSTLNTSGLVAQGEALPIPGAHRPGLVTK	852.7190	4	34		0.0	34.0
302	IPI00153317.2	100088	LVEEVK	358.7132	2	25		0.0	25.0
303	IPI00153317.2	100088	LVEEVK	716.4193	1	26	y4	41.0	67.0
304	IPI00153317.2	100088	MMPASQFFK	543.7593	2	21		0.0	21.0
305	IPI00153317.2	100088	NIQLEDGK	458.7405	2	21	y5	53.0	74.0
306	IPI00153317.2	100088	NLTLTK	345.2131	2	18		0.0	18.0
307	IPI00153317.2	100088	NLTLTK	689.4196	1	26		0.0	26.0
308	IPI00153317.2	100088	PAQVTPLTALK	569.8454	2	30	y8	44.3	74.3
309	IPI00153317.2	100088	PGFFFQPTVFTDVEDHMYIAK	830.7338	3	31	c b6 P	27.2	58.2
310	IPI00153317.2	100088	PGFFFQPTVFTDVEDHMYIAK	830.7336	3	38	b4	9.6	47.6
311	IPI00153317.2	100088	RPQPEEGATYEGIQK	568.2854	3	39	y6	46.8	85.8
312	IPI00153317.2	100088	RPQPEEGATYEGIQK	610.9833	3	56	c b8	32.0	88.0
313	IPI00153317.2	100088	TDVAAPFGGFK	555.2854	2	25	P y6	61.4	86.4
314	IPI00153317.2	100088	THVGMSIQTFR	426.2207	3	19		0.0	19.0
315	IPI00153317.2	100088	THVGMSIQTFR	638.8274	2	29	y8	21.2	50.2
316	IPI00153317.2	100088	VSLELGK	401.7370	2	31	y6	61.4	92.4
317	IPI00153317.2	100088	VVEEVGK	380.2165	2	17		0.0	17.0
318	IPI00314298.3	56128	GTWEKPGDAAPMGYDFWYQPR	825.0411	3	20	y4	29.5	49.5
319	IPI00314298.3	56128	GTWEKPGDAAPMGYDFWYQPR	825.0409	3	33	y5	38.2	71.2
320	IPI00314298.3	56128	HEIIQTLQMTDGLIPLEIR	1111.1098	2	78	y8	44.3	122.3
321	IPI00314298.3	56128	LILPGLISSR	534.8424	2	31	P y7	57.1	88.1
322	IPI00314298.3	56128	LILPGLISSR	534.8424	2	34	P y7	33.8	67.8
323	IPI00314298.3	56128	NAEGTWSVEK	560.7663	2	37		0.0	37.0
324	IPI00314298.3	56128	PGDAAPMGYDFWYQPR	936.4154	2	50	y6	33.8	83.8
325	IPI00314298.3	56128	PGDAAPMGYDFWYQPR	936.4156	2	58	y6	46.8	104.8

326	IPI00314298.3	56128	RIPGGPQMIQLSLDGK	855.4727	2	62	c b9	12.9	74.9
327	IPI00110042.1	52889	QYDISNPQKPR	673.3493	2	42	P y5	75.6	117.6
328	IPI00110042.1	52889	VIEASEIQAK	1087.5962	1	34	y4	44.5	78.5
329	IPI00110042.1	52889	VIEASEIQAK	544.3040	2	54	y8	58.1	112.1
330	IPI00110042.1	52889	VIEASEIQAK	544.3041	2	59	y8	73.4	132.4
331	IPI00110042.1	52889	VIQVPSK	385.7424	2	33	y4	57.1	90.1
332	IPI00133456.1	33899	DGLNAEGLLR	529.2856	2	53	y4	16.9	69.9
333	IPI00133456.1	33899	DGLNAEGLLRQPDAGNIFK	1015.0300	2	37		0.0	37.0
334	IPI00133456.1	33899	FNDGKVDPAGR	588.2916	2	42	P y4	62.3	104.3
335	IPI00133456.1	33899	FNDGKVDPAGR	392.5318	3	44		0.0	44.0
336	IPI00133456.1	33899	HQGSLSLFPDHSVK	572.2897	3	28	P y6	25.4	53.4
337	IPI00133456.1	33899	HQGSLSLFPDHSVK	572.2897	3	30	P y6	57.1	87.1
338	IPI00133456.1	33899	HQGSLSLFPDHSVK	857.9312	2	64	y4	16.9	80.9
339	IPI00133456.1	33899	HQGSLSLFPDHSVKK	461.7435	4	19	b5	16.9	35.9
340	IPI00133456.1	33899	HQGSLSLFPDHSVKK	614.9879	3	27	P y7	53.0	80.0
341	IPI00133456.1	33899	HQGSLSLFPDHSVKK	461.4930	4	29	b5	16.9	45.9
342	IPI00133456.1	33899	IFYIDSLSYTVDAFDYDLQGTGQISNRR	1122.5356	3	35		0.0	35.0
343	IPI00133456.1	33899	IFYIDSLSYTVDAFDYDLQGTGQISNRR	1122.5429	3	38	y++10	0.9	38.9
344	IPI00133456.1	33899	IFYIDSLSYTVDAFDYDLQGTGQISNRR	1122.2140	3	45		0.0	45.0
345	IPI00133456.1	33899	IFYIDSLSYTVDAFDYDLQGTGQISNRR	1122.5439	3	48	y++13	4.7	52.7
346	IPI00133456.1	33899	IFYIDSLSYTVDAFDYDLQGTGQISNRR	1122.5443	3	49	y++14	11.0	60.0
347	IPI00133456.1	33899	IFYIDSLSYTVDAFDYDLQGTGQISNRR	1122.5493	3	51		0.0	51.0
348	IPI00133456.1	33899	IFYIDSLSYTVDAFDYDLQGTGQISNRR	1122.2162	3	61		0.0	61.0
349	IPI00133456.1	33899	IFYIDSLSYTVDAFDYDLQGTGQISNRR	1122.2146	3	64		0.0	64.0
350	IPI00133456.1	33899	IFYIDSLSYTVDAFDYDLQGTGQISNRR	1122.2085	3	69	b5	16.9	85.9
351	IPI00133456.1	33899	IFYIDSLSYTVDAFDYDLQGTGQISNRR	1122.2150	3	72	y++17	40.5	112.5
352	IPI00133456.1	33899	IFYIDSLSYTVDAFDYDLQGTGQISNRR	1122.2197	3	74	y++12	11.6	85.6
353	IPI00133456.1	33899	IFYIDSLSYTVDAFDYDLQGTGQISNRR	1122.2098	3	82		0.0	82.0
354	IPI00133456.1	33899	ITGLGVK	687.4411	1	33		0.0	33.0
355	IPI00133456.1	33899	KYFDQVDISNGLDWSLDHK	761.3650	3	36	y++9	35.8	71.8
356	IPI00133456.1	33899	KYFDQVDISNGLDWSLDHK	761.0358	3	48	y7	11.6	59.6
357	IPI00133456.1	33899	KYFDQVDISNGLDWSLDHK	761.0357	3	49	c b7	12.9	61.9
358	IPI00133456.1	33899	NNRFNDGK	482.7340	2	30	c b6	15.6	45.6
359	IPI00133456.1	33899	NNRFNDGKVDPAGR	520.5946	3	17	P y4	29.5	46.5
360	IPI00133456.1	33899	NNRFNDGKVDPAGR	390.6976	4	19	P y4	15.6	34.6
361	IPI00133456.1	33899	NNRFNDGKVDPAGR	780.3922	2	25	P y4	49.1	74.1
362	IPI00133456.1	33899	QLGGYVATIGTK	604.3376	2	28		0.0	28.0
363	IPI00133456.1	33899	RLQTVKLPVDK	432.9384	3	35	c b5	7.7	42.7
364	IPI00133456.1	33899	VAVDAPVSSVALR	642.3700	2	54	P y8	20.1	74.1
365	IPI00133456.1	33899	VAVDAPVSSVALR	642.3745	2	72	P y8	44.3	116.3
366	IPI00133456.1	33899	VIRLDPETGK	376.5521	3	35		0.0	35.0

367	IPI00133456.1	33899	VIRLDPETGK	564.3243	2	49	c b5 P	38.2	87.2
368	IPI00133456.1	33899	WDTVSNQVQR	616.8052	2	51	y6	57.1	108.1
369	IPI00133456.1	33899	WDTVSNQVQR	616.8053	2	56	y6	53.0	109.0
370	IPI00133456.1	33899	YFAGTMAEETAPAVLER	928.4503	2	91		0.0	91.0
371	IPI00285029.1	274994	AGLYGLPK	409.7420	2	28		0.0	28.0
372	IPI00285029.1	274994	ALIAEATK	408.7453	2	26	y6	82.7	108.7
373	IPI00285029.1	274994	DGAWGAFR	440.2091	2	37	y4	20.6	57.6
374	IPI00285029.1	274994	DNLEFFLTNLGK	705.8677	2	75	y5	53.0	128.0
375	IPI00285029.1	274994	EDTQVADVTTSR	661.3150	2	66	y7	46.8	112.8
376	IPI00285029.1	274994	FDASFFGVHPK	626.3165	2	43	y6	25.4	68.4
377	IPI00285029.1	274994	FDASFFGVHPK	417.8766	3	43	y++10	61.4	104.4
378	IPI00285029.1	274994	FLEIGKFDLSNNHPLGMAIFLK	835.7855	3	37		0.0	37.0
379	IPI00285029.1	274994	GGNVGINSFGFGGSNVHVILQPNTNTR	848.4374	3	19		0.0	19.0
380	IPI00285029.1	274994	GNAGQTNYGANSTMER	909.3966	2	81	y7	12.9	93.9
381	IPI00285029.1	274994	GYTVLGVETR	525.7834	2	50	y6	14.6	64.6
382	IPI00285029.1	274994	HDLVMNVYR	573.7899	2	30	y7	33.8	63.8
383	IPI00285029.1	274994	HFQLEQDKPK	423.8914	3	34	y5	15.6	49.6
384	IPI00285029.1	274994	HFQLEQDKPK	635.3333	2	37	c b7	46.8	83.8
385	IPI00285029.1	274994	IPALLNTQPMLQLEYTATDRHPQALK	741.6528	4	31		0.0	31.0
386	IPI00285029.1	274994	IPALLNTQPMLQLEYTATDRHPQALK	741.6504	4	32	b8 P	13.7	45.7
387	IPI00285029.1	274994	IPALLNTQPMLQLEYTATDRHPQALK	988.5324	3	33		0.0	33.0
388	IPI00285029.1	274994	LLLPEDPLISGLLNSQALK	1018.0975	2	30	y6	6.6	36.6
389	IPI00285029.1	274994	LLLPEDPLISGLLNSQALK	679.0674	3	40	y6	62.3	102.3
390	IPI00285029.1	274994	LLLPEDPLISGLLNSQALK	1018.0972	2	54	y6	27.2	81.2
391	IPI00285029.1	274994	LPESENLQEFWANLIGGVDMVTDDDRR	1041.1648	3	68	y++16	15.5	83.5
392	IPI00285029.1	274994	LPESENLQEFWANLIGGVDMVTDDDRR	1040.8347	3	83		0.0	83.0
393	IPI00285029.1	274994	LQVVDRPLPVR	646.3952	2	18	P y5	49.6	67.6
394	IPI00285029.1	274994	QAHTMDPQLR	399.5332	3	20		0.0	20.0
395	IPI00285029.1	274994	QAPAPTAHAALPHLLHASGR	504.7778	4	18		0.0	18.0
396	IPI00285029.1	274994	QFLDVEHSK	551.7806	2	25		0.0	25.0
397	IPI00285029.1	274994	RAYLQAR	439.2542	2	28	y6	35.8	63.8
398	IPI00285029.1	274994	RVYATILNAGTNTDGSK	890.9642	2	83	c b7	18.5	101.5
399	IPI00285029.1	274994	SDEAVKPLGVK	571.8251	2	46	P y5	83.9	129.9
400	IPI00285029.1	274994	SLGLSLEETPVVFENVSFHQATILPK	952.8474	3	27	y++10	1.3	28.3
401	IPI00285029.1	274994	SLGLSLEETPVVFENVSFHQATILPK	952.8477	3	37		0.0	37.0
402	IPI00285029.1	274994	SLGLSLEETPVVFENVSFHQATILPK	952.8441	3	41		0.0	41.0
403	IPI00285029.1	274994	TGTVALEVR	473.2723	2	59	y4	15.6	74.6
404	IPI00285029.1	274994	TLLEGSGLESIIIIHSSLAEPR	817.4489	3	31	y++14	4.7	35.7
405	IPI00285029.1	274994	TLLEGSGLESIIIIHSSLAEPR	817.4492	3	33	b4	20.6	53.6
406	IPI00285029.1	274994	TLLEGSGLESIIIIHSSLAEPR	817.4519	3	48		0.0	48.0
407	IPI00285029.1	274994	VAEVLAGEGHLYSR	500.9325	3	37	y++12	66.6	103.6

408	IPI00285029.1	274994	VFTTVGSAEK	519.7769	2	34	y5	57.1	91.1
409	IPI00285029.1	274994	VHLTGINVNPALFPPVEFPAPR	834.1219	3	18		0.0	18.0
410	IPI00285029.1	274994	VHLTGINVNPALFPPVEFPAPR	834.1219	3	25	y5	8.5	33.5
411	IPI00285029.1	274994	VLEALLPLK	498.3286	2	48	y4	83.9	131.9
412	IPI00285029.1	274994	VLLSLEHG VWAPNLHFHNPNEIPALLDGR	839.9494	4	18	P y7	49.6	67.6
413	IPI00285029.1	274994	VLLSLEHG VWAPNLHFHNPNEIPALLDGR	839.9489	4	21	P y7	23.8	44.8
414	IPI00285029.1	274994	VLVQVREEEPEAVLPGAQPTLISAISK	958.8713	3	22		0.0	22.0
415	IPI00285029.1	274994	VQEVQQVSTNK	630.3330	2	59	c b7	23.8	82.8
416	IPI00285029.1	274994	VSVHIIEGDHR	631.3360	2	24	c b9	30.4	54.4
417	IPI00285029.1	274994	VSVHIIEGDHR	421.2263	3	44	y5	16.9	60.9
418	IPI00285029.1	274994	VYLWEDPNSK	625.8087	2	35	y7	58.1	93.1
419	IPI00285029.1	274994	WLSTSIPEAQWQSSLAR	981.0004	2	44	c b6 P	14.6	58.6
420	IPI00285029.1	274994	YHGNTVLLR	536.7989	2	24	y7	22.4	46.4
421	IPI00111908.4	166872	AFAISGPFNVQFLVK	819.4573	2	46	c b6 P	29.5	75.5
422	IPI00111908.4	166872	AFAISGPFNVQFLVK	819.4574	2	55	y++12	33.8	88.8
423	IPI00111908.4	166872	AMLSTGFK	427.7261	2	16	y6	49.6	65.6
424	IPI00111908.4	166872	ELSEPSSTR	503.2464	2	27	P y5	38.2	65.2
425	IPI00111908.4	166872	EPLFGISTGNIITGLAAGAK	966.0378	2	63	y9	40.2	103.2
426	IPI00111908.4	166872	EVEMDAVGK	489.2343	2	15		0.0	15.0
427	IPI00111908.4	166872	FLGVAEQLHNEGFK	794.9109	2	64	y6	65.2	129.2
428	IPI00111908.4	166872	GQILTMANPIIGNGGAPD TTARDELGLNK	980.1773	3	50		0.0	50.0
429	IPI00111908.4	166872	GQILTMANPIIGNGGAPD TTARDELGLNK	980.1776	3	60	P y++13	18.3	78.3
430	IPI00111908.4	166872	GQNQPVLNITNR	677.3671	2	75	P y8	42.2	117.2
431	IPI00111908.4	166872	GYSFGHPSSVAGEVVFNTGLGGYPEALTDPAYK	1130.2086	3	40	y8	33.8	73.8
432	IPI00111908.4	166872	IEFEGQSVDFVDPNK	862.4105	2	56	y4	44.5	100.5
433	IPI00111908.4	166872	ILESDRK	430.7455	2	21	y4	29.5	50.5
434	IPI00111908.4	166872	ILESDRKEPLFGISTGNIITGLAAGAK	693.8886	4	20		0.0	20.0
435	IPI00111908.4	166872	ILESDRKEPLFGISTGNIITGLAAGAK	693.8887	4	23		0.0	23.0
436	IPI00111908.4	166872	IMGTSPLQIDRAEDR	567.9576	3	17		0.0	17.0
437	IPI00111908.4	166872	LFAEAVQK	453.2583	2	61	y6	82.7	143.7
438	IPI00111908.4	166872	LFATEATSDWLNANNVPATPVAVPSQEQQNPSLSSIRK	1025.5161	4	20		0.0	20.0
439	IPI00111908.4	166872	LNEINEK	430.2300	2	28		0.0	28.0
440	IPI00111908.4	166872	LRDADPILR	534.8124	2	36	c b5 P	38.2	74.2
441	IPI00111908.4	166872	PALVASR	357.2188	2	41	y5	49.6	90.6
442	IPI00111908.4	166872	QADAVYFLPITPQFVTEVIK	1140.6241	2	28	c b8 P	12.2	40.2
443	IPI00111908.4	166872	QADAVYFLPITPQFVTEVIK	1140.6245	2	29	c b8 P	5.6	34.6
444	IPI00111908.4	166872	QADAVYFLPITPQFVTEVIK	1140.6243	2	30		0.0	30.0
445	IPI00111908.4	166872	QNLIAEVSTK	551.8087	2	54		0.0	54.0
446	IPI00111908.4	166872	RFLEEATR	511.2747	2	48	y4	27.2	75.2
447	IPI00111908.4	166872	RLPTLEQPIIPSDYVAIK	685.0618	3	23	P y8	58.1	81.1
448	IPI00111908.4	166872	RLPTLEQPIIPSDYVAIK	685.3952	3	28	b5	14.6	42.6

449	IPI00111908.4	166872	RTSVNVVR	465.7776	2	17	c b7	13.7	30.7
450	IPI00111908.4	166872	SIFSAVLDELK	611.3406	2	54	y6	38.2	92.2
451	IPI00111908.4	166872	SLFHYS	411.7164	2	28	y4	62.3	90.3
452	IPI00111908.4	166872	SVGEVMAIGR	509.7712	2	52	y5	82.7	134.7
453	IPI00111908.4	166872	TAHIVLEDGTK	395.2153	3	31	y5	27.2	58.2
454	IPI00111908.4	166872	TAHIVLEDGTK	592.3203	2	50	y7	49.6	99.6
455	IPI00111908.4	166872	TFEESFQK	508.2406	2	18	y6	49.6	67.6
456	IPI00111908.4	166872	TVLMNPNIASVQTNEVGLK	677.0316	3	32	y7	32.0	64.0
457	IPI00111908.4	166872	TVLMNPNIASVQTNEVGLK	1015.0429	2	71	y8	1.8	72.8
458	IPI00111908.4	166872	TVLMNPNIASVQTNEVGLK	1015.0428	2	76	y8	12.2	88.2
459	IPI00111908.4	166872	VAGLLVLNYSNDYNHWLTK	764.7337	3	20		0.0	20.0
460	IPI00111908.4	166872	VAGLLVLNYSNDYNHWLTK	764.7336	3	27	b6	13.7	40.7
461	IPI00111908.4	166872	VLGTSVESIMATEDR	804.4018	2	86	y5	16.9	102.9
462	IPI00111908.4	166872	VMIGESIDEK	560.7812	2	37	y8	69.8	106.8
463	IPI00111908.4	166872	VPAIYGVDR	545.7983	2	43	c b8	73.4	116.4
464	IPI00111908.4	166872	VSQEHPVLT	412.9030	3	16	y++9	35.8	51.8
465	IPI00111908.4	166872	VSQEHPVLT	618.8519	2	47	P y6	82.7	129.7
466	IPI00380501.2	55131	EAGFPPGVNIVPGYPTAGAAISSHMDVDK	1018.8393	3	21		0.0	21.0
467	IPI00380501.2	55131	EAGFPPGVNIVPGYPTAGAAISSHMDVDK	1018.8392	3	23		0.0	23.0
468	IPI00380501.2	55131	EAGFPPGVNIVPGYPTAGAAISSHMDVDK	1018.8396	3	26	P y++19	4.3	30.3
469	IPI00380501.2	55131	EAGFPPGVNIVPGYPTAGAAISSHMDVDK	1018.8395	3	31		0.0	31.0
470	IPI00380501.2	55131	EAGFPPGVNIVPGYPTAGAAISSHMDVDK	1018.8394	3	33		0.0	33.0
471	IPI00380501.2	55131	EEIFGPVQQIMK	709.8717	2	41	c b8	5.4	46.4
472	IPI00380501.2	55131	EEIFGPVQQIMK	709.8716	2	52	c b8	5.4	57.4
473	IPI00380501.2	55131	ELGEHGLYEYTELK	840.9085	2	38		0.0	38.0
474	IPI00380501.2	55131	GFFVQPTVFSNVTDEMR	987.4732	2	46	b4	23.4	69.4
475	IPI00380501.2	55131	GFFVQPTVFSNVTDEMR	987.4734	2	55	b4	9.6	64.6
476	IPI00380501.2	55131	GFFVQPTVFSNVTDEMR	987.9757	2	57		0.0	57.0
477	IPI00380501.2	55131	GFFVQPTVFSNVTDEMR	987.9754	2	57	y8	33.8	90.8
478	IPI00380501.2	55131	GFFVQPTVFSNVTDEMR	987.9757	2	60	c b4	9.6	69.6
479	IPI00380501.2	55131	GFFVQPTVFSNVTDEMR	987.9761	2	66	c b5 P	62.3	128.3
480	IPI00380501.2	55131	GFFVQPTVFSNVTDEMR	987.9756	2	73	y8	32.0	105.0
481	IPI00380501.2	55131	IFINNEWHNSVSGK	548.9423	3	21	y++13	78.1	99.1
482	IPI00380501.2	55131	IFVEESVYDEFVK	802.3995	2	35	y8	32.0	67.0
483	IPI00380501.2	55131	IFVEESVYDEFVK	802.3997	2	53	y5	83.9	136.9
484	IPI00380501.2	55131	IFVEESVYDEFVK	802.3996	2	57		0.0	57.0
485	IPI00380501.2	55131	IFVEESVYDEFVK	802.3998	2	80	y5	75.6	155.6
486	IPI00380501.2	55131	IHGQTIPSDGDIFTYTR	641.3199	3	54	y5	25.4	79.4
487	IPI00380501.2	55131	IHGQTIPSDGDIFTYTR	640.9880	3	56	y4	27.2	83.2
488	IPI00380501.2	55131	IHGQTIPSDGDIFTYTRR	693.0256	3	15	y++9	7.1	22.1
489	IPI00380501.2	55131	ILDLESKK	372.5607	3	30	y6	36.1	66.1

490	IPI00380501.2	55131	ILDIESGKK	372.5607	3	30	y5	14.6	44.6
491	IPI00380501.2	55131	ILDIESGKK	558.3376	2	40	y8	85.6	125.6
492	IPI00380501.2	55131	KYVLGNPLTPGINQGPQIDKEQHDK	930.8273	3	45	y6	35.8	80.8
493	IPI00380501.2	55131	LADLMER	424.2207	2	45	y5	38.2	83.2
494	IPI00380501.2	55131	LLLATMEALNGGK	666.3660	2	42	b9	12.2	54.2
495	IPI00380501.2	55131	QAFQIGSPWR	595.3095	2	44		0.0	44.0
496	IPI00380501.2	55131	RANNTTYGLAAGLFTK	566.6373	3	24	y6	38.2	62.2
497	IPI00380501.2	55131	RVTLELGGK	486.7958	2	29	c b5	14.6	43.6
498	IPI00380501.2	55131	RVTLELGGK	324.8659	3	36	c b4	6.6	42.6
499	IPI00380501.2	55131	RVTLELGGK	486.7958	2	51	c b5	25.4	76.4
500	IPI00380501.2	55131	SVDDVIK	388.2137	2	28	y5	69.8	97.8
501	IPI00380501.2	55131	SVDDVIK	775.4214	1	38	c b5	29.5	67.5
502	IPI00380501.2	55131	VAFTGSTQVGK	547.7962	2	47	y7	22.4	69.4
503	IPI00380501.2	55131	YVLGNPLTPGINQGPQIDK	1013.0473	2	36		0.0	36.0
504	IPI00380501.2	55131	YVLGNPLTPGINQGPQIDK	1013.0478	2	50		0.0	50.0
505	IPI00221890.4	29633	DIKHDSLQPWSASYDPGSAK	575.5336	4	18	P y5	27.2	45.2
506	IPI00221890.4	29633	DIKHDSLQPWSASYDPGSAK	767.3720	3	20	b5 P	62.3	82.3
507	IPI00221890.4	29633	DIKHDSLQPWSASYDPGSAK	767.3720	3	33	P y5	44.5	77.5
508	IPI00221890.4	29633	DIKHDSLQPWSASYDPGSAK	767.3694	3	52	P y5	38.2	90.2
509	IPI00221890.4	29633	EPMTVSSDQMAK	662.3013	2	27	y7	49.6	76.6
510	IPI00221890.4	29633	EPMTVSSDQMAK	662.2994	2	35	y7	65.2	100.2
511	IPI00221890.4	29633	EWGYASHNGPDHWHELYPIAK	836.7194	3	21		0.0	21.0
512	IPI00221890.4	29633	EWGYASHNGPDHWHELYPIAK	836.7224	3	25	P y4	41.0	66.0
513	IPI00221890.4	29633	GDNQSPIELHTK	669.8377	2	24	P y7	61.4	85.4
514	IPI00221890.4	29633	GEFQILLDALDK	681.3742	2	78	y7	90.2	168.2
515	IPI00221890.4	29633	GEFQILLDALDK	681.3688	2	84	y5	97.9	181.9
516	IPI00221890.4	29633	GEFQILLDALDK	681.3689	2	84	c b5	27.2	111.2
517	IPI00221890.4	29633	GGPLSGPYR	452.2376	2	39	y4	44.5	83.5
518	IPI00221890.4	29633	HDPSLQPWSASYDPGSAK	972.4520	2	30		0.0	30.0
519	IPI00221890.4	29633	HDPSLQPWSASYDPGSAK	648.6378	3	43	c b6 P	22.4	65.4
520	IPI00221890.4	29633	HDPSLQPWSASYDPGSAK	972.4517	2	45		0.0	45.0
521	IPI00221890.4	29633	HDPSLQPWSASYDPGSAK	971.9486	2	48	c b6 P	29.5	77.5
522	IPI00221890.4	29633	HDPSLQPWSASYDPGSAK	648.3068	3	48	c b6 P	27.2	75.2
523	IPI00221890.4	29633	HDPSLQPWSASYDPGSAK	971.9525	2	49	c b6 P	27.2	76.2
524	IPI00221890.4	29633	HDPSLQPWSASYDPGSAK	648.3021	3	56	P y5	29.5	85.5
525	IPI00221890.4	29633	LRQFHLHWGSSDDHGSEHTVDGVK	686.8348	4	27		0.0	27.0
526	IPI00221890.4	29633	QPDGIAVVGIFLK	678.8973	2	16	y8	46.8	62.8
527	IPI00221890.4	29633	QPDGIAVVGIFLK	678.8974	2	16	y8	69.8	85.8
528	IPI00221890.4	29633	QPDGIAVVGIFLK	678.8973	2	17	y8	58.1	75.1
529	IPI00221890.4	29633	QPDGIAVVGIFLK	678.8973	2	18	y8	73.4	91.4
530	IPI00221890.4	29633	QPDGIAVVGIFLK	678.8973	2	21	y8	42.2	63.2

531	IPI00221890.4	29633	QPDGIAVVGIFLK	678.8973	2	26	y8	44.3	70.3
532	IPI00221890.4	29633	SLFSSAENEPVPLVGNWRPPQPVK	916.1506	3	55		0.0	55.0
533	IPI00221890.4	29633	SLFSSAENEPVPLVGNWRPPQPVK	916.1544	3	57	c b9 P	66.6	123.6
534	IPI00221890.4	29633	SLFSSAENEPVPLVGNWRPPQPVK	916.1504	3	60	y++17	9.7	69.7
535	IPI00221890.4	29633	SLFSSAENEPVPLVGNWRPPQPVK	916.1506	3	62	b9 P	40.2	102.2
536	IPI00221890.4	29633	VVFDDTYDR	565.2616	2	40	y7	33.8	73.8
537	IPI00221890.4	29633	VVFDDTYDR	565.2616	2	43	y7	33.8	76.8
538	IPI00221890.4	29633	YAAELHLVHWNPK	395.2113	4	17	y++9	23.8	40.8
539	IPI00221890.4	29633	YAAELHLVHWNPK	395.2112	4	26	y++9	89.0	115.0
540	IPI00221890.4	29633	YAAELHLVHWNPK	526.6124	3	27		0.0	27.0
541	IPI00221890.4	29633	YAAELHLVHWNPK	526.6124	3	29	y5	62.3	91.3
542	IPI00221890.4	29633	YAAELHLVHWNPK	526.6124	3	32	y++8	27.2	59.2
543	IPI00221890.4	29633	YNTFGEALK	521.7636	2	16	y7	21.2	37.2
544	IPI00221890.4	29633	YNTFGEALK	521.7646	2	25	y6	53.0	78.0
545	IPI00221890.4	29633	YNTFGEALKQPDGIAVVGIFLK	794.4342	3	20	y8	32.0	52.0
546	IPI00221890.4	29633	YNTFGEALKQPDGIAVVGIFLK	794.4338	3	24	y8	21.2	45.2
547	IPI00221890.4	29633	YNTFGEALKQPDGIAVVGIFLK	794.4367	3	27	y7	35.8	62.8
548	IPI00221890.4	29633	YNTFGEALKQPDGIAVVGIFLK	794.4334	3	28	y5	49.1	77.1
549	IPI00221890.4	29633	YNTFGEALKQPDGIAVVGIFLK	794.4367	3	34	y5	20.6	54.6
550	IPI00221890.4	29633	YNTFGEALKQPDGIAVVGIFLK	794.4343	3	35	y8	42.2	77.2
551	IPI00230212.3	26067	ADIVENQVMDTR	695.8368	2	72	y8	21.2	93.2
552	IPI00230212.3	26067	FKLGLDFPNLPYLIDGSHK	725.7274	3	47	y6	14.6	61.6
553	IPI00230212.3	26067	GLTHPIR	793.4672	1	19		0.0	19.0
554	IPI00230212.3	26067	HHLDGETEER	676.2985	2	47	y7	46.8	93.8
555	IPI00230212.3	26067	HHLDGETEER	451.2006	3	49	y4	32.3	81.3
556	IPI00230212.3	26067	HHLDGETEERIR	540.9294	3	26	b6	6.6	32.6
557	IPI00230212.3	26067	HHLDGETEERIR	405.9488	4	33	y++10	7.1	40.1
558	IPI00230212.3	26067	IRADIVENQVMDTR	553.9562	3	31	y4	15.6	46.6
559	IPI00230212.3	26067	ISAYMK	356.6885	2	18	y5	62.3	80.3
560	IPI00230212.3	26067	ISAYMK	712.3693	1	30	c b4	1.3	31.3
561	IPI00230212.3	26067	ITQSNAILR	1015.5908	1	20		0.0	20.0
562	IPI00230212.3	26067	ITQSNAILR	508.2987	2	56	y6	53.0	109.0
563	IPI00230212.3	26067	ITQSNAILR	508.2986	2	64	y6	53.0	117.0
564	IPI00230212.3	26067	KHHLDGETEER	740.3457	2	36	y8	46.8	82.8
565	IPI00230212.3	26067	KHHLDGETEER	493.8996	3	79	y5	18.5	97.5
566	IPI00230212.3	26067	KHHLDGETEERIR	583.6273	3	30		0.0	30.0
567	IPI00230212.3	26067	LGLDFPNLPYLIDGSHK	634.0060	3	27	b5 P	7.1	34.1
568	IPI00230212.3	26067	LGLDFPNLPYLIDGSHK	634.0078	3	33	c b5 P	15.6	48.6
569	IPI00230212.3	26067	LGLDFPNLPYLIDGSHK	633.6770	3	34	y++15	54.8	88.8
570	IPI00230212.3	26067	LYSEFLGK	478.7579	2	31	y6	82.7	113.7
571	IPI00230212.3	26067	MAHWSNK	437.2055	2	28	y4	15.6	43.6

572	IPI00230212.3	26067	MLLEYTDSSYDEK	797.3535	2	37		0.0	37.0
573	IPI00230212.3	26067	PMILGYWNVN	624.8310	2	54	y6	27.2	81.2
574	IPI00230212.3	26067	PMILGYWNVN	624.8324	2	59	y6	41.0	100.0
575	IPI00230212.3	26067	RPWFAGDK	488.7536	2	24	c b7	12.9	36.9
576	IPI00230212.3	26067	RYTMGDAPDFDR	481.8829	3	35	c b7 P	12.2	47.2
577	IPI00230212.3	26067	RYTMGDAPDFDR	722.3258	2	45		0.0	45.0
578	IPI00230212.3	26067	RYTMGDAPDFDRSQWLNEK	777.3612	3	20	b6	14.6	34.6
579	IPI00230212.3	26067	RYTMGDAPDFDRSQWLNEK	777.3612	3	22	b6	6.2	28.2
580	IPI00230212.3	26067	SQWLNEK	452.7299	2	21	y5	69.8	90.8
581	IPI00230212.3	26067	VTYVDFLAYDILDQYR	997.9943	2	21	y4	29.5	50.5
582	IPI00230212.3	26067	VTYVDFLAYDILDQYR	998.0033	2	22	y7	13.7	35.7
583	IPI00230212.3	26067	VTYVDFLAYDILDQYR	998.0036	2	25	y7	49.6	74.6
584	IPI00230212.3	26067	VTYVDFLAYDILDQYR	997.9991	2	26	y7	33.8	59.8
585	IPI00230212.3	26067	VTYVDFLAYDILDQYR	997.9988	2	35	y7	12.9	47.9
586	IPI00230212.3	26067	VTYVDFLAYDILDQYR	997.9998	2	36		0.0	36.0
587	IPI00230212.3	26067	VTYVDFLAYDILDQYR	998.0037	2	38	y7	46.8	84.8
588	IPI00230212.3	26067	VTYVDFLAYDILDQYR	997.4993	2	40	y4	62.3	102.3
589	IPI00230212.3	26067	VTYVDFLAYDILDQYR	998.0030	2	47	y7	22.4	69.4
590	IPI00230212.3	26067	VTYVDFLAYDILDQYR	998.0032	2	55	y6	14.6	69.6
591	IPI00230212.3	26067	VTYVDFLAYDILDQYR	665.3348	3	71	y4	62.3	133.3
592	IPI00230212.3	26067	YIATPIFSK	520.2947	2	17	y7	49.6	66.6
593	IPI00230212.3	26067	YIATPIFSK	1039.5833	1	26	P y5	69.8	95.8
594	IPI00230212.3	26067	YIATPIFSK	520.2946	2	33	P y5	75.6	108.6
595	IPI00319994.4	36817	DLADELALVDVMEDK	838.4086	2	50	c b9	32.0	82.0
596	IPI00319994.4	36817	DQLIVNLLK	528.3266	2	43	y5	69.8	112.8
597	IPI00319994.4	36817	FIIPNIVK	472.3027	2	18	P y5	69.8	87.8
598	IPI00319994.4	36817	FIIPNIVK	472.3027	2	18	y6	69.8	87.8
599	IPI00319994.4	36817	GEMMDLQHGSFLK	803.3920	2	58	c b8	2.0	60.0
600	IPI00319994.4	36817	GYTSWAIGLSVADLAESIMK	1056.5390	2	86	y9	30.4	116.4
601	IPI00319994.4	36817	ISGFPK	324.6895	2	24		0.0	24.0
602	IPI00319994.4	36817	LKGEMMDLQHGSFLK	616.3261	3	22	c b7	1.8	23.8
603	IPI00319994.4	36817	LLIVSNPVDILTYVAWK	973.0603	2	21		0.0	21.0
604	IPI00319994.4	36817	LLIVSNPVDILTYVAWK	649.0462	3	37		0.0	37.0
605	IPI00319994.4	36817	LLIVSNPVDILTYVAWK	649.0462	3	38		0.0	38.0
606	IPI00319994.4	36817	LLIVSNPVDILTYVAWK	973.0692	2	71		0.0	71.0
607	IPI00319994.4	36817	LLIVSNPVDILTYVAWK	973.0694	2	77	y4	49.1	126.1
608	IPI00319994.4	36817	LLIVSNPVDILTYVAWK	973.0651	2	80	y7	46.8	126.8
609	IPI00319994.4	36817	LLIVSNPVDILTYVAWK	973.0694	2	81	c b6 P	1.3	82.3
610	IPI00319994.4	36817	LLIVSNPVDILTYVAWK	972.5659	2	92	y7	33.8	125.8
611	IPI00319994.4	36817	LNLVQR	371.7320	2	42	y4	41.0	83.0
612	IPI00319994.4	36817	LVIITAGAR	457.2954	2	46	y5	14.6	60.6

613	IPI00319994.4	36817	LVIITAGAR	457.2954	2	54	y5	38.2	92.2
614	IPI00319994.4	36817	NVNIFK	367.7136	2	26		0.0	26.0
615	IPI00319994.4	36817	NVNIFK	734.4256	1	27	c b4	62.3	89.3
616	IPI00319994.4	36817	QVVDSAYEVIK	625.8371	2	37	y8	61.4	98.4
617	IPI00319994.4	36817	RVHPISTMIK	394.5660	3	25	y5	49.1	74.1
618	IPI00319994.4	36817	RVHPISTMIK	591.3449	2	34	c b8	12.2	46.2
619	IPI00319994.4	36817	SADTLWGIQK	559.7958	2	45	y4	57.1	102.1
620	IPI00319994.4	36817	SLNPELGTADADK	630.3091	2	51	P y9	81.7	132.7
621	IPI00319994.4	36817	SLNPELGTADADKEQWK	610.9676	3	24		0.0	24.0
622	IPI00319994.4	36817	SLNPELGTADADKEQWK	915.9472	2	57		0.0	57.0
623	IPI00319994.4	36817	VTLTPEEEAR	572.7959	2	35	P y6	82.7	117.7
624	IPI00319994.4	36817	YLMGER	768.3717	1	19		0.0	19.0
625	IPI00319994.4	36817	YLMGER	384.6890	2	23	y4	27.2	50.2
626	IPI00314788.3	56487	AEAERDVLFPGYTHLQR	668.0163	3	31	P y++8	62.3	93.3
627	IPI00314788.3	56487	AEMQQILQGLDK	687.3585	2	59	y6	65.2	124.2
628	IPI00314788.3	56487	ALLQAEQEP	435.2400	2	30	c b6	29.5	59.5
629	IPI00314788.3	56487	EFSFVQLSDAYSTGSSLMPQK	1162.0511	2	74	y4	23.4	97.4
630	IPI00314788.3	56487	EFSFVQLSDAYSTGSSLMPQK	1162.0512	2	82	y9	20.1	102.1
631	IPI00314788.3	56487	EFSFVQLSDAYSTGSSLMPQK	1162.0511	2	86	y9	11.0	97.0
632	IPI00314788.3	56487	EFSFVQLSDAYSTGSSLMPQKK	817.7365	3	15	y++16	49.7	64.7
633	IPI00314788.3	56487	ELIGEAAAGK	887.4956	1	43	y6	65.2	108.2
634	IPI00314788.3	56487	FNSSISYDR	544.7537	2	49		0.0	49.0
635	IPI00314788.3	56487	FVGAVDPIMEK	603.3166	2	39	y9	52.8	91.8
636	IPI00314788.3	56487	HLWNVDVQGSK	641.8308	2	49	y8	44.3	93.3
637	IPI00314788.3	56487	KNPDSLELIR	395.5597	3	33		0.0	33.0
638	IPI00314788.3	56487	KNPDSLELIR	592.8356	2	42	P y8	30.4	72.4
639	IPI00314788.3	56487	LHPNDEIHTANER	415.9474	4	23	y++9	5.9	28.9
640	IPI00314788.3	56487	LHPNDEIHTANER	554.2604	3	25	c b7	13.7	38.7
641	IPI00314788.3	56487	LLEVQK	365.2289	2	25	y5	69.8	94.8
642	IPI00314788.3	56487	LLEVQK	729.4510	1	36	y4	29.5	65.5
643	IPI00314788.3	56487	LSALLR	336.7239	2	27	y4	15.6	42.6
644	IPI00314788.3	56487	QALSPDMLATDLAYYLVR	1021.0311	2	49	y7	12.9	61.9
645	IPI00314788.3	56487	QALSPDMLATDLAYYLVR	680.6883	3	54	y5	27.2	81.2
646	IPI00314788.3	56487	QALSPDMLATDLAYYLVR	1020.5272	2	83	y6	16.9	99.9
647	IPI00314788.3	56487	RINVLPPLGSGAIAGNPLGVDR	697.4015	3	38	y8	30.4	68.4
648	IPI00314788.3	56487	RINVLPPLGSGAIAGNPLGVDRELLR	650.8812	4	23		0.0	23.0
649	IPI00314788.3	56487	RINVLPPLGSGAIAGNPLGVDRELLR	867.8375	3	32	b5 P	15.6	47.6
650	IPI00314788.3	56487	RINVLPPLGSGAIAGNPLGVDRELLR	651.1306	4	34		0.0	34.0
651	IPI00314788.3	56487	RINVLPPLGSGAIAGNPLGVDRELLR	867.8382	3	40	b5 P	25.4	65.4
652	IPI00314788.3	56487	SRNDQVVTDLR	434.8970	3	34	y4	15.6	49.6
653	IPI00314788.3	56487	SRNDQVVTDLR	651.8423	2	36	y7	12.9	48.9

654	IPI00314788.3	56487	SSVEWQIR	502.7620	2	48	y5	38.2	86.2
655	IPI00314788.3	56487	VAEWAQGTFK	633.3123	2	57	y6	89.0	146.0
656	IPI00314788.3	56487	VLIGTMVDRAEAERDVLFPGYTHLQR	747.6461	4	17	P y++8	29.5	46.5
657	IPI00319525.1	97825	AKPLTDQEK	536.2879	2	28	P y7	95.7	123.7
658	IPI00319525.1	97825	APNDFNLQDFNVGDYIQAVLDRNLAENISR	1141.5705	3	72		0.0	72.0
659	IPI00319525.1	97825	APNDFNLQDFNVGDYIQAVLDRNLAENISR	1141.9024	3	81	b7	9.6	90.6
660	IPI00319525.1	97825	DGMGTVFDAFPDQVAIQLNDTHPALAIPELMR	1161.9108	3	70	b9	1.6	71.6
661	IPI00319525.1	97825	DIINMLFYHDR	479.5714	3	16		0.0	16.0
662	IPI00319525.1	97825	DRNVATPR	464.7519	2	21	c b6	6.2	27.2
663	IPI00319525.1	97825	FSQFLEK	449.7374	2	36		0.0	36.0
664	IPI00319525.1	97825	HLEIYEINQK	700.3868	2	41	y6	77.6	118.6
665	IPI00319525.1	97825	HLHFTLVK	332.1992	3	26	c b6	1.1	27.1
666	IPI00319525.1	97825	IFVDIEKLPWAK	486.9498	3	30	y++8	0.7	30.7
667	IPI00319525.1	97825	IHSDIVK	406.2374	2	30	c b6	14.6	44.6
668	IPI00319525.1	97825	INPSSMFDVHVK	458.5674	3	23		0.0	23.0
669	IPI00319525.1	97825	INPSSMFDVHVK	687.3553	2	65	P y++10	65.2	130.2
670	IPI00319525.1	97825	IREGWQVEEADDWLR	634.9769	3	33	y5	49.1	82.1
671	IPI00319525.1	97825	IREGWQVEEADDWLR	634.9769	3	34	y5	32.3	66.3
672	IPI00319525.1	97825	IVALFPK	394.2578	2	27		0.0	27.0
673	IPI00319525.1	97825	LHSFVSDDIFLR	483.5897	3	27		0.0	27.0
674	IPI00319525.1	97825	LITSVAEUVNNDPMPVGSK	625.3303	3	42		0.0	42.0
675	IPI00319525.1	97825	LITSVAEUVNNDPMPVGSK	937.4902	2	59	P y6	23.8	82.8
676	IPI00319525.1	97825	LVIDQIDNGFFSPNPDLFK	1154.5881	2	47	P y5	44.5	91.5
677	IPI00319525.1	97825	LVIDQIDNGFFSPNPDLFK	1154.5882	2	50		0.0	50.0
678	IPI00319525.1	97825	LVIDQIDNGFFSPNPDLFK	1154.5882	2	64	P y5	57.1	121.1
679	IPI00319525.1	97825	MSLIEEEGGK	546.7657	2	55	y7	82.7	137.7
680	IPI00319525.1	97825	NLAENISR	458.7458	2	22	y6	38.2	60.2
681	IPI00319525.1	97825	RIHEYKR	334.5264	3	26		0.0	26.0
682	IPI00319525.1	97825	RMSLIEEEGGK	624.8165	2	48	c b8	32.0	80.0
683	IPI00319525.1	97825	TFAYTNHTVLPEALERWPVELVEK	948.5002	3	29		0.0	29.0
684	IPI00319525.1	97825	VDDVAALDK	473.2480	2	40	y7	116.0	156.0
685	IPI00319525.1	97825	VDDVAALDKK	537.2954	2	53	y6	53.0	106.0
686	IPI00319525.1	97825	VIFLENYR	527.2903	2	28	y6	82.7	110.7
687	IPI00319525.1	97825	VIPATDLSEQISTAGTEASGTGNMK	827.0738	3	20	y6	16.9	36.9
688	IPI00319525.1	97825	VIPATDLSEQISTAGTEASGTGNMK	827.0738	3	31	y6	1.4	32.4
689	IPI00319525.1	97825	VSQLYMNQK	555.7834	2	48	y5	69.8	117.8
690	IPI00319525.1	97825	WPVELVEK	500.2797	2	33	y6	65.2	98.2
691	IPI00319525.1	97825	WVDTQVVLLALPYDTPVPGYMNNTVNTMR	1066.1959	3	32	b8	6.6	38.6
692	IPI00319525.1	97825	WVDTQVVLLALPYDTPVPGYMNNTVNTMR	1065.8645	3	41	b8	14.6	55.6
693	IPI00319525.1	97825	YEYGIFNQK	581.2857	2	36	y7	61.4	97.4
694	IPI00110850.1	42052	AGFAGDDAPR	488.7276	2	61	y7	25.4	86.4

695	IPI00110850.1	42052	AVFPSIVGRPR	599.8570	2	34	P y8	0.9	34.9
696	IPI00110850.1	42052	AVFPSIVGRPR	599.8570	2	34	P y8	5.9	39.9
697	IPI00110850.1	42052	DLTDYLMK	998.4878	1	24	y7	61.4	85.4
698	IPI00110850.1	42052	DLTDYLMK	499.7468	2	38	y5	83.9	121.9
699	IPI00110850.1	42052	DLYANTVLSGGTTMYPGIADR	1108.5428	2	64	P y6	53.0	117.0
700	IPI00110850.1	42052	DLYANTVLSGGTTMYPGIADR	1108.5427	2	69	P y6	25.4	94.4
701	IPI00110850.1	42052	DLYANTVLSGGTTMYPGIADR	1108.5427	2	74	P y6	53.0	127.0
702	IPI00110850.1	42052	DLYANTVLSGGTTMYPGIADR	1108.5427	2	84		0.0	84.0
703	IPI00110850.1	42052	EITALAPSTMK	581.3128	2	31	y6	53.0	84.0
704	IPI00110850.1	42052	EITALAPSTMK	581.3128	2	31	P y5	41.0	72.0
705	IPI00110850.1	42052	GYSFTTTAER	566.7675	2	50	y8	2.2	52.2
706	IPI00110850.1	42052	GYSFTTTAEREIVR	543.9458	3	21		0.0	21.0
707	IPI00110850.1	42052	HQGVMVGMGQK	391.1951	3	38	c b5	16.9	54.9
708	IPI00110850.1	42052	HQGVMVGMGQK	586.2891	2	44	y9	66.6	110.6
709	IPI00110850.1	42052	IIAPPER	398.2398	2	24	P y4	27.2	51.2
710	IPI00110850.1	42052	IIAPPERK	462.2877	2	33	y6	38.2	71.2
711	IPI00110850.1	42052	IWHHTFYNELR	505.9213	3	25		0.0	25.0
712	IPI00110850.1	42052	IWHHTFYNELR	505.9213	3	49	y4	41.0	90.0
713	IPI00110850.1	42052	LDLAGR	644.3736	1	26	y4	32.3	58.3
714	IPI00110850.1	42052	LDLAGR	322.6900	2	33	y4	29.5	62.5
715	IPI00110850.1	42052	LDLAGRDLTDYLMK	541.9524	3	23		0.0	23.0
716	IPI00110850.1	42052	QEYDESGPSIVHR	758.8584	2	21		0.0	21.0
717	IPI00110850.1	42052	QEYDESGPSIVHR	506.2393	3	48		0.0	48.0
718	IPI00110850.1	42052	QEYDESGPSIVHRK	548.9382	3	20	y4	16.9	36.9
719	IPI00110850.1	42052	QEYDESGPSIVHRK	411.9548	4	20		0.0	20.0
720	IPI00110850.1	42052	QEYDESGPSIVHRK	548.9382	3	29		0.0	29.0
721	IPI00110850.1	42052	SYELPDGQVITIGNER	895.9501	2	25		0.0	25.0
722	IPI00110850.1	42052	SYELPDGQVITIGNER	896.4515	2	34	y4	16.9	50.9
723	IPI00110850.1	42052	SYELPDGQVITIGNER	895.9501	2	47	y4	16.9	63.9
724	IPI00110850.1	42052	SYELPDGQVITIGNER	895.9501	2	78	y4	29.5	107.5
725	IPI00110850.1	42052	VAPEEHPVLLTEAPLNPK	652.0258	3	19	P y5	97.9	116.9
726	IPI00110850.1	42052	VAPEEHPVLLTEAPLNPK	978.0397	2	29	c b6 P	25.4	54.4
727	IPI00110850.1	42052	VAPEEHPVLLTEAPLNPK	978.0397	2	36		0.0	36.0
728	IPI00323357.1	71055	ARFEELNADLFR	494.2572	3	20		0.0	20.0
729	IPI00323357.1	71055	EIAEAYLGK	497.2668	2	37		0.0	37.0
730	IPI00323357.1	71055	GTLDPVEK	429.7327	2	16	y6	38.2	54.2
731	IPI00323357.1	71055	HWPFMVVNDAGRPK	551.9489	3	27	y++13	27.7	54.7
732	IPI00323357.1	71055	HWPFMVVNDAGRPK	551.9489	3	35	P y++12	81.7	116.7
733	IPI00323357.1	71055	IINEPTAAAIAYGLDK	553.9699	3	36	y5	89.0	125.0
734	IPI00323357.1	71055	IINEPTAAAIAYGLDK	830.4500	2	74	y5	27.2	101.2
735	IPI00323357.1	71055	ITITNDK	402.7268	2	18	y5	69.8	87.8

736	IPI00323357.1	71055	LLQDFFNKG	541.7798	2	44		0.0	44.0
737	IPI00323357.1	71055	LLQDFFNKG	541.2877	2	55	y6	57.1	112.1
738	IPI00323357.1	71055	MVNHFAIEFK	412.5466	3	23	y4	18.5	41.5
739	IPI00323357.1	71055	NQTAEKEEFEHQK	582.6077	3	34		0.0	34.0
740	IPI00323357.1	71055	NQTAEKEEFEHQK	873.4166	2	46	y4	29.5	75.5
741	IPI00323357.1	71055	QTQTFTTYSNQPGLVQVYEGER	925.7805	3	37	y7	33.8	70.8
742	IPI00323357.1	71055	QTQTFTTYSNQPGLVQVYEGER	925.7839	3	40	y5	14.6	54.6
743	IPI00323357.1	71055	RFDDAVVQSDMK	470.8946	3	41	c b6	35.8	76.8
744	IPI00323357.1	71055	RFDDAVVQSDMK	705.8405	2	61	c b4	15.6	76.6
745	IPI00323357.1	71055	RTLSSTQASIEIDSLYEGIDFYTSITR	1052.1968	3	17		0.0	17.0
746	IPI00323357.1	71055	RTLSSTQASIEIDSLYEGIDFYTSITR	1052.1954	3	19	b4	1.3	20.3
747	IPI00323357.1	71055	SFYPEEVSSMVLTK	808.8966	2	53	y++13	18.3	71.3
748	IPI00323357.1	71055	SFYPEEVSSMVLTK	808.8965	2	55	y++13	4.7	59.7
749	IPI00323357.1	71055	SFYPEEVSSMVLTK	808.8964	2	56	y++13	4.8	60.8
750	IPI00323357.1	71055	SINPDEAVAYGAAVQAAILSGDK	1131.0760	2	74		0.0	74.0
751	IPI00323357.1	71055	SQIHDIVLVGGSTR	741.4166	2	74	y5	15.6	89.6
752	IPI00323357.1	71055	STAGDTHLGGEDFDNR	846.3665	2	60	c b8	11.6	71.6
753	IPI00323357.1	71055	TVTNAVVTVPAYFNDSQR	661.6704	3	25	y++12	38.5	63.5
754	IPI00323357.1	71055	TVTNAVVTVPAYFNDSQR	992.0062	2	29		0.0	29.0
755	IPI00323357.1	71055	TVTNAVVTVPAYFNDSQR	991.5020	2	39		0.0	39.0
756	IPI00323357.1	71055	VQVEYKGETK	590.8137	2	38	y8	58.1	96.1
757	IPI00336362.1	55530	EAGFPPGVNIVPGYPTAGGAISSHMDIDK	1018.8394	3	18		0.0	18.0
758	IPI00336362.1	55530	EAGFPPGVNIVPGYPTAGGAISSHMDIDK	1018.8394	3	34	b9	1.3	35.3
759	IPI00336362.1	55530	EEIFGPVQQIMK	709.8716	2	45	c b8	2.0	47.0
760	IPI00336362.1	55530	ILGLIESGKK	353.2254	3	22	y6	36.1	58.1
761	IPI00336362.1	55530	KYILGNPLNSGINQGPQIDK	724.0600	3	49	y6	69.8	118.8
762	IPI00336362.1	55530	LLLATMESMNAGK	689.8575	2	75	y6	82.7	157.7
763	IPI00336362.1	55530	RANNTTYGLAAGVFTK	561.9665	3	20	y5	29.5	49.5
764	IPI00336362.1	55530	TVAMQISQK	503.2740	2	58	y7	95.7	153.7
765	IPI00336362.1	55530	VSFTGSTVEGK	556.2850	2	49	y7	49.6	98.6
766	IPI00336362.1	55530	YILGNPLNSGINQGPQIDK	1021.0429	2	48	y8	19.2	67.2
767	IPI00230440.3	48156	AGIPVFAWK	494.7850	2	46	P y6	75.6	121.6
768	IPI00230440.3	48156	ALDIAENEMPGLMR	780.3818	2	23	P y5	57.1	80.1
769	IPI00230440.3	48156	ALDIAENEMPGLMR	780.8837	2	41	P y5	27.2	68.2
770	IPI00230440.3	48156	DGPLNMILDDGGDLTNIHTK	751.7151	3	28		0.0	28.0
771	IPI00230440.3	48156	DGPLNMILDDGGDLTNIHTK	1127.0659	2	66	y8	22.4	88.4
772	IPI00230440.3	48156	DGPLNMILDDGGDLTNIHTK	1127.0720	2	71		0.0	71.0
773	IPI00230440.3	48156	DGPLNMILDDGGDLTNIHTK	1127.0716	2	77	y5	7.7	84.7
774	IPI00230440.3	48156	EMYSASKPLK	577.2996	2	26	y7	46.8	72.8
775	IPI00230440.3	48156	ESLIDGIK	437.7480	2	36		0.0	36.0
776	IPI00230440.3	48156	HFEQMK	410.1948	2	22	y4	44.5	66.5

777	IPI00230440.3	48156	IILLAEGR	442.7822	2	53	y6	77.6	130.6
778	IPI00230440.3	48156	KLDEAVAEHLGK	460.9209	3	48	y7	65.2	113.2
779	IPI00230440.3	48156	KLDEAVAEHLGK	460.9209	3	57	y7	49.6	106.6
780	IPI00230440.3	48156	KLDEAVAEHLGK	690.8796	2	89	y7	65.2	154.2
781	IPI00230440.3	48156	MREMYSASK	368.1722	3	22	y5	41.0	63.0
782	IPI00230440.3	48156	MREMYSASK	551.7551	2	37	b8	33.8	70.8
783	IPI00230440.3	48156	MREMYSASKPLK	720.8748	2	40	c b7	13.7	53.7
784	IPI00230440.3	48156	MREMYSASKPLK	480.9168	3	50	c b4	29.5	79.5
785	IPI00230440.3	48156	RATDVMIAAGK	531.2924	2	34	c b7	12.2	46.2
786	IPI00230440.3	48156	RATDVMIAAGK	354.5309	3	34	b4	27.2	61.2
787	IPI00230440.3	48156	SDKLPYK	446.7428	2	35		0.0	35.0
788	IPI00230440.3	48156	SDKLPYK	446.7428	2	39	y4	62.3	101.3
789	IPI00230440.3	48156	VADIGLAAWGR	564.8123	2	58	y7	12.9	70.9
790	IPI00230440.3	48156	VADIGLAAWGR	564.8123	2	63	y7	69.8	132.8
791	IPI00230440.3	48156	VADIGLAAWGRK	419.5751	3	34		0.0	34.0
792	IPI00230440.3	48156	VAVVAGYGDVGK	567.8122	2	60	y7	61.4	121.4
793	IPI00230440.3	48156	VNIKPQVDR	356.8772	3	20		0.0	20.0
794	IPI00230440.3	48156	VNIKPQVDRYWLK	553.9848	3	17	y++12	10.5	27.5
795	IPI00230440.3	48156	WLNENAVEK	1102.5532	1	17		0.0	17.0
796	IPI00230440.3	48156	YPQLLSGIR	523.8061	2	41	y7	46.8	87.8
797	IPI00230440.3	48156	YPQLLSGIR	523.8033	2	51	y5	13.7	64.7
798	IPI00230440.3	48156	YPVGVHFLPK	578.8298	2	42	c b8	32.0	74.0
799	IPI00126120.1	24431	DGGQQFTEEFQTLNPMK	985.9517	2	44	y4	49.1	93.1
800	IPI00126120.1	24431	DGGQQFTEEFQTLNPMK	985.4508	2	58	y4	44.5	102.5
801	IPI00126120.1	24431	DGGQQFTEEFQTLNPMK	985.9513	2	72	y4	41.0	113.0
802	IPI00126120.1	24431	DGGQQFTEEFQTLNPMK	985.4509	2	79	y7	1.6	80.6
803	IPI00126120.1	24431	ELLALEVFQVSHPR	546.6388	3	31		0.0	31.0
804	IPI00126120.1	24431	ELLALEVFQVSHPR	819.4569	2	68	y8	32.0	100.0
805	IPI00126120.1	24431	ELLALEVFQVSHPR	819.4570	2	76	y7	35.8	111.8
806	IPI00126120.1	24431	FKVDLSPYPTISHINK	620.3407	3	37	P y8	20.1	57.1
807	IPI00126120.1	24431	IALALK	628.4412	1	28		0.0	28.0
808	IPI00126120.1	24431	IALALK	314.7234	2	34	y5	97.9	131.9
809	IPI00126120.1	24431	IDGITIVQSLAIMEYLEETRPIPR	920.1692	3	22	y++16	8.1	30.1
810	IPI00126120.1	24431	IDGITIVQSLAIMEYLEETRPIPR	920.1692	3	25	b6	1.1	26.1
811	IPI00126120.1	24431	IDGITIVQSLAIMEYLEETRPIPR	920.1658	3	41		0.0	41.0
812	IPI00126120.1	24431	IDGITIVQSLAIMEYLEETRPIPR	920.1690	3	44	y++14	26.5	70.5
813	IPI00126120.1	24431	ILQSTAGK	409.2428	2	30	y5	35.8	65.8
814	IPI00126120.1	24431	ILQSTAGK	817.4809	1	38	y5	25.4	63.4
815	IPI00126120.1	24431	MISDLIASGIQPLQNLVSK	714.4094	3	43	b6	65.2	108.2
816	IPI00126120.1	24431	MISDLIASGIQPLQNLVSK	714.0763	3	47	b9	6.6	53.6
817	IPI00126120.1	24431	MISDLIASGIQPLQNLVSK	1079.1058	2	63	c b6	7.1	70.1

818	IPI00126120.1	24431	MISDLIASGIQPLQNLVSVLK	1071.1083	2	84		0.0	84.0
819	IPI00126120.1	24431	MISDLIASGIQPLQNLVSVLK	1071.1082	2	95		0.0	95.0
820	IPI00126120.1	24431	MQAGKPILYSYFR	808.4173	2	62	y5	1.1	63.1
821	IPI00126120.1	24431	QVGQENQMOWAQK	787.8793	2	36	y4	36.1	72.1
822	IPI00126120.1	24431	RQPDTPAELRT	642.3380	2	20	y7	46.8	66.8
823	IPI00126120.1	24431	RQPDTPAELRT	642.3380	2	22	c b4	29.5	51.5
824	IPI00126120.1	24431	RQPDTPAELRT	428.5622	3	25	c b5 P	25.4	50.4
825	IPI00126120.1	24431	VITSGFNALEK	589.8252	2	50	y9	20.1	70.1
826	IPI00169463.1	50255	ALTVPELTQQMFDK	846.4363	2	34	y5	38.2	72.2
827	IPI00169463.1	50255	ALTVPELTQQMFDK	846.4363	2	49	y4	25.4	74.4
828	IPI00169463.1	50255	AVLVDLEPGTMDSVR	801.4174	2	27	P y8	30.4	57.4
829	IPI00169463.1	50255	AVLVDLEPGTMDSVR	801.4113	2	36	P y8	30.4	66.4
830	IPI00169463.1	50255	AVLVDLEPGTMDSVR	801.4143	2	42	P y8	58.1	100.1
831	IPI00169463.1	50255	EVDEQMLNVQNK	723.8561	2	33	y5	25.4	58.4
832	IPI00169463.1	50255	IMNTFSVVPSPK	660.3591	2	60	y5	41.0	101.0
833	IPI00169463.1	50255	INVYYNEATGGK	664.8299	2	48	y8	66.6	114.6
834	IPI00169463.1	50255	IREEYPDR	359.8493	3	22	c b5 P	14.6	36.6
835	IPI00169463.1	50255	IREEYPDR	539.2700	2	29	c b7	33.8	62.8
836	IPI00169463.1	50255	LAVNMVPFPR	572.3211	2	60	P y4	15.6	75.6
837	IPI00169463.1	50255	LHFFMPGFAPLTSR	540.9506	3	39	P y5	102.5	141.5
838	IPI00169463.1	50255	NSSYFVEWIPNNVK	848.9181	2	58	P y5	53.0	111.0
839	IPI00169463.1	50255	RISEQFTAMFR	462.5716	3	26	y4	41.0	67.0
840	IPI00169463.1	50255	RISEQFTAMFR	693.3528	2	48	c b4	29.5	77.5
841	IPI00169463.1	50255	SGPFGQIFRPDNFVFGQSGAGNNWAK	934.1207	3	39	y9	32.0	71.0
842	IPI00169463.1	50255	SGPFGQIFRPDNFVFGQSGAGNNWAK	933.7877	3	58	y8	6.2	64.2
843	IPI00169463.1	50255	SGPFGQIFRPDNFVFGQSGAGNNWAK	933.7876	3	60	y6	7.1	67.1
844	IPI00169463.1	50255	SGPFGQIFRPDNFVFGQSGAGNNWAK	933.7873	3	72	y8	5.6	77.6
845	IPI00131695.3	70700	ALVSSVR	731.4420	1	16		0.0	16.0
846	IPI00131695.3	70700	ALVSSVR	366.2241	2	33	y5	65.2	98.2
847	IPI00131695.3	70700	APQVSTPTLVEAAR	480.6004	3	35	y4	44.5	79.5
848	IPI00131695.3	70700	APQVSTPTLVEAAR	720.3994	2	40	P y8	58.1	98.1
849	IPI00131695.3	70700	AWAVAR	337.1925	2	28	y4	44.5	72.5
850	IPI00131695.3	70700	AWAVAR	673.3776	1	44		0.0	44.0
851	IPI00131695.3	70700	DVFLGTFLYEYSR	805.4067	2	40	y6	6.6	46.6
852	IPI00131695.3	70700	DVFLGTFLYEYSR	805.3989	2	53		0.0	53.0
853	IPI00131695.3	70700	ENPTTFMGHYLHEVAR	951.9530	2	51	y7	53.0	104.0
854	IPI00131695.3	70700	GLVLIAFSQYLQK	740.9341	2	31		0.0	31.0
855	IPI00131695.3	70700	GLVLIAFSQYLQK	740.9342	2	39	y7	77.6	116.6
856	IPI00131695.3	70700	GLVLIAFSQYLQK	740.9341	2	41		0.0	41.0
857	IPI00131695.3	70700	GLVLIAFSQYLQK	493.9574	3	49	c b6	0.9	49.9
858	IPI00131695.3	70700	KQTALAELVK	550.8379	2	25	y9	30.4	55.4

859	IPI00131695.3	70700	KQTALAEVLK	367.5606	3	57	c b4	9.6	66.6
860	IPI00131695.3	70700	KYEATLEK	491.2668	2	33	y7	102.9	135.9
861	IPI00131695.3	70700	LATDLTK	381.2239	2	31	y6	69.8	100.8
862	IPI00131695.3	70700	LGEYGFQNAILVR	740.3997	2	60	y7	33.8	93.8
863	IPI00131695.3	70700	LGEYGFQNAILVR	740.3998	2	66	y6	41.0	107.0
864	IPI00131695.3	70700	LSQTFPNADFAEITK	841.4228	2	20	c b5 P	15.6	35.6
865	IPI00131695.3	70700	LSQTFPNADFAEITK	841.4229	2	32	c b5 P	6.2	38.2
866	IPI00131695.3	70700	LVQEVTDFAK	575.3114	2	38	y8	44.3	82.3
867	IPI00131695.3	70700	LVQEVTDFAK	575.3113	2	53	y8	33.8	86.8
868	IPI00131695.3	70700	QTALAEVLK	486.7901	2	54	y5	69.8	123.8
869	IPI00131695.3	70700	RHPDYSVSLLLR	485.9404	3	54	y5	57.1	111.1
870	IPI00131695.3	70700	RHPDYSVSLLLR	485.9404	3	62	y5	69.8	131.8
871	IPI00131695.3	70700	SEIAHR	356.6906	2	44	y4	15.6	59.6
872	IPI00131695.3	70700	SEIAHRYNDLGEQHFK	648.6508	3	34	y6	25.4	59.4
873	IPI00131695.3	70700	SLHTLFGDK	509.2724	2	25	y6	89.0	114.0
874	IPI00131695.3	70700	SLHTLFGDK	339.8502	3	27		0.0	27.0
875	IPI00131695.3	70700	SLHTLFGDK	509.2724	2	34	y7	61.4	95.4
876	IPI00131695.3	70700	TPVSEHVTK	333.1821	3	24	y6	29.5	53.5
877	IPI00131695.3	70700	TPVSEHVTK	499.2691	2	50	y6	49.6	99.6
878	IPI00131695.3	70700	YNDLGEQHFK	417.5319	3	16	y++8	41.0	57.0
879	IPI00131695.3	70700	YNDLGEQHFK	625.7944	2	48	y7	33.8	81.8
880	IPI00131695.3	70700	YNDLGEQHFK	625.7944	2	50	y6	57.1	107.1
881	IPI00310669.2	63475	AAPTEPPEAPEATAAGGVTSK	976.4843	2	64	c b9 P	5.4	69.4
882	IPI00310669.2	63475	AILEVLQTQGA	571.8251	2	56	c b6	75.6	131.6
883	IPI00310669.2	63475	AIQGWLK	408.2421	2	28	y4	62.3	90.3
884	IPI00310669.2	63475	ASYISSAQLDQPDGAVAAAAAIFR	807.4158	3	56	y5	29.5	85.5
885	IPI00310669.2	63475	ASYISSAQLDQPDGAVAAAAAIFR	1210.6153	2	73	c b9	11.0	84.0
886	IPI00310669.2	63475	ASYISSAQLDQPDGAVAAAAAIFR	1210.6158	2	76	y5	29.5	105.5
887	IPI00310669.2	63475	AVAQAGTVGTLLIVK	720.9418	2	78	y7	46.8	124.8
888	IPI00310669.2	63475	GRVALLSGGGSGHEPAHAGFIGK	544.5413	4	26	y++12	30.4	56.4
889	IPI00310669.2	63475	LIDAETAK	481.2636	2	43	y7	65.2	108.2
890	IPI00310669.2	63475	LSVLLLR	471.8031	2	52	y4	27.2	79.2
891	IPI00310669.2	63475	MGGSSGALYGLFLTAAQPLK	1027.5414	2	39	y7	14.6	53.6
892	IPI00310669.2	63475	NYTGDRLNFLGLAMEQAK	643.3182	3	18		0.0	18.0
893	IPI00310669.2	63475	QMALVLDR	473.2630	2	33	y4	27.2	60.2
894	IPI00310669.2	63475	SAEAAAATK	474.7355	2	69	y8	95.7	164.7
895	IPI00310669.2	63475	SPGASLLPVLTk	591.8640	2	62	y6	111.9	173.9
896	IPI00310669.2	63475	TDLPTWSAAMDAGLESMQK	1026.9814	2	32	y9	46.8	78.8
897	IPI00310669.2	63475	TMLDSLWAAAQEFQAWK	665.9971	3	33		0.0	33.0
898	IPI00310669.2	63475	TMLDSLWAAAQEFQAWK	666.3281	3	35	c b8	2.0	37.0
899	IPI00310669.2	63475	TMLDSLWAAAQEFQAWK	998.9846	2	50		0.0	50.0

900	IPI00310669.2	63475	TMLDSLWAAQEFQAWK	998.9844	2	56	c b8	12.2	68.2
901	IPI00310669.2	63475	VAGALAEEGMGLLEEITK	859.4375	2	90	y7	82.7	172.7
902	IPI00310669.2	63475	VALLSGGGSGHEPAHAGFIGK	491.2611	4	18	y6	6.2	24.2
903	IPI00310669.2	63475	VALLSGGGSGHEPAHAGFIGK	654.6787	3	20	y++17	78.0	98.0
904	IPI00310669.2	63475	VALRSDLDTLK	615.8555	2	36	c b8	32.0	68.0
905	IPI00310669.2	63475	VSVTGRK	373.7299	2	29	y4	7.7	36.7
906	IPI00134950.1	33110	AHMTLDYTVQVPGTGR	615.6528	3	25	P y5	41.0	66.0
907	IPI00134950.1	33110	AHMTLDYTVQVPGTGR	923.4741	2	53	P y5	15.6	68.6
908	IPI00134950.1	33110	AHMTLDYTVQVPGTGR	922.9694	2	72	c b7	29.5	101.5
909	IPI00134950.1	33110	AWLLGLLR	471.3006	2	41	y6	69.8	110.8
910	IPI00134950.1	33110	AWLLGLLR	471.3006	2	46	y6	53.0	99.0
911	IPI00134950.1	33110	AWLLGLLR	471.3005	2	54	y6	65.2	119.2
912	IPI00134950.1	33110	DGSPGFSK	794.3681	1	16	y7	33.8	49.8
913	IPI00134950.1	33110	DITTSVLTVNNK	652.8562	2	61	y5	57.1	118.1
914	IPI00134950.1	33110	DITTSVLTVNNK	652.8581	2	61	y6	49.6	110.6
915	IPI00134950.1	33110	EPSFDNWWIEEANWLTLDK	1154.0550	2	51		0.0	51.0
916	IPI00134950.1	33110	NIASMVRPGGLLVIDHR	463.0129	4	17		0.0	17.0
917	IPI00134950.1	33110	NIASMVRPGGLLVIDHR	462.7624	4	18		0.0	18.0
918	IPI00134950.1	33110	NIASMVRPGGLLVIDHR	617.0154	3	25	y4	15.6	40.6
919	IPI00134950.1	33110	NIASMVRPGGLLVIDHR	616.6809	3	35	y5	16.9	51.9
920	IPI00134950.1	33110	RKEPSFDNWWIEEANWLTLDK	648.5814	4	24	y4	62.3	86.3
921	IPI00134950.1	33110	RKEPSFDNWWIEEANWLTLDK	648.3298	4	25	y5	62.3	87.3
922	IPI00134950.1	33110	RKEPSFDNWWIEEANWLTLDK	648.5797	4	26	y4	41.0	67.0
923	IPI00134950.1	33110	RKEPSFDNWWIEEANWLTLDK	648.5796	4	30		0.0	30.0
924	IPI00134950.1	33110	RKEPSFDNWWIEEANWLTLDK	648.5797	4	37	y4	83.9	120.9
925	IPI00134950.1	33110	RKEPSFDNWWIEEANWLTLDK	864.4373	3	44	y7	22.4	66.4
926	IPI00134950.1	33110	RKEPSFDNWWIEEANWLTLDK	864.4374	3	66		0.0	66.0
927	IPI00134950.1	33110	RKEPSFDNWWIEEANWLTLDK	864.4372	3	68	y4	49.1	117.1
928	IPI00134950.1	33110	SLGVAAEGLPDQYADGEAAR	995.4746	2	78	c b9 P	12.9	90.9
929	IPI00134950.1	33110	SLGVAAEGLPDQYADGEAAR	995.4778	2	78	c b9 P	44.3	122.3
930	IPI00134950.1	33110	VDSVYR	780.3964	1	16	y4	27.2	43.2
931	IPI00134950.1	33110	VWQLYIGDTR	625.8304	2	56	y8	5.2	61.2
932	IPI00134950.1	33110	VWQLYIGDTR	625.8304	2	65	y6	22.4	87.4
933	IPI00330805.1	50010	MAATFIGNSTAIQELFK	929.9778	2	83	y5	49.1	132.1
934	IPI00330805.1	50010	MAATFIGNSTAIQELFK	929.9779	2	85	y7	22.4	107.4
935	IPI00330805.1	50010	MAATFIGNSTAIQELFK	929.4757	2	88		0.0	88.0
936	IPI00330805.1	50010	MAATFIGNSTAIQELFK	929.9779	2	103	y5	44.5	147.5
937	IPI00111950.1	37423	DIVLVAYSALGSHR	500.9437	3	30	y++9	7.1	37.1
938	IPI00111950.1	37423	ENMQVFEFQLTSEDMDK	988.9413	2	69	y6	53.0	122.0
939	IPI00111950.1	37423	ENMQVFEFQLTSEDMDK	988.4429	2	72	y6	25.4	97.4
940	IPI00111950.1	37423	ENMQVFEFQLTSEDMDK	988.9412	2	75		0.0	75.0

941	IPI00111950.1	37423	GVVVLAK	343.2343	2	23	y4	75.6	98.6
942	IPI00111950.1	37423	HIDSASMYQNEK	474.8828	3	24	y5	69.8	93.8
943	IPI00111950.1	37423	HIDSASMYQNEK	711.8215	2	51	y5	38.2	89.2
944	IPI00111950.1	37423	IADGTVKR	430.2536	2	38	y5	27.2	65.2
945	IPI00111950.1	37423	KYNRTPALIALR	472.6217	3	24		0.0	24.0
946	IPI00111950.1	37423	QLQLDYVDLYLIHFPMAMKPGENYLPK	1080.2218	3	31		0.0	31.0
947	IPI00111950.1	37423	QLQLDYVDLYLIHFPMAMKPGENYLPK	1079.8891	3	41	P y8	21.2	62.2
948	IPI00111950.1	37423	QWVDQSSPVLLDNPVLGSMK	1143.0894	2	66	y6	14.6	80.6
949	IPI00111950.1	37423	QWVDQSSPVLLDNPVLGSMK	1143.0896	2	76	P y8	5.4	81.4
950	IPI00111950.1	37423	QWVDQSSPVLLDNPVLGSMK	1143.0894	2	80	P y8	33.8	113.8
951	IPI00111950.1	37423	QWVDQSSPVLLDNPVLGSMK	1143.0890	2	81	P y8	21.2	102.2
952	IPI00111950.1	37423	REDIFYTSK	579.7935	2	42	c b5	27.2	69.2
953	IPI00111950.1	37423	SIGVSNFNRR	497.2595	2	39	y5	29.5	68.5
954	IPI00111950.1	37423	SIGVSNFNRR	383.8757	3	15	y++8	15.6	30.6
955	IPI00111950.1	37423	SIGVSNFNRR	575.3097	2	21		0.0	21.0
956	IPI00111950.1	37423	SIGVSNFNRR	575.3110	2	25		0.0	25.0
957	IPI00111950.1	37423	TPALIALR	427.7771	2	58	y6	25.4	83.4
958	IPI00111950.1	37423	VLDDLK	408.7271	2	35	y5	53.0	88.0
959	IPI00111950.1	37423	YISGSSFK	444.7269	2	24	y6	25.4	49.4
960	IPI00321617.1	63045	AKPNEVVFLDDFGSNLKPAP	555.0467	4	26	y++9	23.8	49.8
961	IPI00321617.1	63045	AKPNEVVFLDDFGSNLKPAP	740.0608	3	36		0.0	36.0
962	IPI00321617.1	63045	ASDETGFIAVHK	637.8227	2	59	y++10	49.6	108.6
963	IPI00321617.1	63045	ATEIGGILVNTPEDPNLSK	985.0207	2	53	c b10	27.7	80.7
964	IPI00321617.1	63045	ATEIGGILVNTPEDPNLSK	984.5164	2	54	P y5	53.0	107.0
965	IPI00321617.1	63045	AVASLNTPFMPPDPDVSPMK	1058.0221	2	30		0.0	30.0
966	IPI00321617.1	63045	AVASLNTPFMPPDPDVSPMK	1058.0218	2	41		0.0	41.0
967	IPI00321617.1	63045	AVASLNTPFMPPDPDVSPMK	1058.0218	2	43		0.0	43.0
968	IPI00321617.1	63045	AVASLNTPFMPPDPDVSPMK	1058.0225	2	58		0.0	58.0
969	IPI00321617.1	63045	DFLLGAYQTEFPEGPTQLMK	805.7255	3	30		0.0	30.0
970	IPI00321617.1	63045	DFLLGAYQTEFPEGPTQLMK	805.7254	3	34	y++15	21.9	55.9
971	IPI00321617.1	63045	DFLLGAYQTEFPEGPTQLMK	1208.0812	2	50	c b7	5.6	55.6
972	IPI00321617.1	63045	DIVLRPEMSK	594.3274	2	26	c b7	23.8	49.8
973	IPI00321617.1	63045	DMGMVTILVHNTASALR	915.4749	2	57	y8	55.3	112.3
974	IPI00321617.1	63045	EMVTFLDK	491.7498	2	45	y4	29.5	74.5
975	IPI00321617.1	63045	ILVPALMVTAEK	642.8833	2	42	P y9	66.6	108.6
976	IPI00321617.1	63045	ILVPALMVTAEK	642.8833	2	47	P y9	98.0	145.0
977	IPI00321617.1	63045	ITFSQWVPLMDESYRK	1001.0011	2	18		0.0	18.0
978	IPI00321617.1	63045	ITFSQWVPLMDESYRK	667.6708	3	22		0.0	22.0
979	IPI00321617.1	63045	ITFSQWVPLMDESYRK	667.3362	3	27		0.0	27.0
980	IPI00321617.1	63045	ITFSQWVPLMDESYRK	667.6708	3	28	y++13	61.2	89.2
981	IPI00321617.1	63045	ITFSQWVPLMDESYRK	1001.0012	2	35	y5	49.1	84.1

982	IPI00321617.1	63045	ITFSQWVPLMDESYRK	1001.0055	2	36		0.0	36.0
983	IPI00321617.1	63045	SEEALALPR	493.2696	2	36	c b6	14.6	50.6
984	IPI00321617.1	63045	TGFRGPLNWYR	456.2388	3	22	y++9	21.2	43.2
985	IPI00321617.1	63045	VLAIMDK	395.2311	2	30	y5	57.1	87.1
986	IPI00321617.1	63045	WLQTEVQNPSVTSKI	865.9613	2	65	y4	27.2	92.2
987	IPI00321617.1	63045	YQIPALAQAGFR	667.8650	2	38	P y9	110.5	148.5
988	IPI00321617.1	63045	YQIPALAQAGFR	667.8733	2	43	P y9	38.5	81.5
989	IPI00228630.3	37288	AGGLATTGDK	445.7323	2	45	y6	53.0	98.0
990	IPI00228630.3	37288	AGGLATTGDKDILDIVPTEIHQK	798.4294	3	16	P y7	46.8	62.8
991	IPI00228630.3	37288	AGGLATTGDKDILDIVPTEIHQK	598.8236	4	18		0.0	18.0
992	IPI00228630.3	37288	AISSAVR	703.4103	1	23		0.0	23.0
993	IPI00228630.3	37288	AISSAVR	352.2086	2	34	y5	53.0	87.0
994	IPI00228630.3	37288	ANHAPFETDISTLTR	857.9264	2	36	y6	15.6	51.6
995	IPI00228630.3	37288	ANHAPFETDISTLTR	857.9232	2	59	y6	6.2	65.2
996	IPI00228630.3	37288	DFDPAINAYLQR	740.8554	2	27	y6	38.2	65.2
997	IPI00228630.3	37288	DFDPAINAYLQR	494.2439	3	43	c b6	38.2	81.2
998	IPI00228630.3	37288	DFDPAINAYLQRK	804.9043	2	54	y7	22.4	76.4
999	IPI00228630.3	37288	DILDIVPTEIHQK	507.6156	3	29	P y7	33.8	62.8
1000	IPI00228630.3	37288	DILDIVPTEIHQK	760.9195	2	41	P y7	77.6	118.6
1001	IPI00228630.3	37288	FVMEQGR	433.7132	2	37	y5	49.6	86.6
1002	IPI00228630.3	37288	GNIYSLNEGAYK	664.8299	2	50	y6	69.8	119.8
1003	IPI00228630.3	37288	KFPPDGSAPYGAR	454.8985	3	23	P y5	35.8	58.8
1004	IPI00228630.3	37288	KGNIYSLNEGAYK	728.8801	2	58	y8	32.0	90.0
1005	IPI00228630.3	37288	KLDILSNLVLINMLK	577.0026	3	19	y6	89.0	108.0
1006	IPI00228630.3	37288	KLDILSNLVLINMLK	864.9999	2	67	y7	25.4	92.4
1007	IPI00228630.3	37288	KLDILSNLVLINMLK	864.9996	2	77	c b5	38.2	115.2
1008	IPI00228630.3	37288	KLDILSNLVLINMLK	864.9998	2	91	y5	27.2	118.2
1009	IPI00228630.3	37288	QAGIAQLYGIAGSTNVTGDQVK	1096.5700	2	66	y6	6.2	72.2
1010	IPI00228630.3	37288	QAGIAQLYGIAGSTNVTGDQVK	1096.5702	2	95	y6	25.4	120.4
1011	IPI00228630.3	37288	TLVYGGIFLYPANK	778.4283	2	28	P y4	41.0	69.0
1012	IPI00228630.3	37288	TLVYGGIFLYPANK	778.4285	2	28	P y4	44.5	72.5
1013	IPI00228630.3	37288	TLVYGGIFLYPANK	778.4309	2	34	P y4	41.0	75.0
1014	IPI00228630.3	37288	TLVYGGIFLYPANKK	561.9876	3	20		0.0	20.0
1015	IPI00228630.3	37288	YVGSMDIHR	416.5448	3	22		0.0	22.0
1016	IPI00228630.3	37288	YVGSMDIHR	624.3150	2	46	y9	38.5	84.5
1017	IPI00228630.3	37288	YVGSMDIHR	624.3150	2	58	y9	10.5	68.5
1018	IPI00229080.4	83571	ADHGPIGR	476.2364	2	35	P y4	27.2	62.2
1019	IPI00229080.4	83571	ADLNNLGTIAK	621.8572	2	54	y9	19.2	73.2
1020	IPI00229080.4	83571	ALLFIPR	415.2683	2	23	y4	41.0	64.0
1021	IPI00229080.4	83571	DNSTMGYMMAK	624.7589	2	53	y6	27.2	80.2
1022	IPI00229080.4	83571	EGLELPEDEEEK	708.8287	2	17	P y7	95.7	112.7

1023	IPI00229080.4	83571	ELISNASDALDK	638.3239	2	51	y8	32.0	83.0
1024	IPI00229080.4	83571	EQVANSAFVER	625.3132	2	57	y6	14.6	71.6
1025	IPI00229080.4	83571	GVVDESEDLPLNISR	757.3965	2	25	P y6	35.8	60.8
1026	IPI00229080.4	83571	GVVDESEDLPLNISR	757.8977	2	55	P y6	49.6	104.6
1027	IPI00229080.4	83571	HLEINPDHPIVETLR	594.9878	3	28	P y7	61.4	89.4
1028	IPI00229080.4	83571	HLEINPDHPIVETLR	892.4777	2	42	P y7	82.7	124.7
1029	IPI00229080.4	83571	HSQFIGYPITLYLEK	603.6653	3	17	c b7 P	13.7	30.7
1030	IPI00229080.4	83571	HSQFIGYPITLYLEK	603.9887	3	22	P y8	58.1	80.1
1031	IPI00229080.4	83571	HSQFIGYPITLYLEK	905.4850	2	42	P y8	32.0	74.0
1032	IPI00229080.4	83571	HSQFIGYPITLYLEK	904.9797	2	44	c b7 P	6.2	50.2
1033	IPI00229080.4	83571	HSQFIGYPITLYLEK	905.4852	2	48	P y8	58.1	106.1
1034	IPI00229080.4	83571	IDIIPNPQER	597.8320	2	43	P y6	25.4	68.4
1035	IPI00229080.4	83571	IRYESLTDPSK	654.8429	2	21	c b8 P	32.0	53.0
1036	IPI00229080.4	83571	IRYESLTDPSK	436.8979	3	29	y5	14.6	43.6
1037	IPI00229080.4	83571	IRYESLTDPSKLDSGK	603.6521	3	18	c b8 P	32.0	50.0
1038	IPI00229080.4	83571	LGIHEDSTNR	381.1914	3	28	y5	9.6	37.6
1039	IPI00229080.4	83571	LGIHEDSTNR	571.2835	2	38	y6	22.4	60.4
1040	IPI00229080.4	83571	SIYYITGESK	580.7953	2	32	y8	81.7	113.7
1041	IPI00229080.4	83571	SLVSVTK	733.4473	1	27		0.0	27.0
1042	IPI00229080.4	83571	SLVSVTK	367.2262	2	28	y5	57.1	85.1
1043	IPI00229080.4	83571	TKPIWTRNPDDITQEEYGEFYK	683.5813	4	21	y6	38.2	59.2
1044	IPI00229080.4	83571	TKPIWTRNPDDITQEEYGEFYK	911.1081	3	41		0.0	41.0
1045	IPI00229080.4	83571	VILHLK	361.7500	2	32	y4	44.5	76.5
1046	IPI00229080.4	83571	VVVITK	329.7285	2	26	y5	44.5	70.5
1047	IPI00229080.4	83571	VVVITK	658.4499	1	32	b5	44.5	76.5
1048	IPI00338039.1	50274	AILVDLEPGTMDSVR	808.4212	2	62	P y8	42.2	104.2
1049	IPI00128370.3	24925	DINAYNGETPTEKLPFPIIDDK	831.0853	3	24	P y8	58.1	82.1
1050	IPI00128370.3	24925	FHDFLGDSWGILFSHPR	677.6676	3	25	y5	15.6	40.6
1051	IPI00128370.3	24925	FHDFLGDSWGILFSHPR	508.5023	4	31	b5	15.6	46.6
1052	IPI00128370.3	24925	GRDLAILLGMLDPVEK	580.6625	3	21	P y4	69.9	90.9
1053	IPI00128370.3	24925	GRDLAILLGMLDPVEK	870.4882	2	66		0.0	66.0
1054	IPI00128370.3	24925	GRDLAILLGMLDPVEK	870.4879	2	73	P y4	69.9	142.9
1055	IPI00128370.3	24925	IRFHDFLGDSWGILFSHPR	575.7990	4	46	y5	25.4	71.4
1056	IPI00128370.3	24925	KGESVMVPTLSEEEAK	611.6489	3	16	c b8 P	32.0	48.0
1057	IPI00128370.3	24925	LAPEFAK	775.4424	1	26	P y5	69.8	95.8
1058	IPI00128370.3	24925	LIALSIDSVEDHLAWSK	949.0082	2	33		0.0	33.0
1059	IPI00128370.3	24925	LPFPIIDDK	529.3040	2	36	P y6	82.7	118.7
1060	IPI00128370.3	24925	LSILYPATTGR	596.3415	2	33	y7	33.8	66.8
1061	IPI00128370.3	24925	NFDEILR	453.7379	2	21	y5	97.9	118.9
1062	IPI00128370.3	24925	PGGLLLGDEAPNFEANTTIGR	1072.0474	2	55	c b8	38.2	93.2
1063	IPI00128370.3	24925	PGGLLLGDEAPNFEANTTIGR	1072.0475	2	70	b8	49.6	119.6

1064	IPI00128370.3	24925	PGGLLLGDAPNFEANTTIGR	1072.0472	2	74	c b8	38.2	112.2
1065	IPI00128370.3	24925	PGGLLLGDAPNFEANTTIGR	1072.0470	2	74	y7	5.9	79.9
1066	IPI00128370.3	24925	VVDSLQLTGTKPVATPVDWK	1078.0965	2	78	P y5	32.3	110.3
1067	IPI00128370.3	24925	VVDSLQLTGTKPVATPVDWKK	761.7650	3	23	P y6	41.0	64.0
1068	IPI00128370.3	24925	VVDSLQLTGTKPVATPVDWKK	571.3247	4	23	P y6	29.5	52.5
1069	IPI00128370.3	24925	VVFIFGPKD	1021.5743	1	38	y4	57.1	95.1
1070	IPI00128370.3	24925	VVFIFGPKD	511.2899	2	49	y4	49.1	98.1
1071	IPI00128370.3	24925	VVFIFGPKD	383.8936	3	34	y6	20.6	54.6
1072	IPI00351280.2	42459	AGGFLMK	362.1969	2	39	y6	75.6	114.6
1073	IPI00351280.2	42459	AGGFLMK	426.2447	2	34	y4	44.5	78.5
1074	IPI00351280.2	42459	AHSSMVGVNLPQK	456.5748	3	32	y5	14.6	46.6
1075	IPI00351280.2	42459	AHSSMVGVNLPQK	684.3602	2	38		0.0	38.0
1076	IPI00351280.2	42459	ALESPERPFLAILGGAK	590.3363	3	25		0.0	25.0
1077	IPI00351280.2	42459	ALESPERPFLAILGGAK	590.3362	3	36	y7	32.0	68.0
1078	IPI00351280.2	42459	DVLFLK	367.7260	2	18		0.0	18.0
1079	IPI00351280.2	42459	FHVEEEGK	325.4906	3	21	c b4	32.3	53.3
1080	IPI00351280.2	42459	FHVEEEGK	487.7325	2	25	y6	53.0	78.0
1081	IPI00351280.2	42459	IQLINMLDK	601.3362	2	50	y7	95.7	145.7
1082	IPI00351280.2	42459	ITLPVDFVTADK	659.8684	2	47	P y9	135.2	182.2
1083	IPI00351280.2	42459	ITLPVDFVTADKFDENAK	1012.5260	2	53		0.0	53.0
1084	IPI00351280.2	42459	KYAEAVGR	447.2455	2	34	y6	46.8	80.8
1085	IPI00351280.2	42459	LGDVYVNDAFGTAHR	545.9370	3	53	y+++9	53.0	106.0
1086	IPI00351280.2	42459	QIVWNGPVGVEWEAFAR	1053.5377	2	51	y7	32.3	83.3
1087	IPI00351280.2	42459	QIVWNGPVGVEWEAFAR	1053.5379	2	64	y6	22.4	86.4
1088	IPI00351280.2	42459	QIVWNGPVGVEWEAFAR	1053.5382	2	80	y5	8.5	88.5
1089	IPI00351280.2	42459	SLMDEVVK	920.4771	1	26		0.0	26.0
1090	IPI00351280.2	42459	SLMDEVVK	460.7418	2	40	y6	82.7	122.7
1091	IPI00351280.2	42459	SVVLMShLGRPDGVMPDK	679.0252	3	25	b6	1.6	26.6
1092	IPI00351280.2	42459	VDFNVPMK	475.2443	2	25	c b5 P	27.2	52.2
1093	IPI00351280.2	42459	VLNNMEIGTSLYDEEGAK	992.4723	2	48		0.0	48.0
1094	IPI00351280.2	42459	VLNNMEIGTSLYDEEGAK	991.9718	2	62	y7	61.4	123.4
1095	IPI00351280.2	42459	VLPVDALSNNV	1083.6041	1	27	P y9	52.8	79.8
1096	IPI00351280.2	42459	VLPVDALSNNV	542.3065	2	45	y6	53.0	98.0
1097	IPI00351280.2	42459	YSLEPVAAELK	610.3326	2	29	P y7	61.4	90.4
1098	IPI00351280.2	42459	YSLEPVAAELK	610.3326	2	45	P y7	46.8	91.8
1099	IPI00127206.4	39938	AHRFPALTPEQKK	391.9706	4	41		0.0	41.0
1100	IPI00127206.4	39938	AHRFPALTPEQKK	522.2915	3	43	P y5	53.0	96.0
1101	IPI00127206.4	39938	ALQASALAAWGGK	622.3449	2	88	y6	89.0	177.0
1102	IPI00127206.4	39938	ATQEAFMK	463.2260	2	33	y5	62.3	95.3
1103	IPI00127206.4	39938	DGVDFGK	737.3521	1	31	y6	75.6	106.6
1104	IPI00127206.4	39938	DGVDFGK	369.1768	2	49	y5	41.0	90.0

1105	IPI00127206.4	39938	DSQGNLFR	468.7308	2	41		0.0	41.0
1106	IPI00127206.4	39938	ELLFSVDNSISQSIGGVILFHETLYQK	1013.5343	3	20		0.0	20.0
1107	IPI00127206.4	39938	ELLFSVDNSISQSIGGVILFHETLYQK	1013.5396	3	21		0.0	21.0
1108	IPI00127206.4	39938	ELLFSVDNSISQSIGGVILFHETLYQK	1013.5389	3	27		0.0	27.0
1109	IPI00127206.4	39938	ELLFSVDNSISQSIGGVILFHETLYQK	1013.5344	3	28		0.0	28.0
1110	IPI00127206.4	39938	ELSEIAQR	473.2535	2	37		0.0	37.0
1111	IPI00127206.4	39938	ETTIQGLDGLSER	709.8688	2	62	y8	22.4	84.4
1112	IPI00127206.4	39938	GIVVGIK	685.4605	1	22		0.0	22.0
1113	IPI00127206.4	39938	GIVVGIK	343.2338	2	40	y4	57.1	97.1
1114	IPI00127206.4	39938	IKVENTEENRR	694.3678	2	31		0.0	31.0
1115	IPI00127206.4	39938	KYTPEQVAMATVTALHR	639.6764	3	36	y5	15.6	51.6
1116	IPI00127206.4	39938	KYTPEQVAMATVTALHR	639.3415	3	58	y5	15.6	73.6
1117	IPI00127206.4	39938	KYTPEQVAMATVTALHR	639.3416	3	62	y5	27.2	89.2
1118	IPI00127206.4	39938	LDQGGAPLAGTNK	621.3283	2	55	P y7	61.4	116.4
1119	IPI00127206.4	39938	LDQGGAPLAGTNK	621.3284	2	61	P y7	35.8	96.8
1120	IPI00127206.4	39938	LSFSYGR	415.2139	2	23	y5	25.4	48.4
1121	IPI00127206.4	39938	VLAAYYK	763.4737	1	35		0.0	35.0
1122	IPI00127206.4	39938	VLAAYYK	382.2392	2	45	y6	57.1	102.1
1123	IPI00230002.3	44907	AAVPSIK	343.2159	2	25	P y4	44.5	69.5
1124	IPI00230002.3	44907	LGDVYVNDAFGTAHR	545.6031	3	41	y6	1.4	42.4
1125	IPI00230002.3	44907	VSHVSTGGGASLELLEGG	580.9769	3	24		0.0	24.0
1126	IPI00135231.1	47030	DAAEAIIK	423.2404	2	45	y5	57.1	102.1
1127	IPI00135231.1	47030	DIFQEYDK	585.7935	2	29	y7	125.8	154.8
1128	IPI00135231.1	47030	DIFQEYDK	585.7890	2	29	y7	82.7	111.7
1129	IPI00135231.1	47030	GLPNVQR	783.4519	1	18		0.0	18.0
1130	IPI00135231.1	47030	GLPNVQR	392.2270	2	21	P y5	53.0	74.0
1131	IPI00135231.1	47030	GQETSTNPIASIFAWSR	932.9641	2	63	y5	15.6	78.6
1132	IPI00135231.1	47030	GQETSTNPIASIFAWSR	933.4651	2	78	y7	1.6	79.6
1133	IPI00135231.1	47030	GQETSTNPIASIFAWSR	932.9644	2	97	y7	33.8	130.8
1134	IPI00135231.1	47030	GWPLYLSTK	532.7928	2	39	P y7	102.5	141.5
1135	IPI00135231.1	47030	IIWELIK	457.7890	2	36	y5	69.8	105.8
1136	IPI00135231.1	47030	LDNNTLSFFAK	699.8492	2	66	y5	53.0	119.0
1137	IPI00135231.1	47030	LGENLK	337.1974	2	35	y4	62.3	97.3
1138	IPI00135231.1	47030	LVTGWVKPIIIGR	484.6419	3	30	P y6	23.8	53.8
1139	IPI00135231.1	47030	LVTGWVKPIIIGR	726.4588	2	67	P y6	49.6	116.6
1140	IPI00135231.1	47030	NILGGTVFR	488.7825	2	40	y7	23.8	63.8
1141	IPI00135231.1	47030	SIEDFAHSSFQMALSK	899.4305	2	41	y9	38.5	79.5
1142	IPI00135231.1	47030	SIEDFAHSSFQMALSK	899.4304	2	50	y9	10.5	60.5
1143	IPI00135231.1	47030	TVEAEAAHGTVTR	447.8970	3	21		0.0	21.0
1144	IPI00135231.1	47030	TVEAEAAHGTVTR	671.3421	2	66	y5	18.5	84.5
1145	IPI00135231.1	47030	VEITYTPK	475.7633	2	43	y6	53.0	96.0

1146	IPI00135231.1	47030	VTYMVHDFEEGGGVAMGMYNQDK	860.3736	3	15		0.0	15.0
1147	IPI00135231.1	47030	VTYMVHDFEEGGGVAMGMYNQDK	860.3737	3	19	y5	62.3	81.3
1148	IPI00113325.1	149333	ASKPGLLASVAVAQAQK	527.9848	3	20	y7	61.4	81.4
1149	IPI00113325.1	149333	AVDEFNQQR	553.7652	2	56	y4	29.5	85.5
1150	IPI00113325.1	149333	EFQPLDPTQELIFPELMR	1151.0863	2	26		0.0	26.0
1151	IPI00113325.1	149333	EFQPLDPTQELIFPELMR	1151.0917	2	27	P y6	89.0	116.0
1152	IPI00113325.1	149333	EFQPLDPTQELIFPELMR	1151.0858	2	29	P y6	69.8	98.8
1153	IPI00113325.1	149333	FSVGFPK	391.2162	2	27	y4	27.2	54.2
1154	IPI00113325.1	149333	GLSPIWAINSPATAEVIR	948.5233	2	56	c b7	57.1	113.1
1155	IPI00113325.1	149333	GLSPIWAINSPATAEVIR	948.5235	2	67	P y8	69.8	136.8
1156	IPI00113325.1	149333	GYQADMDWEK	621.7607	2	35	y7	61.4	96.4
1157	IPI00113325.1	149333	HPSAPLVIGNTYLGLHMK	650.3533	3	19		0.0	19.0
1158	IPI00113325.1	149333	IASVTDIPEEFHVSLLTPTPNPK	836.1121	3	18	P y6	8.5	26.5
1159	IPI00113325.1	149333	IASVTDIPEEFHVSLLTPTPNPK	836.1124	3	27	P y6	25.4	52.4
1160	IPI00113325.1	149333	IGFMNNGK	440.7206	2	49	y6	69.8	118.8
1161	IPI00113325.1	149333	IVYQDIEPMIVTVQDALQYESFIGPER	1052.5315	3	21	y5	16.9	37.9
1162	IPI00113325.1	149333	IVYQDIEPMIVTVQDALQYESFIGPER	1052.2014	3	42	y6	5.9	47.9
1163	IPI00113325.1	149333	MAEESQNTVLTRFRGER	623.3081	3	23		0.0	23.0
1164	IPI00113325.1	149333	MIQVASR	402.7238	2	39	y4	7.1	46.1
1165	IPI00113325.1	149333	NADPEVNLFFYLRLK	846.4613	2	38	y4	16.9	54.9
1166	IPI00113325.1	149333	NVASLGGHIISR	612.3460	2	61	y7	77.6	138.6
1167	IPI00113325.1	149333	NVLSDVVSR	494.7749	2	34	y7	46.8	80.8
1168	IPI00113325.1	149333	PWSIPVA	769.4250	1	41	c b4 P	29.5	70.5
1169	IPI00113325.1	149333	QQNAFATVNAGMK	690.3452	2	44	y8	30.4	74.4
1170	IPI00113325.1	149333	RDDMLITGGRHPLLK	445.4976	4	25	b5	25.4	50.4
1171	IPI00113325.1	149333	RDDMLITGGRHPLLK	593.6610	3	29	c b6	1.1	30.1
1172	IPI00113325.1	149333	RLEPIIK	434.7846	2	24	c b5	38.2	62.2
1173	IPI00113325.1	149333	RVGGAFGGK	424.7404	2	25	c b8	29.0	54.0
1174	IPI00113325.1	149333	TGRPIR	350.2169	2	17	c b5	29.5	46.5
1175	IPI00113325.1	149333	TLAQQQIR	443.7593	2	25	y5	41.0	66.0
1176	IPI00113325.1	149333	TNLPSNTAFR	560.7909	2	40	P y7	22.4	62.4
1177	IPI00113325.1	149333	TRIHVQER	568.3207	2	27	P y5	27.2	54.2
1178	IPI00113325.1	149333	TTWIAPGTLNDLLELK	892.9935	2	34	c b5 P	8.5	42.5
1179	IPI00113325.1	149333	TTWIAPGTLNDLLELK	893.4924	2	43	y++14	23.6	66.6
1180	IPI00113325.1	149333	TTWIAPGTLNDLLELK	892.9935	2	51		0.0	51.0
1181	IPI00113325.1	149333	VRELNMYR	360.8588	3	22	c b5	41.0	63.0
1182	IPI00113325.1	149333	VRELNMYR	540.7844	2	34	y6	25.4	59.4
1183	IPI00113325.1	149333	WEFVSAFR	521.2609	2	39	y6	14.6	53.6
1184	IPI00113325.1	149333	YSPEGVLYTR	592.8014	2	51	P y8	20.1	71.1
1185	IPI00117348.1	50818	AVFVDLEPTVIDEVR	851.4570	2	46	y5	41.0	87.0
1186	IPI00117348.1	50818	AVFVDLEPTVIDEVR	851.4570	2	69	P y8	55.3	124.3

1187	IPI00117348.1	50818	DVNAAIATIK	508.2926	2	57	y8	55.3	112.3
1188	IPI00117348.1	50818	EIIDLVLDLDR	543.3137	2	67		0.0	67.0
1189	IPI00117348.1	50818	FDLMYAK	444.2204	2	41	y5	89.0	130.0
1190	IPI00117348.1	50818	IHFPLATYAPVISA EK	878.9880	2	32	y8	61.4	93.4
1191	IPI00117348.1	50818	LDHKFDL MYAK	460.9042	3	28		0.0	28.0
1192	IPI00117348.1	50818	LDHKFDL MYAK	690.8563	2	36	y++9	53.0	89.0
1193	IPI00117348.1	50818	LISQIVSSITASLR	744.4433	2	55	y9	19.2	74.2
1194	IPI00117348.1	50818	LISQIVSSITASLR	744.4433	2	65	y8	11.6	76.6
1195	IPI00117348.1	50818	LSVDY GKK	455.2560	2	22		0.0	22.0
1196	IPI00117348.1	50818	NLDIERPTYTNLNR	859.9437	2	29	P y8	32.0	61.0
1197	IPI00117348.1	50818	QLFHPEQLITGKEDAANNYAR	806.0753	3	53	y7	25.4	78.4
1198	IPI00117348.1	50818	TIGGGDDSFNTFFSETGAGK	1004.9546	2	55	y7	30.4	85.4
1199	IPI00117348.1	50818	TIGGGDDSFNTFFSETGAGK	1004.9508	2	73	y7	32.0	105.0
1200	IPI00117348.1	50818	VGINYQPPTVVPGGDLAK	913.4984	2	49	P y7	22.4	71.4
1201	IPI00117348.1	50818	VGINYQPPTVVPGGDLAK	912.9975	2	52	P y7	35.8	87.8
1202	IPI00355888.2	36809	DATNVGDEGGFAPNILENK	654.6476	3	38	P y7	61.4	99.4
1203	IPI00355888.2	36809	DATNVGDEGGFAPNILENK	981.4667	2	57	P y7	22.4	79.4
1204	IPI00355888.2	36809	DATNVGDEGGFAPNILENK	980.9690	2	58	c b5	8.5	66.5
1205	IPI00355888.2	36809	HIADLAGNPEVILPVPFNVINGGSHAGNK	756.8999	4	30	b8 P	1.8	31.8
1206	IPI00355888.2	36809	IGAEVYHNLK	381.8767	3	36		0.0	36.0
1207	IPI00355888.2	36809	IGAEVYHNLK	572.3113	2	45	y6	46.8	91.8
1208	IPI00355888.2	36809	KVNVVEQEK	358.2048	3	26	c b4	57.1	83.1
1209	IPI00355888.2	36809	KVNVVEQEK	536.8040	2	37	y7	95.7	132.7
1210	IPI00355888.2	36809	LAMQEFMILPVGASSFR	632.9987	3	30	P y8	20.1	50.1
1211	IPI00355888.2	36809	LAMQEFMILPVGASSFR	949.4931	2	60	P y8	22.4	82.4
1212	IPI00355888.2	36809	LAMQEFMILPVGASSFR	949.4929	2	62	P y8	32.0	94.0
1213	IPI00355888.2	36809	LAQSNWGWVMVSHR	514.5930	3	31		0.0	31.0
1214	IPI00355888.2	36809	LAQSNWGWVMVSHR	771.3952	2	82	y5	6.6	88.6
1215	IPI00355888.2	36809	LMIEMDGTENK	640.7968	2	44	y8	61.4	105.4
1216	IPI00355888.2	36809	LMIEMDGTENK	640.7988	2	44	y8	73.4	117.4
1217	IPI00355888.2	36809	SFRNPLAK	311.5153	3	18		0.0	18.0
1218	IPI00355888.2	36809	SFVQNYPVVSIEDPFDQDDWGA WQK	991.1218	3	45		0.0	45.0
1219	IPI00355888.2	36809	SFVQNYPVVSIEDPFDQDDWGA WQK	991.1253	3	49		0.0	49.0
1220	IPI00355888.2	36809	SPDDPSRYITPDQLADLYK	732.3609	3	24		0.0	24.0
1221	IPI00355888.2	36809	SPDDPSRYITPDQLADLYK	732.3610	3	28	b4 P	44.5	72.5
1222	IPI00355888.2	36809	VNVVEQEK	472.7559	2	29	y5	15.6	44.6
1223	IPI00355888.2	36809	YITPDQLADLYK	720.3744	2	27		0.0	27.0
1224	IPI00355888.2	36809	YITPDQLADLYK	720.8752	2	39	P y++9	38.2	77.2
1225	IPI00355888.2	36809	YNQILR	403.7297	2	20		0.0	20.0
1226	IPI00381603.1	47437	EIFDSR	766.3739	1	24	y5	14.6	38.6
1227	IPI00381603.1	47437	GNPTVEVDLYTAK	703.8658	2	40	y8	58.1	98.1

1228	IPI00381603.1	47437	GVSQAVEHINK	591.3173	2	55	y7	49.6	104.6
1229	IPI00381603.1	47437	HIADLAGNPEVILPVPAFNVINGGSHAGNK	1008.1987	3	67	b8 P	21.2	88.2
1230	IPI00381603.1	47437	SGKYDLDFK	536.7693	2	37	c b7	49.6	86.6
1231	IPI00221400.3	40601	AAVLWELHK	356.2065	3	32		0.0	32.0
1232	IPI00221400.3	40601	AAVLWELHK	533.8061	2	41	y5	15.6	56.6
1233	IPI00221400.3	40601	AAVLWELHKPFTIEDIEVAPPK	626.5974	4	21	y5	38.2	59.2
1234	IPI00221400.3	40601	GAIFGGFK	398.7216	2	37	y6	75.6	112.6
1235	IPI00221400.3	40601	GAIFGGFK	398.7216	2	39	y6	69.8	108.8
1236	IPI00221400.3	40601	GTLREGTSR	488.7622	2	23		0.0	23.0
1237	IPI00221400.3	40601	IDGASPLDK	458.2427	2	27	y5	57.1	84.1
1238	IPI00221400.3	40601	IIAVDINK	443.2736	2	49	y6	69.8	118.8
1239	IPI00221400.3	40601	INEAFDLLR	1090.5906	1	36		0.0	36.0
1240	IPI00221400.3	40601	INEAFDLLR	545.7983	2	57	y7	61.4	118.4
1241	IPI00221400.3	40601	INEAFDLLR	545.7983	2	58	y5	38.2	96.2
1242	IPI00221400.3	40601	KFPLDPLITHVLPFEK	632.0339	3	23	c b5 P	14.6	37.6
1243	IPI00221400.3	40601	KFPLDPLITHVLPFEK	474.2770	4	25	y++8	16.9	41.9
1244	IPI00221400.3	40601	KFPLDPLITHVLPFEK	632.0368	3	27	c b7	14.6	41.6
1245	IPI00221400.3	40601	KFPLDPLITHVLPFEK	474.2770	4	27	b5 P	27.2	54.2
1246	IPI00221400.3	40601	KFPLDPLITHVLPFEK	632.0368	3	28	P y4	44.5	72.5
1247	IPI00221400.3	40601	LVADFMAK	447.7415	2	38	y6	69.8	107.8
1248	IPI00221400.3	40601	PFTIEDIEVAPPK	728.3892	2	60	y8	33.8	93.8
1249	IPI00221400.3	40601	PFTIEDIEVAPPK	728.3891	2	62	y8	46.8	108.8
1250	IPI00221400.3	40601	PFTIEDIEVAPPK	728.3892	2	64	y9	29.0	93.0
1251	IPI00221400.3	40601	PFTIEDIEVAPPK	728.3891	2	80		0.0	80.0
1252	IPI00221400.3	40601	QIHNFI STS TFSQYTVVDDIAVAK	895.7906	3	16		0.0	16.0
1253	IPI00221400.3	40601	QIHNFI STS TFSQYTVVDDIAVAK	895.7906	3	20		0.0	20.0
1254	IPI00221400.3	40601	QIHNFI STS TFSQYTVVDDIAVAK	895.7909	3	21		0.0	21.0
1255	IPI00221400.3	40601	QIHNFI STS TFSQYTVVDDIAVAK	895.7906	3	27	y7	46.8	73.8
1256	IPI00221400.3	40601	QIHNFI STS TFSQYTVVDDIAVAK	895.7906	3	29	y8	58.1	87.1
1257	IPI00221400.3	40601	QIHNFI STS TFSQYTVVDDIAVAK	895.7905	3	30	y8	61.4	91.4
1258	IPI00221400.3	40601	QIHNFI STS TFSQYTVVDDIAVAK	895.7906	3	36	y7	25.4	61.4
1259	IPI00221400.3	40601	QIHNFI STS TFSQYTVVDDIAVAK	895.7905	3	39	y7	97.9	136.9
1260	IPI00221400.3	40601	SDLLMPR	416.2233	2	52	y4	27.2	79.2
1261	IPI00125439.3	36525	GAAQNIIPASTGAAK	685.3775	2	20	P y8	44.3	64.3
1262	IPI00125439.3	36525	LISWYDNEYGYSNR	890.9060	2	45	y6	6.2	51.2
1263	IPI00125439.3	36525	LISWYDNEYGYSNR	890.9058	2	59	y5	25.4	84.4
1264	IPI00125439.3	36525	LISWYDNEYGYSNR	890.4021	2	61	y5	13.7	74.7
1265	IPI00125439.3	36525	LISWYDNEYGYSNR	890.4024	2	64	y5	14.6	78.6
1266	IPI00125439.3	36525	LTGMAFR	795.4243	1	20		0.0	20.0
1267	IPI00125439.3	36525	PAKYDDIK	475.2536	2	29	c b6	57.1	86.1
1268	IPI00125439.3	36525	PAKYDDIKK	539.3002	2	52	c b6	44.5	96.5

1269	IPI00125439.3	36525	QASEGPLK	829.4434	1	18		0.0	18.0
1270	IPI00125439.3	36525	RVIISAPSADAPMFVMGVNHEK	593.0589	4	18	b5	1.4	19.4
1271	IPI00125439.3	36525	RVIISAPSADAPMFVMGVNHEK	593.0590	4	18		0.0	18.0
1272	IPI00125439.3	36525	RVIISAPSADAPMFVMGVNHEK	593.3088	4	23	b6 P	38.2	61.2
1273	IPI00125439.3	36525	RVIISAPSADAPMFVMGVNHEK	790.7418	3	43	y6	27.2	70.2
1274	IPI00125439.3	36525	TVDGPSGK	380.6955	2	19		0.0	19.0
1275	IPI00125439.3	36525	VGVNGFGR	805.4383	1	16		0.0	16.0
1276	IPI00125439.3	36525	VGVNGFGR	403.7117	2	41	y4	7.1	48.1
1277	IPI00125439.3	36525	VGVNGFGR	403.2197	2	49	y5	25.4	74.4
1278	IPI00125439.3	36525	VIHDNFGIVEGLMTTVHAIATQK	649.8463	4	29	y5	18.5	47.5
1279	IPI00125439.3	36525	VIHDNFGIVEGLMTTVHAIATQK	649.8460	4	34		0.0	34.0
1280	IPI00125439.3	36525	VIHDNFGIVEGLMTTVHAIATQK	649.8463	4	41		0.0	41.0
1281	IPI00125439.3	36525	VIHDNFGIVEGLMTTVHAIATQK	866.1250	3	42		0.0	42.0
1282	IPI00125439.3	36525	VIHDNFGIVEGLMTTVHAIATQK	649.8479	4	43	b8	46.8	89.8
1283	IPI00125439.3	36525	VIHDNFGIVEGLMTTVHAIATQK	649.8480	4	46	b8	49.6	95.6
1284	IPI00125439.3	36525	VIHDNFGIVEGLMTTVHAIATQK	649.8463	4	59	b8	58.1	117.1
1285	IPI00125439.3	36525	VVDLMAYMASK	614.3101	2	73	y6	75.6	148.6
1286	IPI00125439.3	36525	VVDLMAYMASKE	678.8319	2	27		0.0	27.0
1287	IPI00125439.3	36525	VVDLMAYMASKE	678.8302	2	41	c b7	6.6	47.6
1288	IPI00125439.3	36525	YDDIKK	781.4090	1	29	c b4	49.1	78.1
1289	IPI00129011.1	59529	AGEYEALPEK	553.7713	2	49	y4	62.3	111.3
1290	IPI00129011.1	59529	DMTDDVFK	485.7131	2	28	y6	69.8	97.8
1291	IPI00129011.1	59529	EAQELNLPVVGSQLVGLVPLK	1102.6415	2	47	c b7 P	5.9	52.9
1292	IPI00129011.1	59529	EAQELNLPVVGSQLVGLVPLK	1102.6404	2	48		0.0	48.0
1293	IPI00129011.1	59529	ERIEYLVPSGPEQSLLDTSLR	877.4612	3	35	y++16	78.0	113.0
1294	IPI00129011.1	59529	ERIEYLVPSGPEQSLLDTSLR	877.7929	3	44	y++16	30.7	74.7
1295	IPI00129011.1	59529	ERIEYLVPSGPEQSLLDTSLR	877.7933	3	45	y5	13.7	58.7
1296	IPI00129011.1	59529	ERIEYLVPSGPEQSLLDTSLR	877.7936	3	48	c b7	21.2	69.2
1297	IPI00129011.1	59529	IALNLR	350.2291	2	29	y4	41.0	70.0
1298	IPI00129011.1	59529	ISSLLQEAK	494.7881	2	40	y5	57.1	97.1
1299	IPI00129011.1	59529	LGLDSLAPFDPK	636.8478	2	63	y6	38.2	101.2
1300	IPI00129011.1	59529	LIPPFHAASAQLTSLVDADAR	732.0615	3	18	y6	23.8	41.8
1301	IPI00129011.1	59529	NLAQVSTNLLDFEVTALHTVFEEARR	992.1826	3	48		0.0	48.0
1302	IPI00129011.1	59529	QAVAVPLK	413.2635	2	22	y4	69.9	91.9
1303	IPI00129011.1	59529	SAAPGGGSVAAAVALGAALASVMGQMTYGR	922.1345	3	43		0.0	43.0
1304	IPI00129011.1	59529	SAAPGGGSVAAAVALGAALASVMGQMTYGR	922.1342	3	57	y6	1.3	58.3
1305	IPI00129011.1	59529	SAAPGGGSVAAAVALGAALASVMGQMTYGR	974.1724	3	31		0.0	31.0
1306	IPI00129011.1	59529	SAAPGGGSVAAAVALGAALASVMGQMTYGR	974.1726	3	32		0.0	32.0
1307	IPI00129011.1	59529	TASQLIDMSK	547.2821	2	53	y8	73.4	126.4
1308	IPI00344499.2	98705	ANYLASPPLVIAYAIAGTVR	1031.0829	2	30	c b6 P	0.7	30.7
1309	IPI00344499.2	98705	ANYLASPPLVIAYAIAGTVR	1031.0830	2	39	c b6 P	6.6	45.6

1310	IPI00344499.2	98705	AVLAESYER	519.2667	2	42	y7	33.8	75.8
1311	IPI00344499.2	98705	EPLGVNAQGR	520.7784	2	28	y5	38.2	66.2
1312	IPI00344499.2	98705	FVEFFGPGVAQLSIADR	927.4822	2	56	y5	15.6	71.6
1313	IPI00344499.2	98705	FVEFFGPGVAQLSIADR	927.4855	2	65	c b9	30.4	95.4
1314	IPI00344499.2	98705	GFQVAPDRHNRK	513.9311	3	16		0.0	16.0
1315	IPI00344499.2	98705	GPFLGK	422.7687	2	46		0.0	46.0
1316	IPI00344499.2	98705	GTFANIR	389.7143	2	33	y5	53.0	86.0
1317	IPI00344499.2	98705	KLGGNPEK	421.7405	2	35	y7	46.8	81.8
1318	IPI00344499.2	98705	LYAWNPK	446.2403	2	22	y5	53.0	75.0
1319	IPI00344499.2	98705	NQDLEFER	525.7468	2	35	y6	53.0	88.0
1320	IPI00344499.2	98705	QAPQTVHLPSGETLDVFDAAERYQQAGLPLIVLAGK	959.7629	4	17	P y8	90.2	107.2
1321	IPI00344499.2	98705	RFFNLNK	469.7647	2	20		0.0	20.0
1322	IPI00344499.2	98705	RGNDAIMAR	502.2588	2	28	y5	41.0	69.0
1323	IPI00344499.2	98705	SNLVGMGVIPLEYPGETADSLGLTGR	920.8162	3	26	y5	6.2	32.2
1324	IPI00344499.2	98705	SNLVGMGVIPLEYPGETADSLGLTGR	920.8163	3	32	y8	7.1	39.1
1325	IPI00344499.2	98705	SNLVGMGVIPLEYPGETADSLGLTGR	920.8164	3	35	y5	6.2	41.2
1326	IPI00344499.2	98705	SPPFFESLTLDLQPPK	908.9805	2	34		0.0	34.0
1327	IPI00344499.2	98705	SWNALAAPSEK	587.2987	2	41	P y4	49.1	90.1
1328	IPI00344499.2	98705	TFQAVMR	426.7235	2	34	y4	16.9	50.9
1329	IPI00344499.2	98705	VAVSEMKK	446.2526	2	30	y6	53.0	83.0
1330	IPI00344499.2	98705	VILQDFTGVPVAVVDFAMR	1025.5481	2	68	c b9 P	2.2	70.2
1331	IPI00344499.2	98705	VLLEAAVR	435.7742	2	56	y6	46.8	102.8
1332	IPI00344499.2	98705	YQQAGLPLIVLAGK	736.4386	2	27		0.0	27.0
1333	IPI00110827.1	42366	EITALAPSTMK	1161.6229	1	57	P y5	44.5	101.5
1334	IPI00110827.1	42366	IIAPPERK	308.5272	3	24	c b6	1.3	25.3
1335	IPI00110827.1	42366	SYELPDGQVITIGNER	895.9503	2	76	y4	32.3	108.3
1336	IPI00110827.1	42366	YPIEHGIITNWDDMEK	654.3151	3	18	y6	33.8	51.8
1337	IPI00110827.1	42366	YPIEHGIITNWDDMEK	980.9587	2	28		0.0	28.0
1338	IPI00110827.1	42366	YPIEHGIITNWDDMEK	980.9586	2	38	c b8	44.3	82.3
1339	IPI00380348.1	63700	ADNFEYSDPVDGSISK	872.3913	2	62	P y8	90.2	152.2
1340	IPI00380348.1	63700	AIGGIILTASHNPGGPNDFGIK	736.3950	3	44	P y8	46.8	90.8
1341	IPI00380348.1	63700	DLEALMLDR	538.2764	2	38	y7	12.9	50.9
1342	IPI00380348.1	63700	FNISNGGPAPEAITDK	816.3983	2	82	P y7	108.8	190.8
1343	IPI00380348.1	63700	HGFFVNPSDSVAVIAANIFSIPYFQQTGVR	1095.2306	3	19	y6	1.4	20.4
1344	IPI00380348.1	63700	HGFFVNPSDSVAVIAANIFSIPYFQQTGVR	1095.2306	3	31		0.0	31.0
1345	IPI00380348.1	63700	HGFFVNPSDSVAVIAANIFSIPYFQQTGVR	1094.8963	3	37	y6	23.4	60.4
1346	IPI00380348.1	63700	IFQISK	368.2238	2	28	y5	57.1	85.1
1347	IPI00380348.1	63700	INQDPQVMLAPLISIALK	655.7140	3	40	P y8	44.3	84.3
1348	IPI00380348.1	63700	INQDPQVMLAPLISIALK	983.0677	2	45	P y8	69.8	114.8
1349	IPI00380348.1	63700	INQDPQVMLAPLISIALK	655.7140	3	46	y++9	27.2	73.2
1350	IPI00380348.1	63700	INQDPQVMLAPLISIALK	983.0674	2	62	c b8	5.4	67.4

1351	IPI00380348.1	63700	LSGTGSAGATIR	545.7966	2	49	y5	15.6	64.6
1352	IPI00380348.1	63700	NIFDFNALK	541.2878	2	38	y7	46.8	84.8
1353	IPI00380348.1	63700	QQFDLENK	511.2508	2	26	y6	33.8	59.8
1354	IPI00380348.1	63700	QSVEDILK	466.2589	2	23		0.0	23.0
1355	IPI00380348.1	63700	SGEHDFGAAFDGDGDRNMILGK	770.6819	3	33		0.0	33.0
1356	IPI00380348.1	63700	SMPTSGALDR	517.7504	2	39	P y8	69.8	108.8
1357	IPI00380348.1	63700	TQAYPDQKPGTSGLR	540.2780	3	27	c b4 P	6.6	33.6
1358	IPI00380348.1	63700	TQAYPDQKPGTSGLRK	582.9759	3	23	b4 P	27.2	50.2
1359	IPI00380348.1	63700	VDLGVLGK	400.7477	2	39	y5	29.5	68.5
1360	IPI00380348.1	63700	VFQSNANYAENFIQSIVSTVEPALRQEATLVVGGDGR	996.2638	4	20	y5	16.9	36.9
1361	IPI00380348.1	63700	VSQLQER	430.2356	2	29	y4	27.2	56.2
1362	IPI00380348.1	63700	YDYEEVEAEGANK	758.8341	2	58	y7	46.8	104.8
1363	IPI00127417.1	17466	ASEEHLK	407.2087	2	37	y5	53.0	90.0
1364	IPI00127417.1	17466	DRPFFPGLVK	588.3327	2	22	c b8	22.4	44.4
1365	IPI00127417.1	17466	DRPFFPGLVK	392.5571	3	30	c b5 P	38.2	68.2
1366	IPI00127417.1	17466	GLVGEIHK	414.7632	2	25	y5	62.3	87.3
1367	IPI00127417.1	17466	NIIHGSDSVESAEK	495.9108	3	30	y5	62.3	92.3
1368	IPI00127417.1	17466	NIIHGSDSVESAEK	743.3692	2	40	y++12	29.0	69.0
1369	IPI00127417.1	17466	TFIAIKPDGVQR	672.8881	2	23	y4	44.5	67.5
1370	IPI00127417.1	17466	VMLGETNPADSKPGTIR	595.9762	3	36		0.0	36.0
1371	IPI00127417.1	17466	VMLGETNPADSKPGTIR	893.4624	2	70	P y5	53.0	123.0
1372	IPI00127417.1	17466	YMNSGPVVAMVWEGLNVVK	698.3569	3	42	y6	41.0	83.0
1373	IPI00127417.1	17466	YMNSGPVVAMVWEGLNVVK	698.6912	3	44		0.0	44.0
1374	IPI00127417.1	17466	YMNSGPVVAMVWEGLNVVK	698.3569	3	50	y6	27.2	77.2
1375	IPI00127417.1	17466	YMNSGPVVAMVWEGLNVVK	1047.5341	2	61	y8	30.4	91.4
1376	IPI00127417.1	17466	YMNSGPVVAMVWEGLNVVK	1047.5342	2	79	y8	29.0	108.0
1377	IPI00127417.1	17466	YMNSGPVVAMVWEGLNVVK	1047.5343	2	80	y8	29.0	109.0
1378	IPI00127417.1	17466	YMNSGPVVAMVWEGLNVVK	1047.0305	2	88	y8	12.2	100.2
1379	IPI00126208.1	15795	AAVSGLWVGK	444.7508	2	28	y6	97.9	125.9
1380	IPI00126208.1	15795	DFTPAAQAAFQK	647.8333	2	47	P y9	102.9	149.9
1381	IPI00126208.1	15795	KVITAFNDGLNHLDSLK	629.0164	3	38	y7	75.6	113.6
1382	IPI00126208.1	15795	KVITAFNDGLNHLDSLK	629.3469	3	39	y++14	48.5	87.5
1383	IPI00126208.1	15795	LHVDPENFR	376.1931	3	18	c b4 P	49.1	67.1
1384	IPI00126208.1	15795	LHVDPENFR	563.7861	2	29	P y5	16.9	45.9
1385	IPI00126208.1	15795	LLGNMIVIVLGHHLGK	572.0152	3	29		0.0	29.0
1386	IPI00126208.1	15795	LLGNMIVIVLGHHLGK	429.2603	4	31	b6	1.1	32.1
1387	IPI00126208.1	15795	VHLTDAEK	456.7427	2	22	y6	65.2	87.2
1388	IPI00126208.1	15795	VITAFNDGLNHLDSLK	586.6473	3	19		0.0	19.0
1389	IPI00126208.1	15795	VITAFNDGLNHLDSLK	879.4669	2	64	y7	53.0	117.0
1390	IPI00126208.1	15795	VNADEVGGEALGR	643.8209	2	91	y7	22.4	113.4
1391	IPI00126208.1	15795	VVAGVAAAALAHK	369.5611	3	38		0.0	38.0

1392	IPI00126208.1	15795	VVAGVAAALAHK	553.8378	2	71	y7	49.6	120.6
1393	IPI00126208.1	15795	YFDSFGDLSSASAIMGNAK	991.4583	2	69	c b8	12.2	81.2
1394	IPI00126208.1	15795	YFDSFGDLSSASAIMGNAK	991.4579	2	82	y10	27.7	109.7
1395	IPI00135284.1	36092	VEIVAINDPFIDLNYMVFYQYDSTHGK	1108.8645	3	31	b6	16.9	47.9
1396	IPI00330804.1	89964	ALLFVPR	408.2603	2	27	y4	27.2	54.2
1397	IPI00330804.1	89964	DNSTMGYMAAK	594.7558	2	51	y6	35.8	86.8
1398	IPI00330804.1	89964	DQVANSAFVER	618.3049	2	50	y8	12.2	62.2
1399	IPI00330804.1	89964	EDQTEYLEER	656.2916	2	42	y5	25.4	67.4
1400	IPI00330804.1	89964	FYEQFSK	474.7272	2	37	y5	53.0	90.0
1401	IPI00330804.1	89964	HIYFITGETK	604.8200	2	27	y8	85.6	112.6
1402	IPI00330804.1	89964	HLEINPDHSIETLR	596.3203	3	48	y7	5.6	53.6
1403	IPI00330804.1	89964	LGIHEDSQNR	390.1952	3	40	y4	6.6	46.6
1404	IPI00330804.1	89964	LGIHEDSQNRK	432.8932	3	22	c b6	41.0	63.0
1405	IPI00330804.1	89964	TLTIVDTGIGMTK	675.3717	2	41	y9	29.0	70.0
1406	IPI00330804.1	89964	TLTIVDTGIGMTK	675.3717	2	60	y8	58.1	118.1
1407	IPI00330804.1	89964	TLTIVDTGIGMTK	675.3715	2	66	y8	61.4	127.4
1408	IPI00134475.2	40636	AMGAAQVVVTDLSASR	525.9443	3	60	y4	27.2	87.2
1409	IPI00134475.2	40636	AMGAAQVVVTDLSASR	788.4111	2	80	y9	52.8	132.8
1410	IPI00134475.2	40636	AVEAFETAK	483.2503	2	28	y7	65.2	93.2
1411	IPI00134475.2	40636	AVEAFETAKK	547.2983	2	38	y8	58.1	96.1
1412	IPI00134475.2	40636	ETPQEIASK	501.7594	2	25		0.0	25.0
1413	IPI00134475.2	40636	GENLSLVVHGPGDIR	781.9193	2	39	c b9	5.0	44.0
1414	IPI00134475.2	40636	GENLSLVVHGPGDIRLENYPIPELGPNDVLLK	1156.9592	3	41	b9	5.0	46.0
1415	IPI00134475.2	40636	GENLSLVVHGPGDIRLENYPIPELGPNDVLLK	1156.9586	3	45	y8	12.9	57.9
1416	IPI00134475.2	40636	GENLSLVVHGPGDIRLENYPIPELGPNDVLLK	1156.9585	3	48		0.0	48.0
1417	IPI00134475.2	40636	GSVSLGNK	381.2115	2	41	y5	38.2	79.2
1418	IPI00134475.2	40636	HLKPGDR	822.4588	1	21		0.0	21.0
1419	IPI00134475.2	40636	HLKPGDR	411.7328	2	28	y5	49.6	77.6
1420	IPI00134475.2	40636	IGDFVVK	389.2291	2	54	y5	89.0	143.0
1421	IPI00134475.2	40636	KPMVLGHEAAGTVTK	513.6176	3	25		0.0	25.0
1422	IPI00134475.2	40636	KPMVLGHEAAGTVTK	769.9273	2	82	y10	72.2	154.2
1423	IPI00134475.2	40636	LENYPIPELGPNDVLLK	963.0271	2	24	y8	33.8	57.8
1424	IPI00134475.2	40636	LENYPIPELGPNDVLLK	963.0272	2	30	c b4 P	18.5	48.5
1425	IPI00134475.2	40636	LENYPIPELGPNDVLLK	963.0270	2	37	y8	44.3	81.3
1426	IPI00134475.2	40636	PLVTHRFPLEK	668.8908	2	29	c b7 P	14.6	43.6
1427	IPI00134475.2	40636	RGSVSLGNK	459.2615	2	26	c b7	1.8	27.8
1428	IPI00134475.2	40636	TLNVKPLVTHR	426.5943	3	28		0.0	28.0
1429	IPI00134475.2	40636	TLNVKPLVTHRFPLEK	631.7100	3	15		0.0	15.0
1430	IPI00134475.2	40636	TLNVKPLVTHRFPLEK	631.3768	3	17		0.0	17.0
1431	IPI00134475.2	40636	VAIEPGVPR	469.2773	2	51	P y5	69.8	120.8
1432	IPI00134475.2	40636	VGELVK	322.7026	2	52	y5	62.3	114.3

1433	IPI00310035.3	46416	ASLQNLLSASQAR	679.8730	2	63	y6	14.6	77.6
1434	IPI00310035.3	46416	ASSIVVSGTPIR	593.8442	2	51	y5	38.2	89.2
1435	IPI00310035.3	46416	DIQQWEYVPLGPFLGK	945.9953	2	34	P y8	44.3	78.3
1436	IPI00310035.3	46416	DIQQWEYVPLGPFLGK	945.9952	2	44	P y8	32.0	76.0
1437	IPI00310035.3	46416	DIQQWEYVPLGPFLGK	945.9955	2	45	P y8	44.3	89.3
1438	IPI00310035.3	46416	ENALLPNWLHLPVGYHGR	696.3716	3	15		0.0	15.0
1439	IPI00310035.3	46416	ENALLPNWLHLPVGYHGR	522.5312	4	16		0.0	16.0
1440	IPI00310035.3	46416	FGEPIPIISK	494.2787	2	30	P y4	44.5	74.5
1441	IPI00310035.3	46416	HLFTGPALSK	535.8037	2	40	y8	11.6	51.6
1442	IPI00310035.3	46416	HQHVFDETTLNNFMGLGQAAWK	637.0576	4	20	y6	62.3	82.3
1443	IPI00310035.3	46416	HQHVFDETTLNNFMGLGQAAWK	849.0749	3	56		0.0	56.0
1444	IPI00310035.3	46416	HQHVFDETTLNNFMGLGQAAWK	849.0749	3	62	y6	25.4	87.4
1445	IPI00310035.3	46416	SFGTTISPWWPMDALMPFVVPNPK	911.1390	3	28	P y8	90.2	118.2
1446	IPI00310035.3	46416	SFIPVAEDSDFPIQNLPGYGVFSTQSNPK	1047.5192	3	28	P y++12	35.5	63.5
1447	IPI00310035.3	46416	SFIPVAEDSDFPIQNLPGYGVFSTQSNPKPR	1132.2366	3	70		0.0	70.0
1448	IPI00267407.1	54371	DSYDFFTEIK	632.7905	2	18	y7	49.6	67.6
1449	IPI00267407.1	54371	DSYDFFTEIK	632.7905	2	35	y7	35.8	70.8
1450	IPI00267407.1	54371	ELLMLENFIGGK	682.3707	2	64	y7	46.8	110.8
1451	IPI00267407.1	54371	ELNLPFGGMK	553.2886	2	33	P y6	95.7	128.7
1452	IPI00267407.1	54371	IAPAIAAGNTVIAK	655.3984	2	59	y7	35.8	94.8
1453	IPI00267407.1	54371	LADVLEQSLEELAQAESK	658.3399	3	43	y6	23.8	66.8
1454	IPI00267407.1	54371	LADVLEQSLEELAQAESK	987.0069	2	63	y6	65.2	128.2
1455	IPI00267407.1	54371	LADVLEQSLEELAQAESK	987.0067	2	101	y4	15.6	116.6
1456	IPI00267407.1	54371	SLVLNR	351.2187	2	20	y4	16.9	36.9
1457	IPI00267407.1	54371	VGEALVSHPEVPLISFTGSQPTAER	874.7914	3	24	y8	5.2	29.2
1458	IPI00267407.1	54371	VGEALVSHPEVPLISFTGSQPTAER	874.7918	3	27	P y5	38.2	65.2
1459	IPI00267407.1	54371	VGVPSPSANMGALISK	821.9268	2	35	y6	29.5	64.5
1460	IPI00267407.1	54371	VGVPSPSANMGALISK	821.9268	2	60	c b6 P	27.2	87.2
1461	IPI00267407.1	54371	VPNSGKEIEAAVEAAR	590.6399	3	38	y4	15.6	53.6
1462	IPI00267407.1	54371	YGLAATVWSK	548.2951	2	54	y7	46.8	100.8
1463	IPI00230084.3	56066	AWNIAWADIPAPK	691.3745	2	72	P y4	41.0	113.0
1464	IPI00230084.3	56066	DYEETIGK	477.7242	2	21	y6	49.6	70.6
1465	IPI00230084.3	56066	EVALMVQER	537.7851	2	48	y5	25.4	73.4
1466	IPI00230084.3	56066	FQDEEEVFEWNNNEVK	971.9347	2	79	y6	12.9	91.9
1467	IPI00230084.3	56066	GAPTTSLVSVAVTK	665.8874	2	60	y6	49.6	109.6
1468	IPI00230084.3	56066	LVSLEMVK	438.7466	2	27	y6	65.2	92.2
1469	IPI00230084.3	56066	QAVSMFVR	469.2504	2	34		0.0	34.0
1470	IPI00230084.3	56066	QGLSSSIFTK	534.2900	2	33	y5	44.5	77.5
1471	IPI00230084.3	56066	STLLIHHPQYAWLQDLGLREDNEGVYNGSWGGR	957.2240	4	60	y++18	8.4	68.4
1472	IPI00230084.3	56066	STLLIHHPQYAWLQDLGLREDNEGVYNGSWGGR	957.2197	4	72	y8	11.6	83.6
1473	IPI00230084.3	56066	VGNPWDPNLYGPLHTK	641.3391	3	18		0.0	18.0

1474	IPI00230084.3	56066	VGNPWDPNILYGPLHTK	641.0035	3	22	P y++11	58.1	80.1
1475	IPI00230084.3	56066	VGNPWDPNILYGPLHTK	641.3374	3	33	y7	23.8	56.8
1476	IPI00230084.3	56066	VNLLSFTGSTQVGK	725.8972	2	46	y8	5.6	51.6
1477	IPI00230084.3	56066	VRQASLK	401.2507	2	24	b5	27.2	51.2
1478	IPI00319652.1	22553	AHPLFTFLR	367.8784	3	20		0.0	20.0
1479	IPI00319652.1	22553	AHPLFTFLR	551.3145	2	44	P y7	61.4	105.4
1480	IPI00319652.1	22553	FLVGPDPVPRR	656.3812	2	27	y6	25.4	52.4
1481	IPI00319652.1	22553	FRTIDIEPDIETLLSQQSGNS	1182.5902	2	54	c b7 P	22.4	76.4
1482	IPI00319652.1	22553	LSAAAQSTVYAFSARPLTGGEVSLGSLR	969.8515	3	50	y++19	7.7	57.7
1483	IPI00319652.1	22553	LSAAAQSTVYAFSARPLTGGEVSLGSLR	969.8519	3	69	P y8	11.6	80.6
1484	IPI00319652.1	22553	NDIAWNFEK	568.7731	2	48	y6	82.7	130.7
1485	IPI00319652.1	22553	TIDIEPDIETLLSQQSGNS	1031.0064	2	38	c b5 P	44.5	82.5
1486	IPI00319652.1	22553	TIDIEPDIETLLSQQSGNS	687.6735	3	40		0.0	40.0
1487	IPI00319652.1	22553	TIDIEPDIETLLSQQSGNS	687.6735	3	50		0.0	50.0
1488	IPI00319652.1	22553	TIDIEPDIETLLSQQSGNS	1030.5043	2	54	y7	58.1	112.1
1489	IPI00319652.1	22553	YVRPGGGFEPNFTLFEK	653.3363	3	25		0.0	25.0
1490	IPI00319652.1	22553	YVRPGGGFEPNFTLFEK	653.3316	3	28	c b9 P	55.3	83.3
1491	IPI00319652.1	22553	YVRPGGGFEPNFTLFEK	979.9967	2	52	c b9 P	19.2	71.2
1492	IPI00121267.1	75227	APVVLSR	371.2349	2	48	y4	15.6	63.6
1493	IPI00121267.1	75227	EVLSLGYHGNVVDLWER	662.6725	3	21	y5	29.5	50.5
1494	IPI00121267.1	75227	EVLSLGYHGNVVDLWER	663.0075	3	26	y5	27.2	53.2
1495	IPI00121267.1	75227	HLVQESLRR	379.8877	3	23	c b5	7.1	30.1
1496	IPI00121267.1	75227	HLVQESLRR	569.3283	2	24	c b8	21.2	45.2
1497	IPI00121267.1	75227	HQLVVG SQAR	365.5408	3	22		0.0	22.0
1498	IPI00121267.1	75227	HQLVVG SQAR	547.8071	2	38	y8	30.4	68.4
1499	IPI00121267.1	75227	HVAAINR	390.7274	2	16	y5	41.0	57.0
1500	IPI00121267.1	75227	ILYSDQK	433.7348	2	25	y5	53.0	78.0
1501	IPI00121267.1	75227	LLALEFAQELR	651.8740	2	60	y6	53.0	113.0
1502	IPI00121267.1	75227	LQYMDNIR	526.7636	2	26	y6	35.8	61.8
1503	IPI00121267.1	75227	LTMSYLSK	471.7520	2	16	y5	75.6	91.6
1504	IPI00121267.1	75227	LVITNGMVIPNYSSR	832.9472	2	50	P y6	38.2	88.2
1505	IPI00121267.1	75227	MTEEQLVMYSGHPLGLFPSSPR	860.0904	3	54	P y5	6.6	60.6
1506	IPI00121267.1	75227	MTEEQLVMYSGHPLGLFPSSPR	860.0903	3	64	P y5	27.2	91.2
1507	IPI00121267.1	75227	QFGHIYMYR	405.5308	3	17		0.0	17.0
1508	IPI00121267.1	75227	TPNLSPEEEQLALR	799.4160	2	37	c b5 P	18.5	55.5
1509	IPI00121267.1	75227	VFVTSGLGMSG AQAK	755.8916	2	58	y6	38.2	96.2
1510	IPI00121267.1	75227	WAGVP HAPVR	363.8699	3	16	y4	16.9	32.9
1511	IPI00121267.1	75227	YLG IENLAGK	539.3002	2	35	y6	33.8	68.8
1512	IPI00121267.1	75227	YPSYVQHIMGDIFSQQGF PFR	816.3938	3	42	y6	6.2	48.2
1513	IPI00230204.5	46488	APPSVFAQVPQAPPVLVFK	665.0508	3	16	c b9 P	11.6	27.6
1514	IPI00230204.5	46488	APPSVFAQVPQAPPVLVFK	997.0749	2	39		0.0	39.0

1515	IPI00230204.5	46488	APPSVFAQVPQAPPVLVFK	997.0710	2	40	c b9 P	19.2	59.2
1516	IPI00230204.5	46488	ARLEALK	400.7535	2	17	c b4	16.9	33.9
1517	IPI00230204.5	46488	FLFPFFDSAYQGFAFGDLEK	1144.0415	2	60	y6	29.5	89.5
1518	IPI00230204.5	46488	FLFPFFDSAYQGFAFGDLEK	1144.0414	2	89	y7	23.8	112.8
1519	IPI00230204.5	46488	HIYLLPSGR	528.3032	2	36	y7	32.0	68.0
1520	IPI00230204.5	46488	IANDNSLNHEYLPIGLAEFR	800.7501	3	25	y6	6.2	31.2
1521	IPI00230204.5	46488	IANDNSLNHEYLPIGLAEFR	800.7501	3	31	y6	6.2	37.2
1522	IPI00230204.5	46488	IANDNSLNHEYLPIGLAEFR	800.7503	3	37	y4	16.9	53.9
1523	IPI00230204.5	46488	IGADFLGR	424.7354	2	53	y7	46.8	99.8
1524	IPI00230204.5	46488	LTADFRDDPDPRK	515.9266	3	22	y++11	21.2	43.2
1525	IPI00230204.5	46488	NFGLYNER	506.7460	2	23	y4	44.5	67.5
1526	IPI00230204.5	46488	NTPIYVSSPTWENHNAVSAAGFK	880.0956	3	17		0.0	17.0
1527	IPI00230204.5	46488	QVEYLVNEK	561.2959	2	28	y5	53.0	81.0
1528	IPI00230204.5	46488	VGGVQSLGGTGALR	636.3588	2	30	y9	4.8	34.8
1529	IPI00230204.5	46488	VGNLTVVGK	443.7715	2	70	y7	13.7	83.7
1530	IPI00230204.5	46488	VNLGVGAYRTDESQPWWLPVVR	819.4418	3	28	P y8	85.6	113.6
1531	IPI00133549.1	52410	AAVLENGVLSR	635.3607	2	56		0.0	56.0
1532	IPI00133549.1	52410	AAVLENGVLSR	635.3607	2	57		0.0	57.0
1533	IPI00133549.1	52410	DFLGGLAFR	498.2696	2	49	y6	23.8	72.8
1534	IPI00133549.1	52410	FANQILSYGAELDADHPGFKDPVYR	706.8502	4	41	y++15	10.1	51.1
1535	IPI00133549.1	52410	HGQPIPR	402.7277	2	37	y6	25.4	62.4
1536	IPI00133549.1	52410	LNKDEYEFFTYLDK	609.2963	3	30	y5	53.0	83.0
1537	IPI00133549.1	52410	LRPVAGLLSSR	390.2433	3	24	y4	16.9	40.9
1538	IPI00133549.1	52410	LRPVAGLLSSR	584.8619	2	34	P y9	52.8	86.8
1539	IPI00133549.1	52410	NDIGATVHELRSR	656.3388	2	54	y9	52.8	106.8
1540	IPI00133549.1	52410	QFADIAYNYR	630.8071	2	49	y4	44.5	93.5
1541	IPI00133549.1	52410	RSKPVLGSIK	599.3870	2	39	c b9	2.2	41.2
1542	IPI00133549.1	52410	SLRNDIGATVHELRSR	556.6321	3	64	y4	27.2	91.2
1543	IPI00133549.1	52410	TFAATIPRPFVSR	488.2776	3	19	y++12	5.0	24.0
1544	IPI00133549.1	52410	TIQELDRFANQILSYGAELDADHPGFKDPVYR	920.9612	4	20	y++14	16.1	36.1
1545	IPI00133549.1	52410	TIQELDRFANQILSYGAELDADHPGFKDPVYR	920.9613	4	33	P y4	18.5	51.5
1546	IPI00133549.1	52410	TWGTVFR	433.7301	2	23	y5	29.5	52.5
1547	IPI00133549.1	52410	VEVLDNTQQLK	643.8512	2	51	y7	33.8	84.8
1548	IPI00133549.1	52410	VEYTEERK	394.8596	3	20		0.0	20.0
1549	IPI00331241.5	25270	ADIALVELLYHVEELDPGVVDNFPLLK	1008.2103	3	19		0.0	19.0
1550	IPI00331241.5	25270	ADIALVELLYHVEELDPGVVDNFPLLK	1008.2153	3	23		0.0	23.0
1551	IPI00331241.5	25270	ADIALVELLYHVEELDPGVVDNFPLLK	1008.2151	3	26		0.0	26.0
1552	IPI00331241.5	25270	ADIALVELLYHVEELDPGVVDNFPLLK	1008.2141	3	28	y6	29.5	57.5
1553	IPI00331241.5	25270	ADIALVELLYHVEELDPGVVDNFPLLK	1008.2106	3	33	y8	21.2	54.2
1554	IPI00331241.5	25270	ADIALVELLYHVEELDPGVVDNFPLLK	1008.2104	3	35	P y4	49.1	84.1
1555	IPI00331241.5	25270	ADIALVELLYHVEELDPGVVDNFPLLK	1008.2102	3	41	y8	33.8	74.8

1556	IPI00331241.5	25270	AGKPVLYHYFDGR	467.9139	3	28	y5	38.2	66.2
1557	IPI00331241.5	25270	AGKPVLYHYFDGR	467.9139	3	41	y4	15.6	56.6
1558	IPI00331241.5	25270	AGKPVLYHYFDGR	701.3747	2	43	y6	49.6	92.6
1559	IPI00331241.5	25270	AILNYIASK	496.7926	2	20	y7	49.6	69.6
1560	IPI00331241.5	25270	AILNYIASK	992.5791	1	25		0.0	25.0
1561	IPI00331241.5	25270	AILNYIASK	496.7926	2	43	y7	65.2	108.2
1562	IPI00331241.5	25270	FLQPGSQR	466.7510	2	35	P y5	15.6	50.6
1563	IPI00331241.5	25270	KPFDDAK	410.7136	2	29	c b5	41.0	70.0
1564	IPI00331241.5	25270	LRSDGSLMFQQVPMVEIDGMK	794.7252	3	26	b8	1.4	27.4
1565	IPI00331241.5	25270	LRSDGSLMFQQVPMVEIDGMK	794.7276	3	27		0.0	27.0
1566	IPI00331241.5	25270	LRSDGSLMFQQVPMVEIDGMK	1191.5940	2	41	c b8	6.2	47.2
1567	IPI00331241.5	25270	LRSDGSLMFQQVPMVEIDGMK	1191.5881	2	42	y5	23.4	65.4
1568	IPI00331241.5	25270	NRYFPAFEK	391.2014	3	18	P y5	62.3	80.3
1569	IPI00331241.5	25270	SDGSLMFQQVPMVEIDGMK	1056.9937	2	52	c b9	21.2	73.2
1570	IPI00331241.5	25270	SDGSLMFQQVPMVEIDGMK	1056.9938	2	54	y7	15.6	69.6
1571	IPI00331241.5	25270	SHGQDYLVGNR	623.3019	2	48	y6	22.4	70.4
1572	IPI00331241.5	25270	VSNLPTVK	429.2581	2	35	P y4	18.5	53.5
1573	IPI00331241.5	25270	VSNLPTVKK	493.3063	2	41	y7	38.2	79.2
1574	IPI00331241.5	25270	VSNLPTVKK	493.3063	2	46		0.0	46.0
1575	IPI00331241.5	25270	WLLAAAGVEFE EK	731.8914	2	18		0.0	18.0
1576	IPI00331241.5	25270	WLLAAAGVEFE EK	731.8830	2	63	y7	46.8	109.8
1577	IPI00331241.5	25270	YFPAFEK	451.2263	2	19	P y5	57.1	76.1
1578	IPI00331241.5	25270	YFPAFEK	901.4455	1	30	P y5	57.1	87.1
1579	IPI00331241.5	25270	YNLYGK	757.3915	1	18		0.0	18.0
1580	IPI00331241.5	25270	YNLYGK	379.1975	2	30	y5	38.2	68.2
1581	IPI00122342.6	90868	ASGADSKGDDLSTAILK	845.9282	2	71	y7	33.8	104.8
1582	IPI00122342.6	90868	ELQELVQYPVEHPDK	912.4628	2	62	y8	58.1	120.1
1583	IPI00122342.6	90868	GILLYGPPGTGK	586.8374	2	36	y7	33.8	69.8
1584	IPI00122342.6	90868	IVSQLLTLMDGLK	716.4195	2	69	y7	33.8	102.8
1585	IPI00122342.6	90868	KGDIFLVR	474.2879	2	33	y5	44.5	77.5
1586	IPI00122342.6	90868	KYEMFAQTLQQSR	543.9403	3	29	y4	15.6	44.6
1587	IPI00122342.6	90868	LAGESESNLRK	602.3199	2	50	y7	23.8	73.8
1588	IPI00122342.6	90868	LDQLIYIPLPEK	778.9314	2	44	P y6	53.0	97.0
1589	IPI00122342.6	90868	LIVDEAINEDNSVLSQPK	1086.0644	2	82	y4	27.2	109.2
1590	IPI00122342.6	90868	MDELQLFRGDTVLLK	593.6566	3	22		0.0	22.0
1591	IPI00122342.6	90868	MDELQLFRGDTVLLK	889.9806	2	33	y5	53.0	86.0
1592	IPI00122342.6	90868	NVFIIGATNRPDIIDPAILRPGR	840.4801	3	21	P y8	1.8	22.8
1593	IPI00122342.6	90868	PYFLEAYRPIR	475.5946	3	19		0.0	19.0
1594	IPI00122342.6	90868	VINQILTEMDGMSTK	840.9244	2	55	y9	30.4	85.4
1595	IPI00122342.6	90868	WALSQSNPSALR	665.3559	2	57	y9	20.1	77.1
1596	IPI00139788.2	78841	ASDTSITWNNLK	675.3467	2	52	y6	77.6	129.6

1597	IPI00139788.2	78841	DGGGDVAFVK	482.7401	2	74		0.0	74.0
1598	IPI00139788.2	78841	DLLFRDDTK	561.7928	2	42	c b7	35.8	77.8
1599	IPI00139788.2	78841	HQTVLDNTEGK	621.3099	2	57	y9	40.2	97.2
1600	IPI00139788.2	78841	HQTVLDNTEGKNPAEWAK	680.0070	3	29	y7	35.8	64.8
1601	IPI00139788.2	78841	HTTIFEVLPEK	657.3641	2	22		0.0	22.0
1602	IPI00139788.2	78841	IPSHAVVAR	475.2826	2	40	y7	61.4	101.4
1603	IPI00139788.2	78841	KGTFQLNQLEGKK	535.9587	3	24		0.0	24.0
1604	IPI00139788.2	78841	LPEGTTPEK	486.2555	2	32		0.0	32.0
1605	IPI00139788.2	78841	NNGKEDIWEILK	786.4270	2	44	y5	38.2	82.2
1606	IPI00139788.2	78841	TAGWNIPMGMLYNR	812.3918	2	50	P y8	42.2	92.2
1607	IPI00139788.2	78841	VAQEHFGK	458.2376	2	35		0.0	35.0
1608	IPI00139788.2	78841	YLGAEYMQSVGNMR	809.8722	2	88	y4	29.5	117.5
1609	IPI00117350.1	50634	AVFVDLEPTVIDEIR	858.4636	2	65	P y8	69.8	134.8
1610	IPI00117350.1	50634	AVFVDLEPTVIDEIRNGPYR	768.7404	3	16	b6	27.2	43.2
1611	IPI00117350.1	50634	AVFVDLEPTVIDEIRNGPYR	768.7405	3	18		0.0	18.0
1612	IPI00117350.1	50634	DVNAAIAAIK	493.2874	2	63	y6	69.8	132.8
1613	IPI00117350.1	50634	EIIDPVLDLDR	535.2983	2	23		0.0	23.0
1614	IPI00122565.1	51018	KFDLGGQDVIDFTGHSLALYR	766.0675	3	55	y6	14.6	69.6
1615	IPI00122565.1	51018	KFDLGGQDVIDFTGHSLALYR	766.0648	3	57	y++17	36.9	93.9
1616	IPI00122565.1	51018	LPGQPPASMR	555.7902	2	37	P y7	57.1	94.1
1617	IPI00122565.1	51018	LSAIYGGTYMLNKPIEEIVQNGK	884.8081	3	41		0.0	41.0
1618	IPI00122565.1	51018	LSAIYGGTYMLNKPIEEIVQNGK	884.8120	3	48	y6	15.6	63.6
1619	IPI00122565.1	51018	LYSESLAR	469.7514	2	27	y6	35.8	62.8
1620	IPI00122565.1	51018	SPYLYPLYGLGELPQGFAR	1071.5600	2	69	P y6	13.7	82.7
1621	IPI00122565.1	51018	VLHMDQNPYYGGESASITPLEDLK	947.7877	3	26	P y7	61.4	87.4
1622	IPI00122565.1	51018	VPSTEAEALASSLMGLFEK	660.6715	3	45		0.0	45.0
1623	IPI00122565.1	51018	VPSTEAEALASSLMGLFEK	990.5018	2	105	y8	32.0	137.0
1624	IPI00272431.2	29159	LTGMAFR	398.2128	2	27	y5	69.8	96.8
1625	IPI00272431.2	29159	VIHDNFGIVEGLMAMVHAITATQK	866.1255	3	41	y7	23.8	64.8
1626	IPI00118625.1	72897	DIITTELNSATDNPVMFASR	1098.5391	2	50	P y7	33.8	83.8
1627	IPI00118625.1	72897	DIITTELNSATDNPVMFASR	1098.5386	2	60	P y7	33.8	93.8
1628	IPI00118625.1	72897	DRFMADIEAAHR	510.2488	3	47	c b7	46.8	93.8
1629	IPI00118625.1	72897	GQIEVAFR	460.2537	2	38	y6	35.8	73.8
1630	IPI00118625.1	72897	LLLDQK	365.2289	2	32	y4	44.5	76.5
1631	IPI00118625.1	72897	LQELQVNLVR	606.3596	2	49	y8	21.2	70.2
1632	IPI00118625.1	72897	LTVGWLGR	451.2668	2	37	y6	44.5	81.5
1633	IPI00118625.1	72897	SHSSGVGKPLSPER	479.9200	3	29	P y6	5.9	34.9
1634	IPI00118625.1	72897	SHSSGVGKPLSPER	719.3760	2	63	P y6	25.4	88.4
1635	IPI00118625.1	72897	SLLDSHHPSEIAESHR	483.2317	4	16		0.0	16.0
1636	IPI00118625.1	72897	SLLDSHHPSEIAESHR	643.9721	3	36	y++14	9.3	45.3
1637	IPI00118625.1	72897	YIALDGDSLSTEDLVNLGK	1012.5148	2	61	c b9	11.6	72.6

1638	IPI00118625.1	72897	YIALDGDSLSTEDLVNLGK	1012.5148	2	79	y9	42.2	121.2
1639	gij1346343	66149	DVDGAYMTK	500.2267	2	20	y7	65.2	85.2
1640	gij1346343	66149	FLEQQNQVLQTK	738.4012	2	40		0.0	40.0
1641	gij1346343	66149	IEISELNR	487.2689	2	40	y6	25.4	65.4
1642	gij1346343	66149	LLRDYQELMNTK	508.6010	3	16	y4	41.0	57.0
1643	gij1346343	66149	LNDLEDALQQAK	679.3571	2	76	y7	49.6	125.6
1644	gij1346343	66149	LRSEIDNVK	537.3020	2	34	c b6	53.0	87.0
1645	gij1346343	66149	NMQDMVEDYRNKYEDEINK	812.3599	3	21	y4	18.5	39.5
1646	gij1346343	66149	QISNLQQSISDAEQRGENALK	777.3978	3	15		0.0	15.0
1647	gij1346343	66149	QISNLQQSISDAEQRGENALK	777.3975	3	34		0.0	34.0
1648	gij1346343	66149	SKAEAESLYQSK	670.8397	2	52	y6	38.2	90.2
1649	gij1346343	66149	SLDLDSIIAEVK	651.8608	2	87	y8	58.1	145.1
1650	gij1346343	66149	SLNNQFASFIDK	692.3491	2	58	y5	53.0	111.0
1651	gij1346343	66149	THNLEPYFESFINNLR	665.3297	3	39	y4	41.0	80.0
1652	gij1346343	66149	TLLEGEESR	517.2619	2	38	y5	38.2	76.2
1653	gij1346343	66149	TNAENEFVTIKK	697.3714	2	36	y8	44.3	80.3
1654	gij1346343	66149	WELLQQVDTSTR	738.3787	2	49	y8	23.8	72.8
1655	gij1346343	66149	YEELQITAGR	590.3041	2	70	y8	44.3	114.3
1656	IPI00131828.1	46145	DQSPASHEIATNLGDFAISLYR	802.7315	3	35		0.0	35.0
1657	IPI00131828.1	46145	DQSPASHEIATNLGDFAISLYR	802.7314	3	38	y4	15.6	53.6
1658	IPI00131828.1	46145	FLEEAK	736.3887	1	23	c b4	62.3	85.3
1659	IPI00131828.1	46145	FLEEAK	368.6976	2	28	y5	53.0	81.0
1660	IPI00131828.1	46145	IFNNGADLSGITEENAPLK	1002.5085	2	84	y8	58.1	142.1
1661	IPI00131828.1	46145	KLDQDTV FALANYILFK	667.3687	3	21		0.0	21.0
1662	IPI00131828.1	46145	KLDQDTV FALANYILFK	667.0343	3	23	y7	12.9	35.9
1663	IPI00131828.1	46145	KLDQDTV FALANYILFK	1000.5517	2	63	y8	32.0	95.0
1664	IPI00131828.1	46145	KLDQDTV FALANYILFK	1000.5480	2	82	c b7	16.9	98.9
1665	IPI00131828.1	46145	KVINDFVEK	546.3091	2	42	y7	22.4	64.4
1666	IPI00131828.1	46145	LSQAVHK	391.7297	2	20	y5	44.5	64.5
1667	IPI00131828.1	46145	MQHLEQTLISK	607.8136	2	50	y7	65.2	115.2
1668	IPI00131828.1	46145	RLAQIHFPFR	379.8929	3	42	c b5	9.6	51.6
1669	IPI00131828.1	46145	SFQHLLQTLNRPDSELQLSTGNGLFVNNDLK	875.7061	4	15	y5	53.0	68.0
1670	IPI00131828.1	46145	SFQHLLQTLNRPDSELQLSTGNGLFVNNDLK	875.9571	4	17	y7	35.8	52.8
1671	IPI00131828.1	46145	TLMSPLGITR	544.8109	2	44	y7	49.6	93.6
1672	IPI00131828.1	46145	VINDFVEK	482.2605	2	25	y6	89.0	114.0
1673	IPI00131828.1	46145	VVDPTHK	398.2222	2	23	y5	25.4	48.4
1674	IPI00126940.1	40466	AGHYAASVIIR	386.5522	3	42	c b5	1.1	43.1
1675	IPI00126940.1	40466	AGHYAASVIIR	579.3255	2	67	y7	5.9	72.9
1676	IPI00126940.1	40466	ELFDELVK	496.7687	2	24	y5	53.0	77.0
1677	IPI00126940.1	40466	FGEILK	706.4177	1	31	c b4	41.0	72.0
1678	IPI00126940.1	40466	FGEILK	353.7105	2	48	y4	44.5	92.5

1679	IPI00126940.1	40466	KAQALPK	378.2424	2	33	c b5	25.4	58.4
1680	IPI00126940.1	40466	LKVEAPQALSENVLFMGNPLLDISAVVDK	1056.9103	3	54	y6	41.0	95.0
1681	IPI00126940.1	40466	VAQWLIQEPHK	450.2513	3	25		0.0	25.0
1682	IPI00126940.1	40466	VAQWLIQEPHK	674.8774	2	52	y6	49.6	101.6
1683	IPI00126940.1	40466	VEAPQALSENVLFMGNPLLDISAVVDK	976.5131	3	37		0.0	37.0
1684	IPI00126940.1	40466	VEAPQALSENVLFMGNPLLDISAVVDK	976.5134	3	42	b7	5.6	47.6
1685	IPI00126940.1	40466	VEYHAGGSTQNSMK	503.5655	3	27	y5	25.4	52.4
1686	IPI00126940.1	40466	VEYHAGGSTQNSMK	754.8436	2	42	y9	29.0	71.0
1687	IPI00126940.1	40466	VFTLNLSAPPFISQFFK	620.3410	3	35	y5	62.3	97.3
1688	IPI00126940.1	40466	VFTLNLSAPPFISQFFK	930.5124	2	39	y5	57.1	96.1
1689	IPI00126940.1	40466	VFTLNLSAPPFISQFFK	930.5127	2	67		0.0	67.0
1690	IPI00126940.1	40466	YSLKPNDQILAEDK	545.2862	3	47	y5	83.9	130.9
1691	IPI00134746.2	52016	APNSPDVLEIEFFK	529.6198	3	32	P y++10	61.4	93.4
1692	IPI00134746.2	52016	EFVEEFIWPAVQSSALYEDR	806.0560	3	19	b7	35.8	54.8
1693	IPI00134746.2	52016	EQGYDVIAYLANIGQK	891.9565	2	37	y9	50.5	87.5
1694	IPI00134746.2	52016	EQGYDVIAYLANIGQK	594.6405	3	45	y6	65.2	110.2
1695	IPI00134746.2	52016	EQGYDVIAYLANIGQK	891.9573	2	67	y8	44.3	111.3
1696	IPI00134746.2	52016	GQVYILGR	453.2643	2	26	y6	46.8	72.8
1697	IPI00134746.2	52016	GRNDLMEYAK	598.7907	2	35	c b7	35.8	70.8
1698	IPI00134746.2	52016	GRNDLMEYAK	399.5294	3	35	y5	69.8	104.8
1699	IPI00134746.2	52016	IDIVENR	429.7381	2	44	y4	29.5	73.5
1700	IPI00134746.2	52016	KVFIEDVSK	532.8033	2	27	y7	61.4	88.4
1701	IPI00134746.2	52016	KVFIEDVSK	355.5376	3	29	c b4	16.9	45.9
1702	IPI00134746.2	52016	MPEFYNR	478.7188	2	34	P y6	53.0	87.0
1703	IPI00134746.2	52016	NQAPPLYTK	544.7910	2	37	P y7	69.8	106.8
1704	IPI00134746.2	52016	QGLGLK	308.1948	2	28		0.0	28.0
1705	IPI00134746.2	52016	RQVEIAQR	500.2889	2	59	b4	29.5	88.5
1706	IPI00134746.2	52016	SPWSMDENLMHISYEAGILENPK	888.0831	3	25	y7	46.8	71.8
1707	IPI00134746.2	52016	SPWSMDENLMHISYEAGILENPK	888.0837	3	36	y7	61.4	97.4
1708	IPI00134746.2	52016	VFIEDVSK	468.7562	2	27	y6	95.7	122.7
1709	IPI00134746.2	52016	VIAPWR	371.2242	2	24		0.0	24.0
1710	IPI00134746.2	52016	VQVSVFK	403.7424	2	22	y5	75.6	97.6
1711	IPI00134746.2	52016	VQVSVFK	806.4850	1	26	y4	57.1	83.1
1712	IPI00123924.1	46140	ELISQFLLNR	616.8539	2	60	y7	35.8	95.8
1713	IPI00123924.1	46140	IVEAVK	329.7107	2	20	y5	69.8	89.8
1714	IPI00123924.1	46140	MQHLEQTLNK	414.5486	3	20		0.0	20.0
1715	IPI00123924.1	46140	MQHLEQTLNK	621.3193	2	46	y8	58.1	104.1
1716	IPI00353727.3	36288	GLGTDNTLIR	587.8084	2	59	y7	22.4	81.4
1717	IPI00353727.3	36288	SELSSNFEQVILGLMTPTVLYDVQELRR	1080.5668	3	76	b7	0.6	76.6
1718	IPI00353727.3	36288	SELSSNFEQVILGLMTPTVLYDVQELRR	1080.2344	3	85		0.0	85.0
1719	IPI00353727.3	36288	SELSSNFEQVILGLMTPTVLYDVQELRR	1080.5679	3	89	y6	8.5	97.5

1720	IPI00130589.2	16104	DGVANVSIEDR	587.7882	2	50	y5	14.6	64.6
1721	IPI00130589.2	16104	DGVANVSIEDR	587.7882	2	58	y5	27.2	85.2
1722	IPI00130589.2	16104	DGVANVSIEDRVISLSGEHSIIGR	842.1067	3	36	y8	25.4	61.4
1723	IPI00130589.2	16104	DGVANVSIEDRVISLSGEHSIIGR	842.1128	3	42	y9	42.2	84.2
1724	IPI00130589.2	16104	GDGPVQGTIHFEQK	504.9198	3	21		0.0	21.0
1725	IPI00130589.2	16104	GDGPVQGTIHFEQK	756.8855	2	48	y8	58.1	106.1
1726	IPI00130589.2	16104	GDGPVQGTIHFEQK	756.8855	2	52	y5	53.0	105.0
1727	IPI00130589.2	16104	HGGPADEERHVGDLGNVTAGK	530.0099	4	21		0.0	21.0
1728	IPI00130589.2	16104	HGGPADEERHVGDLGNVTAGK	706.3479	3	25	y++15	29.5	54.5
1729	IPI00130589.2	16104	HGGPADEERHVGDLGNVTAGK	706.0187	3	26	y10	29.0	55.0
1730	IPI00130589.2	16104	HGGPADEERHVGDLGNVTAGK	529.7595	4	32		0.0	32.0
1731	IPI00130589.2	16104	HVGDLGNVTAGK	584.3092	2	38	y10	36.9	74.9
1732	IPI00130589.2	16104	HVGDLGNVTAGK	389.8755	3	47	c b7	33.8	80.8
1733	IPI00130589.2	16104	KHGGPADEER	365.8441	3	55	y4	27.2	82.2
1734	IPI00130589.2	16104	KHGGPADEERHVGDLGNVTAGK	748.7110	3	15	y8	32.0	47.0
1735	IPI00130589.2	16104	TMVVHEK	843.4511	1	21	b6	49.6	70.6
1736	IPI00130589.2	16104	TMVVHEK	422.2237	2	37	y4	29.5	66.5
1737	IPI00130589.2	16104	VISLSGEHSIIGR	456.5933	3	21	y++11	102.9	123.9
1738	IPI00130589.2	16104	VISLSGEHSIIGR	684.3884	2	56	y9	44.3	100.3
1739	IPI00126248.1	120564	AFDSGIIPEFVNK	784.3948	2	66	P y7	95.7	161.7
1740	IPI00126248.1	120564	AFDSGIIPEFVNK	784.3949	2	70	P y7	95.7	165.7
1741	IPI00126248.1	120564	EILIPVFK	479.8027	2	19		0.0	19.0
1742	IPI00126248.1	120564	IGNTGGMLDNILASK	752.8954	2	50		0.0	50.0
1743	IPI00126248.1	120564	LGLVGVNLSLDGVK	692.4134	2	57	y8	21.2	78.2
1744	IPI00126248.1	120564	SFDELGEIISVYEDLVAK	1078.5423	2	76	c b8	5.4	81.4
1745	IPI00126248.1	120564	SFDELGEIISVYEDLVAK	1078.5425	2	78		0.0	78.0
1746	IPI00230034.3	13183	FFPLEAWQIGK	668.3627	2	28	y5	57.1	85.1
1747	IPI00230034.3	13183	FFPLEAWQIGK	668.3627	2	45	y7	23.8	68.8
1748	IPI00230034.3	13183	FFPLEAWQIGK	668.3578	2	53	y5	38.2	91.2
1749	IPI00230034.3	13183	FLTEELSLDQDR	733.3602	2	44		0.0	44.0
1750	IPI00230034.3	13183	FLTEELSLDQDR	733.3601	2	46	y4	41.0	87.0
1751	IPI00230034.3	13183	FLTEELSLDQDRIVIR	974.5310	2	19	y7	25.4	44.4
1752	IPI00230034.3	13183	FLTEELSLDQDRIVIR	974.5306	2	20	y7	44.5	64.5
1753	IPI00230034.3	13183	FLTEELSLDQDRIVIR	649.6900	3	22	y++13	27.7	49.7
1754	IPI00230034.3	13183	FLTEELSLDQDRIVIR	649.6948	3	53		0.0	53.0
1755	IPI00230034.3	13183	GTVMTFL	768.3967	1	23	b6	15.6	38.6
1756	IPI00230034.3	13183	IPAGLENR	435.2457	2	50	y5	16.9	66.9
1757	IPI00230034.3	13183	IPAGLENR	435.2457	2	51	y6	25.4	76.4
1758	IPI00230034.3	13183	KGTVMFTL	448.7493	2	39	b6	15.6	54.6
1759	IPI00230034.3	13183	VSVTIRPGMTLLMNK	554.3157	3	16		0.0	16.0
1760	IPI00230034.3	13183	VSVTIRPGMTLLMNK	553.9810	3	20		0.0	20.0

1761	IPI00122862.2	101820	ASQAPSSFQLLYDLK	834.9364	2	43		0.0	43.0
1762	IPI00122862.2	101820	ASQAPSSFQLLYDLK	834.9363	2	45	y4	32.3	77.3
1763	IPI00122862.2	101820	ERASFITPVPGGVGPMTVAMLMQSTVESAQ	1083.5470	3	44	y4	8.5	52.5
1764	IPI00122862.2	101820	ERASFITPVPGGVGPMTVAMLMQSTVESAQ	1083.5477	3	51	y4	29.5	80.5
1765	IPI00122862.2	101820	FSDIQIR	439.7401	2	19	y5	75.6	94.6
1766	IPI00122862.2	101820	IFHELTQTDK	411.2157	3	17	y++9	23.8	40.8
1767	IPI00122862.2	101820	IFHELTQTDK	616.3196	2	31	y7	23.8	54.8
1768	IPI00122862.2	101820	IYGADDIELLPEAQNK	894.9544	2	67	P y6	77.6	144.6
1769	IPI00122862.2	101820	LIGNLAR	378.7398	2	25	y5	38.2	63.2
1770	IPI00122862.2	101820	MFGVPPVVAVNVFK	753.9332	2	43		0.0	43.0
1771	IPI00122862.2	101820	THLSLSHNPEQK	464.2408	3	23	P y4	20.6	43.6
1772	IPI00122862.2	101820	TPVPSDIAISR	578.3227	2	55	P y8	69.8	124.8
1773	IPI00122862.2	101820	VVGDVAYDEAK	583.2908	2	50	y9	81.7	131.7
1774	IPI00122862.2	101820	YVVVTGITPTPLGEGK	815.9573	2	71	P y8	21.2	92.2
1775	IPI00230707.4	28456	AYSEAHEISK	567.7754	2	59	y8	58.1	117.1
1776	IPI00230707.4	28456	DSTLIMQLLR	595.3350	2	47	y5	25.4	72.4
1777	IPI00230707.4	28456	DSTLIMQLLR	595.3350	2	48	y5	41.0	89.0
1778	IPI00230707.4	28456	LAEQAERYDDMAAMK	604.9482	3	40	y5	38.2	78.2
1779	IPI00230707.4	28456	NLLSVAYK	454.2662	2	22	y5	75.6	97.6
1780	IPI00230707.4	28456	TAFDDAIAELDTLNEDSYK	1066.4920	2	67	y6	82.7	149.7
1781	IPI00230707.4	28456	TAFDDAIAELDTLNEDSYK	1066.4918	2	75	y6	53.0	128.0
1782	IPI00230707.4	28456	TAFDDAIAELDTLNEDSYKDSTLIMQLLR	1101.8817	3	62	y6	13.7	75.7
1783	IPI00230707.4	28456	VDREQLVQK	578.8198	2	28		0.0	28.0
1784	IPI00230707.4	28456	VISSIEQK	452.2611	2	30	y6	53.0	83.0
1785	IPI00230707.4	28456	YLAEVATGEK	540.7825	2	49	y7	46.8	95.8
1786	IPI00122344.1	44166	AVAALDGAK	408.2349	2	30	y7	33.8	63.8
1787	IPI00122344.1	44166	AVVLPISLATTFFKQDFPGQSSGFEYSR	983.1737	3	42	y7	12.9	54.9
1788	IPI00122344.1	44166	AVVLPISLATTFFKQDFPGQSSGFEYSR	982.8394	3	45	y++12	19.2	64.2
1789	IPI00122344.1	44166	DASLSGFLPSFQHFATQAIHVGQEPEQWNSR	1162.8999	3	32	P y7	38.2	70.2
1790	IPI00122344.1	44166	DASLSGFLPSFQHFATQAIHVGQEPEQWNSR	1162.9001	3	34		0.0	34.0
1791	IPI00122344.1	44166	DRATLGINDTLIR	486.6078	3	35	c b7	7.7	42.7
1792	IPI00122344.1	44166	FLETNPR	438.7324	2	43	y5	38.2	81.2
1793	IPI00122344.1	44166	GALQHAK	362.7088	2	24	y5	38.2	62.2
1794	IPI00122344.1	44166	LLEAAITPQTK	592.8483	2	57	P y4	62.3	119.3
1795	IPI00122344.1	44166	LSVGLEDEQDLLEDLDR	979.9807	2	44	y6	27.2	71.2
1796	IPI00122344.1	44166	LSVGLEDEQDLLEDLDR	980.4813	2	46	y5	25.4	71.4
1797	IPI00122344.1	44166	LSVGLEDEQDLLEDLDR	980.4812	2	52	y5	25.4	77.4
1798	IPI00122344.1	44166	LVWIETPTNPTLK	756.4278	2	27	P y7	33.8	60.8
1799	IPI00122344.1	44166	QDFPGQSSGFEYSR	803.3535	2	61	y7	33.8	94.8
1800	IPI00122344.1	44166	RVASEFGLK	503.7875	2	31	b5	25.4	56.4
1801	IPI00122344.1	44166	VASEFGLK	425.7371	2	20	y6	49.6	69.6

1802	IPI00331436.1	56549	ANKPGDVVR	478.2695	2	26	P y6	69.8	95.8
1803	IPI00331436.1	56549	ANKPGDVVR	319.1824	3	30	P y6	14.6	44.6
1804	IPI00331436.1	56549	ASANMDLMR	504.7344	2	46	y7	22.4	68.4
1805	IPI00331436.1	56549	EFVTHTK	431.2271	2	22	y5	32.3	54.3
1806	IPI00331436.1	56549	GITFDSSGGISIK	597.8218	2	55	y8	42.2	97.2
1807	IPI00331436.1	56549	GMSGRPTR	431.2216	2	16		0.0	16.0
1808	IPI00331436.1	56549	GSEPPVFLEIHMGSPNATEAPLVFVGK	1039.5240	3	23	P y7	49.6	72.6
1809	IPI00331436.1	56549	GSEPPVFLEIHMGSPNATEAPLVFVGK	1039.5191	3	32		0.0	32.0
1810	IPI00331436.1	56549	GSEPPVFLEIHMGSPNATEAPLVFVGK	1039.5242	3	36	P y++13	27.7	63.7
1811	IPI00331436.1	56549	GVLFGSQNLAR	616.8405	2	65	y7	22.4	87.4
1812	IPI00331436.1	56549	HLMESPANEMTPTR	538.5855	3	23	y4	41.0	64.0
1813	IPI00331436.1	56549	LREMLNISGPPLK	489.9503	3	20	y6	38.2	58.2
1814	IPI00331436.1	56549	MPLFEHYTR	597.2917	2	33	y6	38.2	71.2
1815	IPI00331436.1	56549	SWIEEQEMGSFLSVAK	921.4438	2	52	y8	5.4	57.4
1816	IPI00331436.1	56549	SWIEEQEMGSFLSVAK	921.4440	2	80	y4	57.1	137.1
1817	IPI00331436.1	56549	TIQVDNTDAEGR	659.8157	2	60	y9	29.0	89.0
1818	IPI00331436.1	56549	TLIEFLLR	502.8138	2	31	y6	82.7	113.7
1819	IPI00400148.1	26734	GISEETTTGVHNLK	550.2779	3	18	y++10	23.8	41.8
1820	IPI00400148.1	26734	VNIKPQVDR	534.8125	2	27	P y5	69.8	96.8
1821	IPI00400148.1	26734	VPAINVNDSVTK	628.8463	2	52	y6	65.2	117.2
1822	IPI00400148.1	26734	VPAINVNDSVTK	629.3380	2	63		0.0	63.0
1823	IPI00400148.1	26734	VPAINVNDSVTK	628.8463	2	64	y8	58.1	122.1
1824	IPI00338855.1	25913	FNLGLDFPNLPYLIDGSHK	721.0447	3	27		0.0	27.0
1825	IPI00338855.1	25913	GLTHSIR	392.2270	2	23	y5	25.4	48.4
1826	IPI00338855.1	25913	PMTLGYWNR	619.8030	2	44	y6	1.4	45.4
1827	IPI00338855.1	25913	RPWFAGDK	488.7536	2	40	c b7	6.6	46.6
1828	IPI00338855.1	25913	VTQSNAILR	501.2905	2	52	y7	13.7	65.7
1829	IPI00338855.1	25913	VTYVDFLAYDILDQYR	998.0035	2	28	y4	44.5	72.5
1830	IPI00128434.1	45254	AFEEEEQALR	546.7694	2	50	y6	13.7	63.7
1831	IPI00128434.1	45254	EMGDHLVK	464.7320	2	16		0.0	16.0
1832	IPI00128434.1	45254	EVVSHVIK	455.7715	2	17		0.0	17.0
1833	IPI00128434.1	45254	FAVLQTYGDTTHTLVEK	641.6680	3	24	y++10	6.6	30.6
1834	IPI00128434.1	45254	HNHQGFAGNFNSLKF	592.2850	3	52		0.0	52.0
1835	IPI00128434.1	45254	HNHQGFAGNFNSLKF	888.4270	2	59	c b4	8.5	67.5
1836	IPI00128434.1	45254	IVREPWVEQDK	466.9174	3	16	y5	25.4	41.4
1837	IPI00128434.1	45254	IVREPWVEQDK	699.8783	2	34		0.0	34.0
1838	IPI00128434.1	45254	MGFEPLAYR	542.2728	2	49	P y5	82.7	131.7
1839	IPI00128434.1	45254	MPINEPAPGR	541.2771	2	56	P y5	14.6	70.6
1840	IPI00128434.1	45254	NLQFHR	407.7196	2	23		0.0	23.0
1841	IPI00128434.1	45254	PMQDRPTLFLEVIQR	615.0015	3	49	y5	16.9	65.9
1842	IPI00128434.1	45254	SIVVTNYEESIK	691.3659	2	69	y7	95.7	164.7

1843	IPI00128434.1	45254	SQIQEYVDYNGGAGVQHIALK	764.3872	3	28		0.0	28.0
1844	IPI00128434.1	45254	TEDIITAIR	516.2909	2	55	y7	77.6	132.6
1845	IPI00227822.4	36661	ALEVLVAK	421.7709	2	39	y6	116.0	155.0
1846	IPI00227822.4	36661	ALGLSNFNSR	539.7865	2	30	y6	27.2	57.2
1847	IPI00227822.4	36661	AVPREELFVTSK	688.3874	2	28	c b8	46.8	74.8
1848	IPI00227822.4	36661	AWRHPDEPVLLEEPVVLALAEK	628.5953	4	37	P y++9	75.6	112.6
1849	IPI00227822.4	36661	HALSAGYR	437.7306	2	28	y6	23.8	51.8
1850	IPI00227822.4	36661	HHPEDVEPALRK	476.5847	3	20	P y5	16.9	36.9
1851	IPI00227822.4	36661	ILQNIQVDFDFTFSPEEMK	1094.0525	2	18		0.0	18.0
1852	IPI00227822.4	36661	ILQNIQVDFDFTFSPEEMK	1094.0471	2	59	y6	69.8	128.8
1853	IPI00227822.4	36661	ILQNIQVDFDFTFSPEEMK	1094.0468	2	70	P y5	69.8	139.8
1854	IPI00227822.4	36661	MPLIGLGTWK	558.3174	2	34	y6	57.1	91.1
1855	IPI00227822.4	36661	QLDALNK	401.2271	2	26		0.0	26.0
1856	IPI00227822.4	36661	SPAQILLR	449.2796	2	60		0.0	60.0
1857	IPI00227822.4	36661	TASSVLLHTGQK	642.3523	2	57	y5	53.0	110.0
1858	IPI00227822.4	36661	TLADLQLEYLDLYLMHWPYAFER	967.8203	3	24	P y6	14.6	38.6
1859	IPI00227822.4	36661	TLADLQLEYLDLYLMHWPYAFER	967.8204	3	30		0.0	30.0
1860	IPI00330760.4	26907	DLGATWVVLGHSER	513.9358	3	20	y++10	77.6	97.6
1861	IPI00330760.4	26907	DLGATWVVLGHSERR	565.9691	3	18		0.0	18.0
1862	IPI00330760.4	26907	ELASQPDVDGFLVGGASLKPEFVDIINAK	1010.8656	3	18		0.0	18.0
1863	IPI00330760.4	26907	ELASQPDVDGFLVGGASLKPEFVDIINAK	1010.8698	3	29		0.0	29.0
1864	IPI00330760.4	26907	ELASQPDVDGFLVGGASLKPEFVDIINAK	1011.1994	3	31	b5 P	18.5	49.5
1865	IPI00330760.4	26907	ELASQPDVDGFLVGGASLKPEFVDIINAK	1011.1997	3	41	b5 P	6.2	47.2
1866	IPI00330760.4	26907	ELASQPDVDGFLVGGASLKPEFVDIINAKQ	1053.5531	3	31		0.0	31.0
1867	IPI00330760.4	26907	ELASQPDVDGFLVGGASLKPEFVDIINAKQ	1053.5526	3	34	b5 P	18.5	52.5
1868	IPI00330760.4	26907	FFVGGNWK	477.7460	2	27	y5	44.5	71.5
1869	IPI00330760.4	26907	HVFGESDELIGQK	486.9123	3	39	y4	15.6	54.6
1870	IPI00330760.4	26907	LDEREAGITEK	630.8246	2	22		0.0	22.0
1871	IPI00330760.4	26907	LDEREAGITEK	420.8864	3	26	y5	32.3	58.3
1872	IPI00330760.4	26907	RHVFGESDELIGQK	538.9461	3	63	y4	49.1	112.1
1873	IPI00330760.4	26907	SNVNDGVAQSTR	624.3032	2	61	y5	35.8	96.8
1874	IPI00330760.4	26907	TATPQQAQEVHEK	489.5796	3	16		0.0	16.0
1875	IPI00330760.4	26907	TATPQQAQEVHEK	733.8650	2	35	y++11	32.0	67.0
1876	IPI00330760.4	26907	VIADNVK	758.4430	1	34	y5	27.2	61.2
1877	IPI00330760.4	26907	VTNGAFTGEISPGMIK	811.4145	2	57	P y5	49.1	106.1
1878	IPI00330760.4	26907	VVFEQTK	425.7371	2	26	y5	69.8	95.8
1879	IPI00330760.4	26907	VVLAYEPVWAIGTGK	534.9720	3	46		0.0	46.0
1880	IPI00130640.1	18576	AAYQVAALPR	530.3008	2	31	c b8	5.6	36.6
1881	IPI00130640.1	18576	AAYQVAALPR	530.3008	2	51	c b7	1.4	52.4
1882	IPI00130640.1	18576	GSRVEIEIAVQGPFIKA	629.3572	3	22		0.0	22.0
1883	IPI00130640.1	18576	TTVLLADMNDFGTVNEIYK	1073.0376	2	18		0.0	18.0

1884	IPI00130640.1	18576	TTVLLADMNDFGTVNEIYK	1073.0314	2	61	y5	75.6	136.6
1885	IPI00130640.1	18576	TTVLLADMNDFGTVNEIYK	1073.0362	2	65	y5	53.0	118.0
1886	IPI00130640.1	18576	TTVLLADMNDFGTVNEIYK	1073.0359	2	66	y5	75.6	141.6
1887	IPI00130640.1	18576	TYFQGS LPAR	570.2962	2	43	y8	30.4	73.4
1888	IPI00130640.1	18576	VEIEAIAVQGPFIKA	792.9527	2	19	y6	25.4	44.4
1889	IPI00130640.1	18576	VEIEAIAVQGPFIKA	793.4551	2	31	P y5	97.9	128.9
1890	IPI00321734.5	20997	ATLELTHNWGTEDDETQSYHNGNSDPR	1030.1178	3	22		0.0	22.0
1891	IPI00321734.5	20997	DFLLQQTMLR	632.8410	2	54	y7	23.8	77.8
1892	IPI00321734.5	20997	GLAFIQDPDGYWIEILNPNK	1152.5891	2	63	y7	35.8	98.8
1893	IPI00321734.5	20997	GLAFIQDPDGYWIEILNPNK	1152.5889	2	66		0.0	66.0
1894	IPI00321734.5	20997	GLAFIQDPDGYWIEILNPNK	1152.5894	2	67		0.0	67.0
1895	IPI00321734.5	20997	LDFPAMK	411.2149	2	30	y6	49.6	79.6
1896	IPI00321734.5	20997	RFEELGVK	489.2748	2	45	c b4	44.5	89.5
1897	IPI00321734.5	20997	SLDFYTR	451.2248	2	19	y5	69.8	88.8
1898	IPI00321734.5	20997	VLGLTLLQK	492.8263	2	66	y5	97.9	163.9
1899	IPI00131438.1	70051	AINPENGGFGVAPGTSVK	902.9646	2	32	y7	23.8	55.8
1900	IPI00131438.1	70051	AINPENGGFGVAPGTSVK	903.4642	2	52	P y6	14.6	66.6
1901	IPI00131438.1	70051	EIISFGSGYGGNSLLGK	849.9398	2	60		0.0	60.0
1902	IPI00131438.1	70051	EIISFGSGYGGNSLLGK	849.9397	2	76	y8	12.9	88.9
1903	IPI00131438.1	70051	EVEEIDRYLEDQVNTDLPYEIER	956.7921	3	50	P y6	49.6	99.6
1904	IPI00131438.1	70051	FLWPGFGENSR	655.3204	2	26	P y8	55.3	81.3
1905	IPI00131438.1	70051	GLGGVNVEELFGISK	760.4120	2	36	y5	6.2	42.2
1906	IPI00131438.1	70051	TMYVIPFSMGPLGSPLAK	955.0032	2	39		0.0	39.0
1907	IPI00131438.1	70051	TNLAMMNPSLPGWK	780.3869	2	21	P y4	20.6	41.6
1908	IPI00131438.1	70051	TVIITQEQR	544.3096	2	40	y7	12.9	52.9
1909	IPI00131438.1	70051	VLEWMFGR	519.2664	2	37	y6	49.6	86.6
1910	IPI00121126.2	30697	AQGSVALSVTQDPAR	750.3989	2	50	y8	12.2	62.2
1911	IPI00121126.2	30697	AWLDGHSR	471.2334	2	21	y5	44.5	65.5
1912	IPI00121126.2	30697	AWLDGHSR	471.2333	2	29	y6	22.4	51.4
1913	IPI00121126.2	30697	AWLDGHSR	314.4913	3	30		0.0	30.0
1914	IPI00121126.2	30697	DLGTQLAPIIQEFFHSEQYR	1197.1074	2	46	y6	14.6	60.6
1915	IPI00121126.2	30697	QDVDVWLWQQEGSSK	903.4293	2	79	y8	40.2	119.2
1916	IPI00121126.2	30697	QDVDVWLWQQEGSSK	902.9294	2	81	y8	55.3	136.3
1917	IPI00121126.2	30697	QGEIFLLPAR	572.3349	2	32		0.0	32.0
1918	IPI00121126.2	30697	TGKPNPDQLLK	605.8434	2	16	P y8	58.1	74.1
1919	IPI00121126.2	30697	TGKPNPDQLLK	404.2316	3	29	y4	20.6	49.6
1920	IPI00121126.2	30697	VLEQQQHR	483.7597	2	43	y6	22.4	65.4
1921	IPI00121126.2	30697	YYVGDTEVDLFEK	789.3723	2	27		0.0	27.0
1922	IPI00118384.1	29326	AAFDDAIAELDTLSEESYKDSTLIMQLLR	1087.2085	3	63	y5	38.2	101.2
1923	IPI00118384.1	29326	DNLTLWTSMDMQGDGEEQNK	1091.4776	2	62	y8	21.2	83.2
1924	IPI00118384.1	29326	EAAENSLVAYK	597.8040	2	45	y7	61.4	106.4

1925	IPI00118384.1	29326	HLIPAANTGESK	619.3306	2	32	P y9	85.6	117.6
1926	IPI00118384.1	29326	MDDREDLVYQAK	762.8537	2	44	y6	38.2	82.2
1927	IPI00118384.1	29326	MKGDYHR	453.7167	2	38	y5	16.9	54.9
1928	IPI00118384.1	29326	QMVETELK	489.2521	2	47		0.0	47.0
1929	IPI00118384.1	29326	YLAEFATGNDRK	692.8483	2	37	y7	23.8	60.8
1930	IPI00123313.1	118931	AAVASLLQSVQVPEFTPK	943.5246	2	21	P y6	82.7	103.7
1931	IPI00123313.1	118931	AAVASLLQSVQVPEFTPK	943.5281	2	34	c b7	0.9	34.9
1932	IPI00123313.1	118931	LAYVAAGDLAPINAFIGGLAAQEVMK	868.8014	3	21	b10 P	19.2	40.2
1933	IPI00123313.1	118931	NGFLNLALPFFGFSEPLAAPR	1140.6011	2	41		0.0	41.0
1934	IPI00123313.1	118931	VGPDTERIYDDDFQNLGDGVANALDNIDAR	1123.8650	3	62	y7	46.8	108.8
1935	IPI00230185.3	38176	ANTIGISLIK	515.3191	2	39	y4	57.1	96.1
1936	IPI00230185.3	38176	DLMQTPNFR	561.2746	2	27	P y4	41.0	68.0
1937	IPI00230185.3	38176	DPAQGQLLK	485.2718	2	23	y5	57.1	80.1
1938	IPI00230185.3	38176	ELHSILQHK	552.8120	2	36		0.0	36.0
1939	IPI00230185.3	38176	GLVDFKPLFTAVYK	533.3045	3	24		0.0	24.0
1940	IPI00230185.3	38176	IVGSNAGR	387.2168	2	42	y6	25.4	67.4
1941	IPI00230185.3	38176	KLTEINTQHENVK	556.3080	3	31	y5	44.5	75.5
1942	IPI00230185.3	38176	LGIPMSVLMGANIASEVAEEK	1080.5596	2	50	c b9	11.0	61.0
1943	IPI00230185.3	38176	LGLMEMIAFAK	612.3301	2	73	y7	65.2	138.2
1944	IPI00230185.3	38176	LISEVIGER	508.2926	2	42	y7	46.8	88.8
1945	IPI00230185.3	38176	LPPNVVAIPDVVQAATGADILVFVVPHQFIGK	1109.2958	3	31	P y7	65.2	96.2
1946	IPI00230185.3	38176	LTEIINTQHENVK	513.6112	3	19		0.0	19.0
1947	IPI00230185.3	38176	LTEIINTQHENVK	769.9201	2	73	y8	58.1	131.1
1948	IPI00408407.1	28797	ALPFWNEEIVPQIK	842.4608	2	30	y5	49.1	79.1
1949	IPI00408407.1	28797	ALPFWNEEIVPQIK	842.9605	2	53	P y4	75.6	128.6
1950	IPI00408407.1	28797	AMEAVAAQ GK	488.2502	2	65	y5	75.6	140.6
1951	IPI00408407.1	28797	FSGWYDADLSPAGHEEAK	660.6370	3	32		0.0	32.0
1952	IPI00408407.1	28797	HGESAWNLENR	656.8047	2	70	y6	53.0	123.0
1953	IPI00408407.1	28797	HYGGLTGLNK	530.2834	2	38	y8	69.8	107.8
1954	IPI00408407.1	28797	NLKPIKPMQFLGDEETVRK	748.7432	3	28		0.0	28.0
1955	IPI00408407.1	28797	RGGQALR	379.2252	2	28	b5	13.7	41.7
1956	IPI00408407.1	28797	RVLIAAHGNSLR	436.2615	3	56	y5	38.2	94.2
1957	IPI00408407.1	28797	TLWTVLDAIDQMWLPVVR	1079.0839	2	18	y5	35.8	53.8
1958	IPI00408407.1	28797	TLWTVLDAIDQMWLPVVR	1079.0841	2	31	y5	49.6	80.6
1959	IPI00112719.1	36456	AGADIITYFAPQLLK	867.4953	2	63	y6	38.2	101.2
1960	IPI00112719.1	36456	DAAQSSPAFGDRR	689.3281	2	38		0.0	38.0
1961	IPI00112719.1	36456	DEQGSAADESDSPTIEAVR	988.9393	2	74	P y7	46.8	120.8
1962	IPI00112719.1	36456	DIQEGADMLMVKPLPYLDMVR	831.4196	3	16	P y++10	57.1	73.1
1963	IPI00112719.1	36456	LAEVALAYAK	524.8057	2	43	y8	44.3	87.3
1964	IPI00112719.1	36456	MHHQSVLHSGYFHPLLR	421.0167	5	21		0.0	21.0
1965	IPI00112719.1	36456	VSVMSYSAK	486.2468	2	31	y6	62.3	93.3

1966	IPI00112719.1	36456	YGVNQLEEMLRPLVEAGLR	729.7226	3	22		0.0	22.0
1967	IPI00112719.1	36456	YGVNQLEEMLRPLVEAGLR	730.0580	3	46		0.0	46.0
1968	IPI00112719.1	36456	YGVNQLEEMLRPLVEAGLR	730.0605	3	47	P y8	30.4	77.4
1969	IPI00400050.1	68093	QGWLM EVTDSLDR	775.3700	2	45	y6	5.9	50.9
1970	IPI00336324.4	40541	AIADHIR	398.2273	2	36	y5	44.5	80.5
1971	IPI00336324.4	40541	DLDVAVLVGSMR	686.3671	2	23	y5	16.9	39.9
1972	IPI00336324.4	40541	DLDVAVLVGSMR	686.3691	2	61	y5	29.5	90.5
1973	IPI00336324.4	40541	ETAFEFLSSA	1101.5093	1	30		0.0	30.0
1974	IPI00336324.4	40541	ETAFEFLSSA	1101.5141	1	31		0.0	31.0
1975	IPI00336324.4	40541	EVGVYEALK	1007.5436	1	35		0.0	35.0
1976	IPI00336324.4	40541	EVGVYEALK	504.2739	2	49	y5	69.8	118.8
1977	IPI00336324.4	40541	EVGVYEALKDDSWLK	876.4460	2	54	y4	62.3	116.3
1978	IPI00336324.4	40541	FVEGLPINDFSR	697.3683	2	36	P y7	61.4	97.4
1979	IPI00336324.4	40541	FVEGLPINDFSR	697.3683	2	50	P y7	77.6	127.6
1980	IPI00336324.4	40541	GAAVIK	558.3606	1	22		0.0	22.0
1981	IPI00336324.4	40541	GEFITTQQQR	589.8125	2	55	y6	27.2	82.2
1982	IPI00336324.4	40541	LGVTADDVK	459.2509	2	28	y6	69.8	97.8
1983	IPI00336324.4	40541	LSSAMSAK	433.2260	2	22	y7	49.6	71.6
1984	IPI00336324.4	40541	REGMER	389.1876	2	20	c b5	25.4	45.4
1985	IPI00336324.4	40541	SQIALK	330.2081	2	31	c b5	25.4	56.4
1986	IPI00336324.4	40541	SQIALK	659.4078	1	38	c b4	29.5	67.5
1987	IPI00137409.2	69165	DAIVQAVK	422.2508	2	23		0.0	23.0
1988	IPI00137409.2	69165	GHAAPILYAVWAEAGFLPEAELNLRK	738.4083	4	25		0.0	25.0
1989	IPI00137409.2	69165	HQPTAIIAK	489.7904	2	19	P y7	49.6	68.6
1990	IPI00137409.2	69165	IIALDGDTK	473.2668	2	27	y7	61.4	88.4
1991	IPI00137409.2	69165	LAVSQVPR	435.2640	2	50	y6	53.0	103.0
1992	IPI00137409.2	69165	LDNLVAIFDINR	701.8881	2	56	y7	22.4	78.4
1993	IPI00137409.2	69165	NMAEQIIQEIYSQVQSK	670.6717	3	39	y7	49.6	88.6
1994	IPI00137409.2	69165	NMAEQIIQEIYSQVQSK	670.3388	3	50	y7	49.6	99.6
1995	IPI00137409.2	69165	NMAEQIIQEIYSQVQSK	1005.0048	2	52	y6	49.6	101.6
1996	IPI00137409.2	69165	NMAEQIIQEIYSQVQSK	1005.5067	2	55	y6	53.0	108.0
1997	IPI00137409.2	69165	NMAEQIIQEIYSQVQSK	1005.5064	2	61	y7	49.6	110.6
1998	IPI00111218.1	57015	TFVQENVYDEFVER	888.4220	2	73	c b7	29.5	102.5
1999	IPI00111218.1	57015	VAEQTPLTALYVANLIK	923.0312	2	58	y7	33.8	91.8
2000	IPI00111218.1	57015	VAEQTPLTALYVANLIK	922.5341	2	67		0.0	67.0
2001	IPI00126172.1	35430	IAEVGGVPYLLPLV NK	841.9979	2	37		0.0	37.0
2002	IPI00126172.1	35430	IAEVGGVPYLLPLV NK	841.9980	2	53	c b7 P	13.7	66.7
2003	IPI00126172.1	35430	LPGAFILGAGAGPFQTLGFNSEFMPIVQTASEHNQPVNGS	950.6705	5	19	b9	13.7	32.7
2004	IPI00126172.1	35430	LPGAFILGAGAGPFQTLGFNSEFMPIVQTASEHNQPVNGS	1187.8476	4	45	b7	20.6	65.6
2005	IPI00126172.1	35430	LPGAFILGAGAGPFQTLGFNSEFMPIVQTASEHNQPVNGS	1188.3295	4	49	y++13	2.7	51.7
2006	IPI00126172.1	35430	LPGAFILGAGAGPFQTLGFNSEFMPIVQTASEHNQPVNGS	1188.0950	4	66	y++13	2.2	68.2

2007	IPI00126172.1	35430	LPGAFILGAGAGPFQTLGFNFSEFMPIVQTASEHNQPVNGS	1188.5918	4	73	y7	12.9	85.9
2008	IPI00126172.1	35430	QTLEEHYGDKPVGMMGGTFIVQK	812.4079	3	15	y8	33.8	48.8
2009	IPI00126172.1	35430	QTLEEHYGDKPVGMMGGTFIVQK	812.4079	3	28		0.0	28.0
2010	IPI00126172.1	35430	VIEVQAK	393.7397	2	25	y4	57.1	82.1
2011	IPI00126172.1	35430	VYDLNEIAK	532.7846	2	30	y7	102.5	132.5
2012	IPI00123927.1	46091	IFNSGADLSGITEENAPLK	989.0045	2	88	y8	58.1	146.1
2013	IPI00123927.1	46091	IFNSGADLSGITEENAPLK	989.0044	2	104	y++16	15.5	119.5
2014	IPI00123927.1	46091	LAQIHIPR	316.5310	3	31	c b5	20.6	51.6
2015	IPI00128857.1	64585	AIVVTDGER	480.2620	2	30	y6	25.4	55.4
2016	IPI00128857.1	64585	EVFAHEHEEMK	693.3117	2	38	y7	82.7	120.7
2017	IPI00128857.1	64585	GHIASVLNAWPEDVVK	867.9586	2	57	P y6	82.7	139.7
2018	IPI00128857.1	64585	GHIASVLNAWPEDVVK	867.9612	2	62	P y6	125.8	187.8
2019	IPI00128857.1	64585	LSDQTVLFQGAGEAALGIAHLVVMAMEK	967.5046	3	30	b6	13.7	43.7
2020	IPI00128857.1	64585	LSDQTVLFQGAGEAALGIAHLVVMAMEK	967.5090	3	48		0.0	48.0
2021	IPI00128857.1	64585	NLEAIVQK	457.7687	2	40	y6	53.0	93.0
2022	IPI00118899.1	105368	DDPVTNLNNAFEVAEK	888.4237	2	56	c b8	5.4	61.4
2023	IPI00118899.1	105368	RDHALLEEQSK	442.5652	3	28	y6	69.8	97.8
2024	IPI00118899.1	105368	VGWEQLLTTIAR	693.8915	2	68	y5	35.8	103.8
2025	IPI00118899.1	105368	VGWEQLLTTIAR	693.8915	2	72	y4	41.0	113.0
2026	IPI00118899.1	105368	VGWEQLLTTIAR	693.8915	2	77	y6	7.1	84.1
2027	IPI00118059.1	53065	ADRDLWASHEK	514.5833	3	41	y5	44.5	85.5
2028	IPI00118059.1	53065	AGMIFYR	429.2209	2	40	y4	83.9	123.9
2029	IPI00118059.1	53065	ALSDALTELGYS	640.8461	2	85	y6	38.2	123.2
2030	IPI00118059.1	53065	GLLEEDFQK	539.7745	2	23	y5	27.2	50.2
2031	IPI00118059.1	53065	IQSAVATLREEVENFASNFSPLGPLPDF	984.8328	3	20	y7	53.0	73.0
2032	IPI00118059.1	53065	IQSAVATLREEVENFASNFSPLGPLPDF	984.8329	3	28	P y6	69.8	97.8
2033	IPI00118059.1	53065	IQSAVATLREEVENFASNFSPLGPLPDF	984.8328	3	33		0.0	33.0
2034	IPI00118059.1	53065	LGTPALTSR	458.2667	2	40		0.0	40.0
2035	IPI00118059.1	53065	QAMTTEFK	478.2318	2	25		0.0	25.0
2036	IPI00118059.1	53065	SALRPSGLR	319.5261	3	21		0.0	21.0
2037	IPI00118059.1	53065	SALRPSGLR	478.7856	2	23	P y5	49.6	72.6
2038	IPI00118059.1	53065	VAHFIHR	440.2513	2	53		0.0	53.0
2039	IPI00118059.1	53065	VYPETGYINYDQLEENASLFHPK	910.1038	3	20		0.0	20.0
2040	IPI00118059.1	53065	VYPETGYINYDQLEENASLFHPK	910.1037	3	32		0.0	32.0
2041	IPI00228633.3	62956	EFGIDPQNMFEFWDVWVGR	1166.0231	2	65	y6	14.6	79.6
2042	IPI00228633.3	62956	EVMQMLVELAK	645.8439	2	62	y4	57.1	119.1
2043	IPI00228633.3	62956	GKLPEEARK	343.2015	3	33	c b5	7.7	40.7
2044	IPI00228633.3	62956	HFVALSTNTAK	594.8225	2	39	y9	40.2	79.2
2045	IPI00228633.3	62956	ILLANFLAQTEALMK	559.6538	3	26		0.0	26.0
2046	IPI00228633.3	62956	ILLANFLAQTEALMK	838.4768	2	65	y8	30.4	95.4
2047	IPI00228633.3	62956	LTPFILGALIAMYEHK	606.3397	3	22	y++13	18.3	40.3

2048	IPI00228633.3	62956	TLASLSPETSLFIIASK	889.5005	2	58		0.0	58.0
2049	IPI00228633.3	62956	VFEGNRPTNSIVFTK	570.3061	3	15	y++12	29.0	44.0
2050	IPI00121280.2	25864	GLAHAIR	369.2247	2	32	y4	57.1	89.1
2051	IPI00121280.2	25864	LGLDFPNLPYLIDGSHK	634.0061	3	32	c b5 P	18.5	50.5
2052	IPI00121280.2	25864	LGLDFPNLPYLIDGSHK	950.5054	2	39	c b5 P	7.7	46.7
2053	IPI00121280.2	25864	LGLDFPNLPYLIDGSHK	950.0068	2	51	y7	23.8	74.8
2054	IPI00311818.1	40320	ANQVIR	742.4265	1	23		0.0	23.0
2055	IPI00311818.1	40320	IIGIDINK	885.5399	1	35	y6	75.6	110.6
2056	IPI00311818.1	40320	IIGIDINK	443.2736	2	48	y6	69.8	117.8
2057	IPI00311818.1	40320	IKVDEFVTGNLSFDQINQAFDLMHSGDSIR	850.1683	4	51		0.0	51.0
2058	IPI00311818.1	40320	SALEAAHK	413.7246	2	42	y5	41.0	83.0
2059	IPI00311818.1	40320	SVESVPK	745.4083	1	15		0.0	15.0
2060	IPI00311818.1	40320	SVESVPK	373.2085	2	25	y4	16.9	41.9
2061	IPI00311818.1	40320	VDEFVTGNLSFDQINQAFDLMHSGDSIR	1053.1635	3	46		0.0	46.0
2062	IPI00311818.1	40320	VDEFVTGNLSFDQINQAFDLMHSGDSIR	1052.8325	3	57	b4	49.1	106.1
2063	IPI00311818.1	40320	VDEFVTGNLSFDQINQAFDLMHSGDSIR	1052.8278	3	58	y++16	9.3	67.3
2064	IPI00341613.2	36271	RVIISAPSANAPMFVMGVNHXK	593.3089	4	16	b6 P	23.8	39.8
2065	IPI00341613.2	36271	RVIISAPSANAPMFVMGVNHXK	593.0634	4	27		0.0	27.0
2066	IPI00341613.2	36271	RVIISAPSANAPMFVMGVNHXK	790.7565	3	33	b6 P	15.6	48.6
2067	IPI00320208.1	24849	TPAGLQVLNDYLDLADK	809.4278	2	77	y8	32.0	109.0
2068	IPI00320208.1	24849	TPAGLQVLNDYLDLADK	809.4276	2	90	y8	58.1	148.1
2069	IPI00270906.2	17002	EGMNIVEAMER	639.7936	2	43	y6	25.4	68.4
2070	IPI00270906.2	17002	FEDENFILK	577.7903	2	47	y7	82.7	129.7
2071	IPI00270906.2	17002	GSSFHR	345.6697	2	18	y4	15.6	33.6
2072	IPI00270906.2	17002	SIYGKFEFEDENFILK	916.4602	2	49	y5	57.1	106.1
2073	IPI00270906.2	17002	TAENFR	369.1826	2	19	y4	41.0	60.0
2074	IPI00270906.2	17002	TEWLDGK	424.7115	2	25	y5	102.5	127.5
2075	IPI00270906.2	17002	VNPTVFFDITADDEPLGR	1025.0018	2	35	P y4	41.0	76.0
2076	IPI00270906.2	17002	VNPTVFFDITADDEPLGR	1004.0012	2	63	y7	23.8	86.8
2077	IPI00270906.2	17002	VSFELFADK	528.2742	2	46	y4	89.0	135.0
2078	IPI00270906.2	17002	VSFELFADKVPK	460.5904	3	36		0.0	36.0
2079	IPI00114818.1	46727	AGEMTEVLPNQR	672.8382	2	58	P y4	41.0	99.0
2080	IPI00114818.1	46727	FDNTYSFIHAK	448.2194	3	18		0.0	18.0
2081	IPI00114818.1	46727	FDNTYSFIHAK	671.8276	2	54	y6	35.8	89.8
2082	IPI00114818.1	46727	FRENVQDVLPTLPNPDYFLLR	888.1272	3	19		0.0	19.0
2083	IPI00114818.1	46727	IISWQPPEVIQYLSGGR	691.3716	3	30	y5	13.7	43.7
2084	IPI00114818.1	46727	IISWQPPEVIQYLSGGR	1036.5540	2	43	c b5 P	62.3	105.3
2085	IPI00114818.1	46727	IISWQPPEVIQYLSGGR	1036.5546	2	47		0.0	47.0
2086	IPI00114818.1	46727	IISWQPPEVIQYLSGGR	1036.5542	2	50	y8	0.4	50.4
2087	IPI00114818.1	46727	IMVLGANWK	516.2893	2	38	y7	46.8	84.8
2088	IPI00114818.1	46727	INYGGDIPK	488.7590	2	36	y7	95.7	131.7

2089	IPI00114818.1	46727	LFPVAYNLIK	589.3554	2	22	P y8	44.3	66.3
2090	IPI00114818.1	46727	PFLSEDTR	482.7401	2	25	y6	14.6	39.6
2091	IPI00114818.1	46727	QQYEHTVQVSR	687.8424	2	22	y4	7.1	29.1
2092	IPI00114818.1	46727	RLFVVK	381.2555	2	26	b4	16.9	42.9
2093	IPI00114818.1	46727	SEAMLRK	417.7286	2	21	y4	16.9	37.9
2094	IPI00114818.1	46727	VGDLSPKQEEALAK	495.6037	3	22		0.0	22.0
2095	IPI00228820.3	25871	KKPEYLEGLPEK	715.9035	2	21		0.0	21.0
2096	IPI00228820.3	25871	KKPEYLEGLPEK	477.6012	3	24	y5	29.5	53.5
2097	IPI00136134.1	41105	AELQEVQITEEKPLLPGQTPETAK	898.1404	3	39		0.0	39.0
2098	IPI00136134.1	41105	AELQEVQITEEKPLLPGQTPETAK	898.1439	3	41	P y9	42.2	83.2
2099	IPI00136134.1	41105	FGDMQEIIQNFVR	798.8942	2	60	y5	6.6	66.6
2100	IPI00136134.1	41105	GIIQHAPNLENIELYWNSYNNRR	704.6083	4	57	y++13	16.8	73.8
2101	IPI00136134.1	41105	LDPTQTSFLK	575.3114	2	34	P y8	58.1	92.1
2102	IPI00136134.1	41105	PLLPGQTPETAK	626.3547	2	27	P y9	66.6	93.6
2103	IPI00136134.1	41105	YALNHPDVEGLVLINIDPNAK	803.0953	3	27	P y4	41.0	68.0
2104	IPI00136134.1	41105	YRGIIQHAPNLENIELYWNSYNNRR	784.4012	4	22		0.0	22.0
2105	IPI00396707.1	46039	ELDQDTV FALANYILFK	1001.0250	2	46	y8	5.6	51.6
2106	IPI00396707.1	46039	IFNNGADLSGITEENAPLK	668.6747	3	39	y8	21.2	60.2
2107	IPI00121209.1	30569	ARPALEDLR	347.5331	3	37		0.0	37.0
2108	IPI00121209.1	30569	DFANVYVDAVK	620.8142	2	46	y6	89.0	135.0
2109	IPI00121209.1	30569	DFWDNLEK	533.7457	2	15	y6	46.8	61.8
2110	IPI00121209.1	30569	KWKEDVELYR	455.9100	3	30	y4	15.6	45.6
2111	IPI00121209.1	30569	LGPLTR	328.7081	2	35	y5	41.0	76.0
2112	IPI00121209.1	30569	LQELQGR	422.2379	2	28	y4	27.2	55.2
2113	IPI00121209.1	30569	LSPVAEEFRDR	659.8419	2	18		0.0	18.0
2114	IPI00121209.1	30569	SNPTLNEYHTR	666.3224	2	46	y6	25.4	71.4
2115	IPI00121209.1	30569	THVDSL R	414.2220	2	28	y4	41.0	69.0
2116	IPI00121209.1	30569	TQLAPHSEQMR	649.3197	2	23	P y7	61.4	84.4
2117	IPI00121209.1	30569	VAPLGAELQESAR	670.8620	2	64	y5	15.6	79.6
2118	IPI00121209.1	30569	VQPYLDEFQK	633.8252	2	15	y5	44.5	59.5
2119	IPI00118676.3	46353	ATQALVLAPTR	570.8407	2	42	y4	16.9	58.9
2120	IPI00118676.3	46353	ELAQQIQK	479.2721	2	29	y4	20.6	49.6
2121	IPI00118676.3	46353	GIYAYGFEK	524.2608	2	23	y7	46.8	69.8
2122	IPI00118676.3	46353	GYDVIAQAQSGTGK	697.8578	2	87	y9	66.6	153.6
2123	IPI00118676.3	46353	LNSNTQVVLLSATMPSDVLEVTKK	863.4742	3	41		0.0	41.0
2124	IPI00118676.3	46353	MFVLDEADEMLSR	778.3611	2	49	y6	65.2	114.2
2125	IPI00118676.3	46353	PSAIQQR	400.2250	2	40	y5	15.6	55.6
2126	IPI00118676.3	46353	TLRDIETFYNTSIEEMPLNVADLI	933.4709	3	42	c b8	12.2	54.2
2127	IPI00110684.1	33102	DFAVDIIK	460.7585	2	24	y6	69.8	93.8
2128	IPI00110684.1	33102	DVFHVVVEVPR	443.2327	3	50	y4	29.5	79.5
2129	IPI00110684.1	33102	STHDYWK	468.7139	2	27	y5	44.5	71.5

2130	IPI00110684.1	33102	VIAINVDDPDAANYK	809.4085	2	70	P y7	33.8	103.8
2131	IPI00110684.1	33102	VLGILAMIDEGETDWK	895.4588	2	90	y8	61.4	151.4
2132	IPI00110684.1	33102	YVANLFPYK	557.8034	2	24	y7	46.8	70.8
2133	IPI00131803.1	20958	FKVETFR	463.7583	2	29	y4	29.5	58.5
2134	IPI00131803.1	20958	FREWHHFLVVNMK	436.7300	4	23	y4	62.3	85.3
2135	IPI00131803.1	20958	FREWHHFLVVNMK	581.6365	3	24	c b5	25.4	49.4
2136	IPI00131803.1	20958	FREWHHFLVVNMK	436.4794	4	25	y4	62.3	87.3
2137	IPI00131803.1	20958	FREWHHFLVVNMK	871.9503	2	46	c b5	14.6	60.6
2138	IPI00131803.1	20958	GNDISSGTVLSDYVGSPPSGTGLHR	844.4102	3	39		0.0	39.0
2139	IPI00131803.1	20958	GNDISSGTVLSDYVGSPPSGTGLHR	844.4100	3	47	y10	26.5	73.5
2140	IPI00131803.1	20958	LYEQLSGK	469.2533	2	46	y6	49.6	95.6
2141	IPI00131803.1	20958	VDYAGVTVDELGK	683.3489	2	59	y7	49.6	108.6
2142	IPI00131803.1	20958	VDYAGVTVDELGK	683.3489	2	66	y7	82.7	148.7
2143	IPI00131803.1	20958	VLTPQTQVMNRPSSISWDGLDPGK	833.7634	3	16	c b9	13.7	29.7
2144	IPI00131803.1	20958	VLTPQTQVMNRPSSISWDGLDPGK	833.7601	3	19		0.0	19.0
2145	IPI00131803.1	20958	VLTPQTQVMNRPSSISWDGLDPGK	833.7631	3	20	y9	38.2	58.2
2146	IPI00131803.1	20958	VLTPQTQVMNRPSSISWDGLDPGK	833.7632	3	22		0.0	22.0
2147	IPI00221636.1	33502	AADFPQELFSWE	720.3276	2	45	c b8	46.8	91.8
2148	IPI00221636.1	33502	EQVPWK	393.7108	2	15	y4	44.5	59.5
2149	IPI00221636.1	33502	GITGDWK	388.7004	2	25	y4	7.7	32.7
2150	IPI00221636.1	33502	IYFENFLQGK	629.8278	2	67	y8	90.2	157.2
2151	IPI00221636.1	33502	LMASLLPIQLFPK	736.4421	2	34	P y7	35.8	69.8
2152	IPI00221636.1	33502	NHFTVAQAEAFDK	493.2413	3	44	y6	49.6	93.6
2153	IPI00221636.1	33502	NHFTVAQAEAFDK	739.3643	2	49	y8	73.4	122.4
2154	IPI00221636.1	33502	NISFQIMK	490.7659	2	24	y6	65.2	89.2
2155	IPI00221636.1	33502	SFFSSK	702.3536	1	28	y4	57.1	85.1
2156	IPI00221636.1	33502	SFFSSK	351.6766	2	28	y4	25.4	53.4
2157	IPI00221636.1	33502	TPWIEFENNYR	734.8457	2	41	y7	22.4	63.4
2158	IPI00221636.1	33502	VIYLIR	388.7552	2	30	y4	57.1	87.1
2159	IPI00224740.3	15119	DRSSFFVNGLTLGGQK	575.9696	3	19	y6	46.8	65.8
2160	IPI00224740.3	15119	DRSSFFVNGLTLGGQK	576.3034	3	31	y6	46.8	77.8
2161	IPI00224740.3	15119	DRSSFFVNGLTLGGQK	863.4480	2	73	y9	12.2	85.2
2162	IPI00224740.3	15119	DSPSVWAAVPGK	607.3163	2	34	c b9 P	12.2	46.2
2163	IPI00224740.3	15119	EGVHGGLINKK	576.3301	2	29		0.0	29.0
2164	IPI00224740.3	15119	SSFFVNGLTLGGQK	728.3861	2	32	y6	25.4	57.4
2165	IPI00224740.3	15119	SSFFVNGLTLGGQK	728.3862	2	42		0.0	42.0
2166	IPI00224740.3	15119	TFVSITPAEVBVLVVK	808.9673	2	35	c b6 P	13.7	48.7
2167	IPI00224740.3	15119	TFVSITPAEVBVLVVK	808.9673	2	43	P y10	93.7	136.7
2168	IPI00224740.3	15119	TFVSITPAEVBVLVVK	808.9673	2	44	P y10	61.2	105.2
2169	IPI00224740.3	15119	TLVLLMGK	437.7749	2	35	y6	82.7	117.7
2170	IPI00115212.1	20920	AGEYSVTYDGFNTFTIPK	1005.9834	2	43	c b6	16.9	59.9

2171	IPI00115212.1	20920	AGEYSVTYDGFNTFTIPK	1005.9834	2	46		0.0	46.0
2172	IPI00115212.1	20920	DGETFQLMGLYGREPDLSSDIK	824.7314	3	37	y++15	16.8	53.8
2173	IPI00115212.1	20920	DGETFQLMGLYGREPDLSSDIK	824.7313	3	44	y++16	31.7	75.7
2174	IPI00115212.1	20920	ENIIDLSNANR	629.8231	2	56	y5	25.4	81.4
2175	IPI00115212.1	20920	IEDNGNFR	482.7284	2	34	y6	41.0	75.0
2176	IPI00115212.1	20920	LFLEQIHVLENSLVLK	632.7057	3	23		0.0	23.0
2177	IPI00115212.1	20920	TDYDNFLMAHLINEK	912.9369	2	42	y6	89.0	131.0
2178	IPI00115212.1	20920	TDYDNFLMAHLINEK	912.4339	2	60	y8	90.2	150.2
2179	IPI00128556.1	31852	AAEAGADLVMLDNFKPEELHPTAATLK	951.8214	3	59	P y7	33.8	92.8
2180	IPI00128556.1	31852	DNHVVAAGSMER	429.2033	3	27	y5	7.1	34.1
2181	IPI00128556.1	31852	DNHVVAAGSMER	643.3015	2	40	y7	14.6	54.6
2182	IPI00128556.1	31852	GPAHLLLLGER	400.5600	3	37	y4	15.6	52.6
2183	IPI00128556.1	31852	GPAHLLLLGER	600.3368	2	50	y7	90.2	140.2
2184	IPI00128556.1	31852	LFAEGDTPVPHAR	470.5777	3	21	P y4	41.0	62.0
2185	IPI00128556.1	31852	QAAGFSLK	411.2293	2	26		0.0	26.0
2186	IPI00128556.1	31852	VALNTLAR	429.2643	2	63	y5	38.2	101.2
2187	IPI00226430.1	42260	AANEAGYFNEEMAPIEVK	992.4610	2	55	y6	69.8	124.8
2188	IPI00226430.1	42260	AANEAGYFNEEMAPIEVK	992.4618	2	57	y6	53.0	110.0
2189	IPI00226430.1	42260	DMDLIDVNEAFAPQFLSVQK	1141.0666	2	70	P y8	58.1	128.1
2190	IPI00129517.1	22226	ATDLLLDDSLVSLFGNR	925.4901	2	41	y5	7.1	48.1
2191	IPI00129517.1	22226	ATDLLLDDSLVSLFGNR	924.9870	2	47	y4	15.6	62.6
2192	IPI00129517.1	22226	ATDLLLDDSLVSLFGNRR	1003.0392	2	25		0.0	25.0
2193	IPI00129517.1	22226	ATDLLLDDSLVSLFGNRR	669.0344	3	32	b6	29.5	61.5
2194	IPI00129517.1	22226	ATDLLLDDSLVSLFGNRR	669.3632	3	43	b6	25.4	68.4
2195	IPI00129517.1	22226	LLADPTGAFGK	545.3006	2	35	P y7	82.7	117.7
2196	IPI00129517.1	22226	RFSMVIDNGIVK	460.2551	3	34	c b5	15.6	49.6
2197	IPI00129517.1	22226	THLPGFVEQAGALK	734.4061	2	39		0.0	39.0
2198	IPI00129517.1	22226	THLPGFVEQAGALK	489.9371	3	44	y7	42.2	86.2
2199	IPI00129517.1	22226	VNLAELFK	467.2740	2	43	y6	97.9	140.9
2200	IPI00169670.1	38003	VLWTPQVLTNGVQFFR	953.5249	2	58	c b4 P	16.9	74.9
2201	IPI00169670.1	38003	VLWTPQVLTNGVQFFR	954.0160	2	70		0.0	70.0
2202	IPI00169670.1	38003	VLWTPQVLTNGVQFFR	953.5247	2	73	y8	12.2	85.2
2203	IPI00169670.1	38003	VSPDGEQYGPSELK	738.8545	2	40	P y5	57.1	97.1
2204	IPI00230682.4	28183	AVTEQGHELSNEER	799.8802	2	71	y6	38.2	109.2
2205	IPI00230682.4	28183	EMQPThPIR	554.7819	2	24	y4	44.5	68.5
2206	IPI00230682.4	28183	TAFDEAIAELDTLNEESYK	1080.5090	2	58	c b9	2.0	60.0
2207	IPI00230682.4	28183	YLSEVASGENK	598.7947	2	45	y9	52.8	97.8
2208	IPI00132076.1	29705	AVYQGGSSPVK	595.3141	2	36	y8	55.3	91.3
2209	IPI00132076.1	29705	AVYQGGSSPVKS	638.8302	2	56	y9	42.2	98.2
2210	IPI00132076.1	29705	EWAMNVDGAK	560.7582	2	33	y6	95.7	128.7
2211	IPI00132076.1	29705	GQIMDAVIR	501.7744	2	42	y7	33.8	75.8

2212	IPI00132076.1	29705	GTVLLADNVIVPGTPDFLAYVR	1166.1400	2	49	P y8	12.9	61.9
2213	IPI00132076.1	29705	GTVLLADNVIVPGTPDFLAYVR	1166.1401	2	50	P y8	5.4	55.4
2214	IPI00132076.1	29705	LLTMEINPDYAAITQQMLDFAGLQDK	980.8240	3	41	y6	25.4	66.4
2215	IPI00381856.1	58285	FNGTVK	333.1844	2	23	y5	44.5	67.5
2216	IPI00381856.1	58285	RVIISAPSADAPMFVMGVNHKK	790.4308	3	48		0.0	48.0
2217	IPI00381856.1	58285	TNSGSREGLEAK	625.3111	2	17		0.0	17.0
2218	IPI00317902.1	28684	LLANMVYQYK	621.8362	2	72	y5	75.6	147.6
2219	IPI00317902.1	28684	RGPGLYVDSEGNR	528.2588	3	19	y6	16.9	35.9
2220	IPI00317902.1	28684	VSSDNVADLHDK	650.3123	2	80	y4	44.5	124.5
2221	IPI00120457.1	40898	ELGHPEIGDAIAR	459.9089	3	16		0.0	16.0
2222	IPI00120457.1	40898	ELGHPEIGDAIAR	689.3594	2	25	P y9	52.8	77.8
2223	IPI00120457.1	40898	EVLEYNALGGK	596.8143	2	49	y7	77.6	126.6
2224	IPI00120457.1	40898	GLTVVQAFQELVEPK	829.9644	2	35	y4	15.6	50.6
2225	IPI00120457.1	40898	GLTVVQAFQELVEPK	829.4610	2	50	y4	15.6	65.6
2226	IPI00120457.1	40898	LDAYNQEK	490.7382	2	31	y6	53.0	84.0
2227	IPI00120457.1	40898	PGIGLDAINDALLLEASIYR	1058.0777	2	102	c b9	11.6	113.6
2228	IPI00120457.1	40898	QILEENYGQK	611.3095	2	29	y6	65.2	94.2
2229	IPI00120457.1	40898	QILEENYGQKDPEK	564.2815	3	21		0.0	21.0
2230	IPI00124223.1	28826	IVVLLQR	420.7869	2	26	y5	27.2	53.2
2231	IPI00124223.1	28826	LEGFHTQISK	580.3093	2	30	y8	32.0	62.0
2232	IPI00124223.1	28826	NAYAVLYDIILK	698.4070	2	75	y6	82.7	157.7
2233	IPI00222430.3	9994	AKWDSWNK	345.5064	3	21	y++7	18.5	39.5
2234	IPI00222430.3	9994	AKWDSWNK	517.7566	2	25	y6	65.2	90.2
2235	IPI00222430.3	9994	QATVGDVNTDRPGLLDLK	638.3455	3	17	y++11	21.2	38.2
2236	IPI00222430.3	9994	QATVGDVNTDRPGLLDLK	638.3433	3	20		0.0	20.0
2237	IPI00222430.3	9994	QATVGDVNTDRPGLLDLK	638.0125	3	27		0.0	27.0
2238	IPI00222430.3	9994	QATVGDVNTDRPGLLDLK	638.0081	3	32		0.0	32.0
2239	IPI00222430.3	9994	QATVGDVNTDRPGLLDLK	957.0133	2	37	y++14	4.7	41.7
2240	IPI00222430.3	9994	TQPTDEEMLIYSHFK	993.9675	2	37		0.0	37.0
2241	IPI00222430.3	9994	TQPTDEEMLIYSHFK	993.9678	2	58	y7	46.8	104.8
2242	IPI00222430.3	9994	TQPTDEEMLIYSHFK	993.4746	2	83	y5	38.2	121.2
2243	IPI00222430.3	9994	VDELKK	366.2189	2	27	y4	57.1	84.1
2244	IPI00129164.1	28310	ALAPQLAR	420.2587	2	17	P y5	82.7	99.7
2245	IPI00129164.1	28310	DMLYQVLAAEEPSVR	861.4332	2	37	P y4	44.5	81.5
2246	IPI00129164.1	28310	DMLYQVLAAEEPSVR	574.2907	3	42	P y4	57.1	99.1
2247	IPI00129164.1	28310	DMLYQVLAAEEPSVR	860.9339	2	42	P y4	29.5	71.5
2248	IPI00129164.1	28310	LLSPGSVMLVSAR	665.3826	2	72	c b10	23.8	95.8
2249	IPI00129164.1	28310	VLSYAPGPLDNDMQQQLAR	994.9981	2	40	y8	22.4	62.4
2250	IPI00129164.1	28310	VLSYAPGPLDNDMQQQLAR	994.9981	2	51	c b5 P	41.0	92.0
2251	IPI00315452.4	33772	EAQIFDYNEIPNFPQSTVQGHAGR	907.1028	3	51	P y++11	5.6	56.6
2252	IPI00315452.4	33772	EAQIFDYNEIPNFPQSTVQGHAGR	907.1028	3	60	y++15	58.9	118.9

2253	IPI00315452.4	33772	LVFGLLNGR	494.8011	2	55	y7	49.6	104.6
2254	IPI00315452.4	33772	VFGFSLITNK	563.3188	2	67	y8	73.4	140.4
2255	IPI00330685.4	41895	APHLTHLR	315.5192	3	17	y4	9.6	26.6
2256	IPI00330685.4	41895	APHLTHLR	472.7750	2	27		0.0	27.0
2257	IPI00330685.4	41895	EIVPVLVSSR	549.8293	2	22	P y7	33.8	55.8
2258	IPI00330685.4	41895	HGSNLEAMGK	522.2504	2	45	y8	32.0	77.0
2259	IPI00330685.4	41895	ILVTLLHTLER	436.6064	3	27		0.0	27.0
2260	IPI00330685.4	41895	IVSWSQAGVEPSVMGVGPIPAIK	1162.1324	2	47	P y4	41.0	88.0
2261	IPI00330685.4	41895	KWQVSR	402.2301	2	26	y5	38.2	64.2
2262	IPI00330685.4	41895	LKPYPFLDGTGTVTANATGMNDGAAAVVLMK	1077.2174	3	57	y9	32.0	89.0
2263	IPI00330685.4	41895	TAIGSFNGALSTVPVHEMGTTVIK	811.0977	3	20	y7	6.2	26.2
2264	IPI00330685.4	41895	VAVLSQNR	443.7593	2	41	y4	15.6	56.6
2265	IPI00330685.4	41895	VAVLSQNRAEHAQK	517.6186	3	17	y++11	22.4	39.4
2266	IPI00124372.1	54449	ERKDEIATVETINNGK	606.3178	3	45	y7	23.8	68.8
2267	IPI00124372.1	54449	EVNLAVENAK	543.7933	2	44	y6	14.6	58.6
2268	IPI00124372.1	54449	GGARVEPVDASGTEK	491.5832	3	33	y7	35.8	68.8
2269	IPI00124372.1	54449	GVKPITLLEGGK	404.5836	3	44		0.0	44.0
2270	IPI00124372.1	54449	IMEMSAK	405.1985	2	25	y5	53.0	78.0
2271	IPI00124372.1	54449	ISFTGSVPTGVK	596.8332	2	33		0.0	33.0
2272	IPI00124372.1	54449	LGDPLEEDTR	564.7990	2	80	P y7	22.4	102.4
2273	IPI00124372.1	54449	MGPLINAPHLER	449.9116	3	31	c b5	8.5	39.5
2274	IPI00124372.1	54449	STGTFVVSQPLNYR	806.4143	2	30	y++11	11.6	41.6
2275	IPI00128378.1	62246	AGNLKPGDTIIPTSGNTGIGLALAAAVK	917.5098	3	43	y11	26.5	69.5
2276	IPI00128378.1	62246	AGNLKPGDTIIPTSGNTGIGLALAAAVK	917.5096	3	46	y9	32.0	78.0
2277	IPI00128378.1	62246	AGNLKPGDTIIPTSGNTGIGLALAAAVK	917.5100	3	47	y11	25.5	72.5
2278	IPI00128378.1	62246	GFDQAPVVNESGAILGMVTLGNMLSSLLAGK	1030.8719	3	34	b8	6.6	40.6
2279	IPI00128378.1	62246	GFDQAPVVNESGAILGMVTLGNMLSSLLAGK	1030.8715	3	34	b5 P	25.4	59.4
2280	IPI00128378.1	62246	GFDQAPVVNESGAILGMVTLGNMLSSLLAGK	1030.8715	3	38	b5 P	7.7	45.7
2281	IPI00128378.1	62246	IIGVDPEGSILAPEELNQTEQTAYEVEGIGYDFIPTVLDR	1131.5493	4	17	P y6	41.0	58.0
2282	IPI00128378.1	62246	SNDEDSFAFAR	629.7702	2	61	y4	15.6	76.6
2283	IPI00111315.1	11369	SAGTSLVNFSSLMNLEEK	1038.0097	2	69	y5	62.3	131.3
2284	IPI00111315.1	11369	SAGTSLVNFSSLMNLEEK	1038.0103	2	74	y6	13.7	87.7
2285	IPI00111315.1	11369	THEQLTPLVR	597.3364	2	36	y8	21.2	57.2
2286	IPI00111315.1	11369	TSEIQSQVK	510.2722	2	43	y7	35.8	78.8
2287	IPI00125658.3	73323	EGVFPGLIPILNSYLENMEVDVDTR	941.1451	3	24	b8 P	5.4	29.4
2288	IPI00125658.3	73323	EGVFPGLIPILNSYLENMEVDVDTR	941.1450	3	37	b8 P	12.2	49.2
2289	IPI00125658.3	73323	EGVFPGLIPILNSYLENMEVDVDTR	941.1453	3	40	b8 P	5.4	45.4
2290	IPI00125658.3	73323	GLLSQGSPLSWEETQR	894.9502	2	39	y5	25.4	64.4
2291	IPI00125658.3	73323	LDFLIPLSK	523.3183	2	44	y5	69.8	113.8
2292	IPI00125658.3	73323	VQLLLNGGDVLETLQEK	935.0202	2	70	y5	44.5	114.5
2293	IPI00125658.3	73323	VVINVPFK	514.8289	2	25	y6	38.2	63.2

2294	IPI00228253.1	41728	AGHFDK	337.6665	2	39	c b5	49.1	88.1
2295	IPI00228253.1	41728	IDEFPR	388.7004	2	29	y5	29.5	58.5
2296	IPI00228253.1	41728	MNAGSDPVVIVSAAR	764.8932	2	47		0.0	47.0
2297	IPI00125515.1	33330	ESVQVPDDQDFR	717.8338	2	19	P y7	46.8	65.8
2298	IPI00125515.1	33330	NRDVITLR	493.7906	2	47	y6	14.6	61.6
2299	IPI00125515.1	33330	PAASTEPQGSRPALGR	532.2811	3	36	y++13	42.2	78.2
2300	IPI00125515.1	33330	SSQFLAPK	439.2427	2	34	c b6	1.1	35.1
2301	IPI00125515.1	33330	SWLPMGADYIIMNYSVK	663.6603	3	46	y7	49.6	95.6
2302	IPI00125515.1	33330	SWLPMGADYIIMNYSVK	994.4877	2	55	y6	46.8	101.8
2303	IPI00125515.1	33330	SWLPMGADYIIMNYSVK	994.9858	2	56	y6	49.6	105.6
2304	IPI00331556.3	94820	SNLAYDIVQLPTGLTGIK	952.5303	2	61		0.0	61.0
2305	IPI00331556.3	94820	SNLAYDIVQLPTGLTGIK	952.5300	2	62	P y8	69.8	131.8
2306	IPI00331556.3	94820	TRFQESEERP	469.5725	3	35	c b5	53.0	88.0
2307	IPI00331556.3	94820	TSTVDLPIESQLLWQLDREMLGLYTENEGK	1160.5932	3	25	b6 P	0.7	25.7
2308	IPI00331556.3	94820	TSTVDLPIESQLLWQLDREMLGLYTENEGK	1160.5936	3	27	y6	7.1	34.1
2309	IPI00331556.3	94820	TSTVDLPIESQLLWQLDREMLGLYTENEGK	1160.5937	3	56		0.0	56.0
2310	IPI00226993.3	12010	EAFQEALAAAGDK	660.8297	2	84	y5	57.1	141.1
2311	IPI00226993.3	12010	EAFQEALAAAGDK	660.8296	2	89	y6	53.0	142.0
2312	IPI00318577.1	57202	ALGKDDFTK	497.7646	2	32	y7	61.4	93.4
2313	IPI00318577.1	57202	FVAVTSTNAAK	554.8038	2	38	y9	66.6	104.6
2314	IPI00318577.1	57202	GSSLIEAFETWR	698.3509	2	51		0.0	51.0
2315	IPI00318577.1	57202	IFNLYPK	447.7583	2	41	y6	69.8	110.8
2316	IPI00318577.1	57202	IPNGVNGVEDR	585.2993	2	65	y6	25.4	90.4
2317	IPI00318577.1	57202	MDENRFVAVTSTNAAK	585.6235	3	20	y7	38.2	58.2
2318	IPI00318577.1	57202	RAGNVVYGEPIAAGLGTDGR	658.3472	3	45	y5	14.6	59.6
2319	IPI00318577.1	57202	RAPYKGEVTTLK	454.9298	3	33	c b4	25.4	58.4
2320	IPI00310240.1	76294	DAYERDLESIDIIGDTSGHFQK	799.7063	3	26		0.0	26.0
2321	IPI00310240.1	76294	DAYERDLESIDIIGDTSGHFQK	799.7060	3	37	y9	52.8	89.8
2322	IPI00310240.1	76294	ESILELITSR	580.8300	2	44	y4	6.6	50.6
2323	IPI00310240.1	76294	GSVHDFPEFDANQDAEALYTAMK	852.7157	3	38	y7	46.8	84.8
2324	IPI00310240.1	76294	GSVHDFPEFDANQDAEALYTAMK	853.0505	3	49		0.0	49.0
2325	IPI00310240.1	76294	TLIEILATR	515.3236	2	27	y7	46.8	73.8
2326	IPI00310240.1	76294	WGTDEAQFIYILGNR	891.9465	2	55	y6	5.9	60.9
2327	IPI00111876.2	22551	FSSETWQNLGTLQR	833.9145	2	68	y5	18.5	86.5
2328	IPI00111876.2	22551	GLLDFLQGLA	1046.5906	1	43	b9	11.0	54.0
2329	IPI00111876.2	22551	TPALIVYGDQDPMGSSSFQHLK	798.0622	3	42	b5	7.1	49.1
2330	IPI00131204.1	57115	AMSQDGASQFQEVILQELELSVKK	893.7965	3	27	b5	29.5	56.5
2331	IPI00131204.1	57115	GGTLTQYEGK	527.2649	2	45	y6	53.0	98.0
2332	IPI00131204.1	57115	IFNTNNLWISLGAVK	845.9714	2	99	y6	49.6	148.6
2333	IPI00131204.1	57115	ILTAAASHEFEHTKK	571.6374	3	18		0.0	18.0
2334	IPI00131204.1	57115	IQRPPEDSIQPYEK	567.2934	3	43		0.0	43.0

2335	IPI00131204.1	57115	IYTFNQSR	514.7616	2	31	y5	36.1	67.1
2336	IPI00131204.1	57115	NENTFLDLTVQQIEHLNK	719.7084	3	19		0.0	19.0
2337	IPI00120864.1	32225	AAIGDTLVQDIR	636.3546	2	41	y++10	49.6	90.6
2338	IPI00120864.1	32225	AEDGIVLDFPVYPTFPQDFHEVEDLIK	1045.5149	3	35	b7	6.6	41.6
2339	IPI00120864.1	32225	AEDGIVLDFPVYPTFPQDFHEVEDLIK	1045.5178	3	35	b8	32.0	67.0
2340	IPI00120864.1	32225	GLILTVK	372.2550	2	23	y5	69.8	92.8
2341	IPI00120864.1	32225	RAEDGIVLDFPVYPTFPQDFHEVEDLIK	1097.5589	3	42	b9	30.4	72.4
2342	IPI00120864.1	32225	TLEEDAHQQIAR	470.9041	3	29		0.0	29.0
2343	IPI00120864.1	32225	TLEEDAHQQIAR	705.8526	2	80	y6	53.0	133.0
2344	IPI00120864.1	32225	VNTEPLPAIEK	605.8371	2	24	c b4 P	16.9	40.9
2345	IPI00134131.2	59715	HSVNNNTYSQFQDEYSLEEV MK	850.3822	3	39	y7	33.8	72.8
2346	IPI00134131.2	59715	HSVNNNTYSQFQDEYSLEEV MK	850.3823	3	47	y7	33.8	80.8
2347	IPI00134131.2	59715	KLEEEGEQFVK	668.3417	2	49	y6	53.0	102.0
2348	IPI00134131.2	59715	LQNLQLQPGK	569.8334	2	47	c b7 P	49.6	96.6
2349	IPI00134131.2	59715	MNPQSAFFQ GK	627.8058	2	24	y7	35.8	59.8
2350	IPI00134131.2	59715	RQVPGAK	378.2301	2	30	c b6	25.4	55.4
2351	IPI00134131.2	59715	WVINPSGGLISK	635.8617	2	25	y10	61.2	86.2
2352	IPI00134131.2	59715	YGLSAHPITPQMFGYAGK	646.6601	3	23	c b9 P	5.0	28.0
2353	IPI00126194.1	167091	AINYLISGYQR	649.3544	2	58	y4	57.1	115.1
2354	IPI00126194.1	167091	APFALQVNTLPLNFDK	894.9888	2	52	P y6	69.8	121.8
2355	IPI00126194.1	167091	LLTDQAVDK	501.7765	2	45	y7	82.7	127.7
2356	IPI00126194.1	167091	QQNSDGGLLLTQDTVVALQALSK	802.0691	3	23	y8	73.4	96.4
2357	IPI00126194.1	167091	SVIVEPEGIEK	600.3302	2	30	P y6	61.4	91.4
2358	IPI00126194.1	167091	TFHVNSG NR	516.2553	2	18	y6	25.4	43.4
2359	IPI00126194.1	167091	TVQGAFFGVPVYK	707.3837	2	42	P y4	75.6	117.6
2360	IPI00126194.1	167091	VNTNYRPLPFGSQVLLVDEK	783.0879	3	26		0.0	26.0
2361	IPI00126194.1	167091	VNTNYRPLPFGSQVLLVDEK	783.0882	3	28		0.0	28.0
2362	IPI00319992.1	72492	RALSSQH QAR	385.2113	3	48	y4	15.6	63.6
2363	IPI00319992.1	72492	VEIANDQGNR	614.8182	2	58	y7	35.8	93.8
2364	IPI00132655.1	25782	EGLLTLGAK	515.3012	2	54	y6	46.8	100.8
2365	IPI00132655.1	25782	MTDSFTEQADQVTADV GK	972.4400	2	67	y6	53.0	120.0
2366	IPI00132655.1	25782	QSMWTSTISSHLATK	559.9477	3	16	y7	33.8	49.8
2367	IPI00132655.1	25782	RPNSGSLIQVTTD GKTELTPAYF	865.7883	3	22	P y4	29.5	51.5
2368	IPI00132655.1	25782	RVLVYGGR	460.2771	2	50	y6	13.7	63.7
2369	IPI00132655.1	25782	VLVYGGR	382.2267	2	33	y4	41.0	74.0
2370	IPI00331490.5	41028	ALQTTYGTNAPR	646.8335	2	58	y6	38.2	96.2
2371	IPI00331490.5	41028	FYAYNPLAGLLTGK	793.4254	2	47	P y10	48.5	95.5
2372	IPI00331490.5	41028	RMDASASAASVR	611.3045	2	57	y9	29.0	86.0
2373	IPI00331490.5	41028	VDLFY LHAPDHSTPVEETLR	585.5525	4	21		0.0	21.0
2374	IPI00331490.5	41028	WMYHHSQ LQGTR	772.3738	2	43	y8	44.3	87.3
2375	IPI00271562.2	40842	SLK PDSIR	458.2667	2	18	P y5	38.2	56.2

2376	IPI00314467.3	23235	PYTLMSMVANLLYEK	886.9523	2	87	y4	83.9	170.9
2377	IPI00407543.1	21532	EILVGDVGTVDPPYTTFFVK	1099.0588	2	95	P y7	65.2	160.2
2378	IPI00407543.1	21532	ESKKEDLVFIFWAPENAPLK	788.0876	3	30	P y7	77.6	107.6
2379	IPI00407543.1	21532	MIYASSK	400.2047	2	18	y5	53.0	71.0
2380	IPI00407543.1	21532	YALYDATYETK	669.3250	2	46	y8	73.4	119.4
2381	IPI00127942.1	18852	HEYQANGPEDLNR	514.9028	3	49		0.0	49.0
2382	IPI00127942.1	18852	HEYQANGPEDLNR	771.8532	2	61	c b7 P	1.4	62.4
2383	IPI00127942.1	18852	HFVGMLEPK	529.2787	2	27	y8	44.3	71.3
2384	IPI00127942.1	18852	YALYDASFETK	654.3172	2	53	y7	49.6	102.6
2385	gij547749	59711	ELTTEIDNNIEQISSYK	998.9934	2	63	y7	44.3	107.3
2386	gij547749	59711	SLLEGE GSSGGGGR	631.8023	2	67	y10	27.7	94.7
2387	gij547749	59711	VTMQNLNDR	545.7694	2	48	y7	23.8	71.8
2388	IPI00222515.1	47749	EQSILELGSLLAK	700.9069	2	46	y6	41.0	87.0
2389	IPI00222515.1	47749	IMLNTPEDVQALVSGK	857.9546	2	88	c b5 P	41.0	129.0
2390	IPI00222515.1	47749	LYDNLLEQNLIR	752.4115	2	48	y7	33.8	81.8
2391	IPI00331146.3	26125	IVPVEITISLLK	662.9268	2	37		0.0	37.0
2392	IPI00331146.3	26125	IVPVEITISLLK	662.9249	2	43	y4	41.0	84.0
2393	IPI00331146.3	26125	NPDSQY GELIEK	696.8443	2	68	y6	53.0	121.0
2394	IPI00331146.3	26125	RIQTYLESTKPIIDL YEEMGK	843.4431	3	26	b6	20.6	46.6
2395	IPI00331146.3	26125	RIQTYLESTKPIIDL YEEMGK	843.1074	3	34	b6	6.6	40.6
2396	IPI00344912.1	46871	KLSVSQVVHK	375.5648	3	33	y4	16.9	49.9
2397	IPI00344912.1	46871	KLSVSQVVHK	562.8426	2	42	y8	30.4	72.4
2398	IPI00344912.1	46871	MQQVEASLQPETLRK	586.6455	3	28	P y6	5.9	33.9
2399	IPI00344912.1	46871	MQQVEASLQPETLRK	879.9645	2	53	P y6	38.2	91.2
2400	IPI00344912.1	46871	NIVFSPLSISAALALVSLGAK	691.4100	3	21	y5	53.0	74.0
2401	IPI00344912.1	46871	NIVFSPLSISAALALVSLGAK	691.4099	3	22	y5	89.0	111.0
2402	IPI00344912.1	46871	TLFSSQIEELNLPK	809.9367	2	40	y7	23.8	63.8
2403	IPI00344912.1	46871	TLFSSQIEELNLPK	809.9367	2	62	y7	32.0	94.0
2404	IPI00408961.1	33053	DLGTQLAPIIQEFFHSEQYR	798.4030	3	19	b6	7.1	26.1
2405	IPI00408961.1	33053	IMFVGGPNTRK	407.2256	3	17	y7	0.2	17.2
2406	IPI00408961.1	33053	IMFVGGPNTRK	610.3350	2	25	y9	11.6	36.6
2407	IPI00408961.1	33053	LMHQEQLK	342.8516	3	18		0.0	18.0
2408	IPI00114628.1	30068	DYLTTYYSFHS GPVAEQEIVK	816.3975	3	40	y6	13.7	53.7
2409	IPI00114628.1	30068	DYLTTYYSFHS GPVAEQEIVK	816.7326	3	47	y6	35.8	82.8
2410	IPI00114628.1	30068	EIIVTDYTPQNLQELQK	1017.0364	2	43	y++14	10.1	53.1
2411	IPI00114628.1	30068	EIIVTDYTPQNLQELQK	1017.0364	2	45	c b8 P	5.6	50.6
2412	IPI00114628.1	30068	FQH YMVGP K	553.7765	2	28	y7	108.8	136.8
2413	IPI00114628.1	30068	FSGVYLEK	471.7505	2	28	y6	57.1	85.1
2414	IPI00114628.1	30068	KFSGVYLEK	535.7985	2	33	y7	33.8	66.8
2415	IPI00114628.1	30068	LAGLLKPGGHLVTLVTLR	465.2968	4	18		0.0	18.0
2416	IPI00114628.1	30068	VYIGGEDY EK	586.7768	2	29	y7	65.2	94.2

2417	IPI00116498.1	27925	FLIPNASQPESK	665.8574	2	42	P y9	81.7	123.7
2418	IPI00116498.1	27925	GIVDQSQQAYQEAFEISKK	724.0311	3	21		0.0	21.0
2419	IPI00116498.1	27925	SVTEQGAELSNEER	774.8674	2	59	y5	15.6	74.6
2420	IPI00116498.1	27925	VVSSIEQK	445.2534	2	22	y6	53.0	75.0
2421	IPI00116498.1	27925	YLAEVAAGDDKK	640.3297	2	48	y8	73.4	121.4
2422	IPI00126184.4	56740	FSSSTFEQVNLVK	807.4123	2	68	y7	5.9	73.9
2423	IPI00126184.4	56740	FSSSTFEQVNLVK	807.4120	2	87	y8	21.2	108.2
2424	IPI00116279.1	60042	AFADALEVIPMALSENSGMNPIQTMTEVR	1046.5118	3	24	b9 P	19.2	43.2
2425	IPI00116279.1	60042	MMVDKDGDTVITNDGATILSMMDVDHQIAK	817.1374	4	21		0.0	21.0
2426	IPI00116279.1	60042	SQDDEIGDGTGTVVLAGALLEEAQQLDR	1038.8571	3	39	y6	1.3	40.3
2427	IPI00116279.1	60042	VLVDINNPEPLIQTAK	882.4999	2	76	P y9	52.8	128.8
2428	IPI00350785.3	36132	VIHNNFGIVEGLMTTVHAITATQK	871.4569	3	22	c b8	1.8	23.8
2429	IPI00350785.3	36132	VIHNNFGIVEGLMTTVHAITATQK	649.6027	4	33		0.0	33.0
2430	IPI00350785.3	36132	VIHNNFGIVEGLMTTVHAITATQK	866.1255	3	38	y9	44.3	82.3
2431	IPI00350785.3	36132	VIHNNFGIVEGLMTTVHAITATQK	649.5972	4	38	y++11	61.4	99.4
2432	IPI00350785.3	36132	YDNSLK	739.3638	1	20	y4	62.3	82.3
2433	IPI00313296.1	51495	DISSAVQANPALTELSLR	943.5071	2	54	P y9	29.0	83.0
2434	IPI00313296.1	51495	DISSAVQANPALTELSLR	943.5071	2	56	P y9	61.2	117.2
2435	IPI00313296.1	51495	DISSAVQANPALTELSLR	943.0060	2	78	P y9	29.0	107.0
2436	IPI00118892.4	70732	FSLVGIAGQDLNEG NR	845.4306	2	75	y5	27.2	102.2
2437	IPI00118892.4	70732	MINLSVPTIDER	752.3803	2	30	P y7	61.4	91.4
2438	IPI00118892.4	70732	VNDDIIVNWVNTTLK	872.9683	2	60	y5	53.0	113.0
2439	IPI00331644.3	28700	AVENSSTAIGIR	609.3281	2	71	c b9	5.2	76.2
2440	IPI00331644.3	28700	DGVVFGVEK	475.2536	2	27	y6	82.7	109.7
2441	IPI00331644.3	28700	GRHEIVPK	312.5191	3	36	c b5	23.4	59.4
2442	IPI00331644.3	28700	IYIVHDEVK	410.2359	3	23		0.0	23.0
2443	IPI00331644.3	28700	RLFNVDR	460.2590	2	27	c b6	23.8	50.8
2444	IPI00331644.3	28700	SLADIAREEASNFR	790.3971	2	27	y5	27.2	54.2
2445	IPI00331644.3	28700	SLADIAREEASNFR	526.9348	3	31	y++9	25.4	56.4
2446	IPI00331644.3	28700	SLADIAREEASNFR	789.8973	2	45	y7	23.8	68.8
2447	IPI00331644.3	28700	SNFGYNIPLK	576.8069	2	46	y7	69.8	115.8
2448	IPI00130530.1	35706	LLDAAGANLR	507.2909	2	74	y5	27.2	101.2
2449	IPI00130530.1	35706	LSDRVNKK	480.7771	2	34	c b6	41.0	75.0
2450	IPI00130530.1	35706	TRNTMSLLAANNLLAGLRGEAMPSELKL	747.4064	4	19	y++13	6.2	25.2
2451	IPI00130530.1	35706	VFVTGPLPAEGR	621.8459	2	37	P y7	13.7	50.7
2452	IPI00109142.1	35569	AFSGYLGPDSEK	635.8010	2	55	y7	22.4	77.4
2453	IPI00109142.1	35569	KIPVVFR	429.7820	2	24	P y5	97.9	121.9
2454	IPI00109142.1	35569	LQEGYDHSYYFIATFIADHIR	854.0829	3	29	y6	25.4	54.4
2455	IPI00109142.1	35569	LQEGYDHSYYFIATFIADHIR	854.0828	3	32	y8	33.8	65.8
2456	IPI00109142.1	35569	MYSYVTEELPQLINANFPVDPQR	909.1169	3	19	P y6	14.6	33.6
2457	IPI00109142.1	35569	MYSYVTEELPQLINANFPVDPQR	909.1169	3	30	y4	20.6	50.6

2458	IPI00109142.1	35569	MYSYVTEELPQLINANFPVDPQR	909.1166	3	40		0.0	40.0
2459	IPI00109142.1	35569	SGYQQAASEHGLVVIAPDTSPR	762.0508	3	16	P y6	23.8	39.8
2460	IPI00109142.1	35569	VFEHSSVELK	587.8090	2	38	c b8	22.4	60.4
2461	IPI00128518.1	44051	ELLEVVNK	472.2771	2	39		0.0	39.0
2462	IPI00128518.1	44051	FVIGGPQGDAVGTGRK	520.2831	3	31	y++12	22.4	53.4
2463	IPI00128518.1	44051	HIGYDDSAK	503.2358	2	33	y7	49.6	82.6
2464	IPI00128518.1	44051	IADLRR	372.2298	2	26		0.0	26.0
2465	IPI00128518.1	44051	IIVDTYGGWGAHGGGAFSGK	650.6629	3	32	y++17	75.5	107.5
2466	IPI00128518.1	44051	KPIYQK	388.7369	2	28	P y5	27.2	55.2
2467	IPI00128518.1	44051	NFDLRPGVIVR	643.3762	2	20		0.0	20.0
2468	IPI00128518.1	44051	SEFPWEVPK	559.7843	2	31	P y6	89.0	120.0
2469	IPI00128518.1	44051	SGVLPWLRPDSK	677.8767	2	31	y5	25.4	56.4
2470	IPI00128518.1	44051	TERELLEVVNK	665.3774	2	30	c b7	5.9	35.9
2471	IPI00128518.1	44051	TQVTVQYMQDNGAVIPVR	1010.5232	2	52	y5	13.7	65.7
2472	IPI00128518.1	44051	YLDEDTVYHLQPSGR	598.2890	3	34	y++11	58.1	92.1
2473	IPI00128518.1	44051	YLDEDTVYHLQPSGR	598.6233	3	35	P y4	16.9	51.9
2474	IPI00129096.1	30437	ELDSNPFASLVFYWEPLNR	1149.5692	2	46	y5	8.5	54.5
2475	IPI00129096.1	30437	ELDSNPFASLVFYWEPLNR	1149.5697	2	49		0.0	49.0
2476	IPI00129096.1	30437	KNEELGQLYQDQEVPKPEYWGGYILYPQVMEFWQGQTN	1191.5784	4	26	y5	6.2	32.2
2477	IPI00129096.1	30437	SSQIGAVVSR	502.2803	2	63	y6	89.0	152.0
2478	IPI00123223.1	166460	AVDQSVLLKPESELSPSWIYNLPGMQQNK	1129.2562	3	43	P y7	46.8	89.8
2479	IPI00123223.1	166460	DGSYSFAGDQNGEREGNTWLTAFLK	955.1192	3	45	y7	22.4	67.4
2480	IPI00123223.1	166460	MLRPLNELLPLAYIEDPKK	564.3239	4	23	b7	5.9	28.9
2481	IPI00123223.1	166460	NLFDELVLDK	603.3254	2	46	y8	90.2	136.2
2482	IPI00123223.1	166460	SSGSLFNAMK	578.2766	2	44	y6	22.4	66.4
2483	IPI00123223.1	166460	YMLVPSQLYTETPEK	949.9861	2	36	c b4	20.6	56.6
2484	IPI00109122.1	28020	ALLEVVQSGGK	550.8196	2	65	y8	46.8	111.8
2485	IPI00109122.1	28020	LTVEDPVTVEYITR	817.9353	2	76	y5	25.4	101.4
2486	IPI00307837.3	51065	EVSTYIK	420.2290	2	23	y5	44.5	67.5
2487	IPI00307837.3	51065	EVSTYIKK	484.2766	2	23		0.0	23.0
2488	IPI00307837.3	51065	IGGIGTVPVGR	513.3093	2	53	P y4	57.1	110.1
2489	IPI00307837.3	51065	KLEDGPK	393.7218	2	16	y6	29.5	45.5
2490	IPI00307837.3	51065	MDSTEPPYSQK	641.7854	2	33	P y6	69.8	102.8
2491	IPI00307837.3	51065	QTVAVGVK	457.7875	2	23		0.0	23.0
2492	IPI00307837.3	51065	RYEEIVK	468.7615	2	26	b5	38.2	64.2
2493	IPI00307837.3	51065	STTTGHLYK	560.8038	2	42	y6	57.1	99.1
2494	IPI00307837.3	51065	VETGVLKPGMVVTFAPVNVTEVK	839.4698	3	17	b7 P	23.8	40.8
2495	IPI00307837.3	51065	YYVTIIDAPGHR	702.8708	2	57	y7	46.8	103.8
2496	IPI00408378.1	29720	TAFDEAIAELDTLNEDSYK	1073.4983	2	72	y6	69.8	141.8
2497	IPI00408378.1	29720	TAFDEAIAELDTLNEDSYKDSTLIMQLLR	1106.2123	3	29	y++16	31.7	60.7
2498	IPI00115850.1	26615	AELGIPLEEVDLNEMDYLTR	1161.0765	2	45	y7	15.6	60.6

2499	IPI00115850.1	26615	AFSVFLFNTENK	708.8627	2	66	y6	49.6	115.6
2500	IPI00115850.1	26615	NVTLNPDNEIK	677.3560	2	54	P y7	61.4	115.4
2501	IPI00118344.1	55482	IFDANTKPNLNLQVLSNPEFLAEGTAIK	1020.2124	3	57		0.0	57.0
2502	IPI00118344.1	55482	VLIGGETPEGQK	671.8475	2	44	P y5	53.0	97.0
2503	IPI00118344.1	55482	VTVVDVNEAR	551.2984	2	62	y6	25.4	87.4
2504	IPI00314225.2	68619	QEAFLNPAIGPEGLSGSSR	1015.5273	2	72	y10	27.7	99.7
2505	IPI00314225.2	68619	VIPTALLSLLLR	654.9353	2	61		0.0	61.0
2506	IPI00340989.2	33744	ENIQVFELPSEDMK	977.9597	2	46	P y6	41.0	87.0
2507	IPI00340989.2	33744	ENIQVFELPSEDMK	978.4589	2	50	P y6	53.0	103.0
2508	IPI00340989.2	33744	HIDTAYVYQTENHVQAIR	739.3683	3	50	y++16	32.9	82.9
2509	IPI00340989.2	33744	ILNKPGLK	441.7925	2	30	P y4	83.9	113.9
2510	IPI00340989.2	33744	RSPAQIALR	506.3064	2	20	c b8	12.2	32.2
2511	IPI00340989.2	33744	SIGVSNFNRSR	540.7753	2	40	y6	53.0	93.0
2512	IPI00133066.1	53261	LQEVITLLSLEK	757.9459	2	68	y5	32.3	100.3
2513	IPI00133066.1	53261	SRVVEHNIR	370.5442	3	30	c b5	25.4	55.4
2514	IPI00116055.1	25588	DGNLMFDQVPMVEIDGMK	1020.4691	2	32	y6	49.6	81.6
2515	IPI00121514.2	66313	AMADPEVQQIMSDPAMR	945.9347	2	55	P y4	44.5	99.5
2516	IPI00121514.2	66313	DPQALSEHLK	569.2990	2	34	y7	33.8	67.8
2517	IPI00121514.2	66313	FMNPFNLPNLYQK	813.4119	2	40	P y6	53.0	93.0
2518	IPI00121514.2	66313	HEANNLQK	533.7855	2	39	y7	33.8	72.8
2519	IPI00121514.2	66313	LAYINPDLALEEK	744.9001	2	30	P y8	42.2	72.2
2520	IPI00121514.2	66313	RTYEEGLK	498.2621	2	28	b5	27.2	55.2
2521	IPI00121514.2	66313	SLAEHR	356.6907	2	22	y4	27.2	49.2
2522	IPI00131459.1	17311	DRPFFTGLVK	590.3296	2	21		0.0	21.0
2523	IPI00131459.1	17311	EISLWFQPEELVEYK	955.9833	2	25	c b7 P	38.2	63.2
2524	IPI00131459.1	17311	EISLWFQPEELVEYK	955.9836	2	33		0.0	33.0
2525	IPI00131459.1	17311	FLQASEDLLK	582.3195	2	41	y7	77.6	118.6
2526	IPI00131459.1	17311	YMHSGPVVAMVWEGLNVVK	706.3634	3	19	y8	40.2	59.2
2527	IPI00131459.1	17311	YMHSGPVVAMVWEGLNVVK	706.3634	3	25	y6	53.0	78.0
2528	IPI00133206.1	49690	AMEVDERPTEQYSDIGGLDK	752.0169	3	26		0.0	26.0
2529	IPI00133206.1	49690	LAGPQLVQMFIDGAK	822.9426	2	41	y5	38.2	79.2
2530	IPI00133206.1	49690	MATVWDEAEQDGIGEEVLK	1061.0003	2	47	y++17	14.9	61.9
2531	IPI00133206.1	49690	QTYFLPVIGLVDAEK	846.9654	2	37	y7	22.4	59.4
2532	IPI00133206.1	49690	QTYFLPVIGLVDAEK	846.9653	2	49		0.0	49.0
2533	IPI00129528.1	36860	ENPSANYTTMMK	693.8069	2	44	y7	73.4	117.4
2534	IPI00129528.1	36860	RVPFMELIIPGITNGVEMLNNMPSPR	976.5128	3	26	y5	49.6	75.6
2535	IPI00129528.1	36860	RVPFMELIIPGITNGVEMLNNMPSPR	976.5125	3	34	y5	18.5	52.5
2536	IPI00129528.1	36860	RVPFMELIIPGITNGVEMLNNMPSPR	976.1781	3	38	y5	25.4	63.4
2537	IPI00129528.1	36860	SGTTWVSEILDLIYNGDAEK	1163.5722	2	63	y8	66.6	129.6
2538	IPI00122657.1	37608	ENFQIFDFSLTEEMKDIDALNK	926.4398	3	17		0.0	17.0
2539	IPI00122657.1	37608	ENFQIFDFSLTEEMKDIDALNK	926.7734	3	18		0.0	18.0

2540	IPI00122657.1	37608	LDYIDLIIELPMAFKPGK	747.0746	3	20		0.0	20.0
2541	IPI00122657.1	37608	LWNTEHVSPMVLPALER	664.6837	3	29	P y5	69.8	98.8
2542	IPI00122657.1	37608	MNLSAAHHQISLSDGNNIPLIGLGTYS DPRPVPVK	928.9791	4	36	P y7	23.8	59.8
2543	IPI00122657.1	37608	MNLSAAHHQISLSDGNNIPLIGLGTYS DPRPVPVK	929.2300	4	38		0.0	38.0
2544	IPI00122657.1	37608	QLELILNKPGK	683.4336	2	30	y7	33.8	63.8
2545	IPI00122657.1	37608	TQAQIVLR	464.7822	2	42	y6	38.2	80.2
2546	IPI00126048.1	43124	ETIEDVEEMLNNLPGVTSVHSR	824.0722	3	77	P y9	20.1	97.1
2547	IPI00126048.1	43124	QMTDPNVALTFLEK	803.9092	2	42	y7	22.4	64.4
2548	IPI00126048.1	43124	VLDLQKIK	478.7925	2	38	y6	65.2	103.2
2549	IPI00126048.1	43124	VNPLSLVEIILHVVR	567.6857	3	24		0.0	24.0
2550	IPI00137331.4	51875	GAVPYVQAFDSSLANPVAEYLK	1183.6311	2	82	c b9	5.2	87.2
2551	IPI00137331.4	51875	HAEMVHTGLK	561.7904	2	43	y8	73.4	116.4
2552	IPI00137331.4	51875	SSEMNVLIPTEGGDFNEFPVPEQFK	938.1129	3	18		0.0	18.0
2553	IPI00137331.4	51875	SSEMNVLIPTEGGDFNEFPVPEQFK	938.4444	3	24	b8 P	12.2	36.2
2554	IPI00379621.1	24004	HTGPGILSMANAGPNTNGSQLFICTAK	920.7748	3	20		0.0	20.0
2555	IPI00379621.1	24004	HVVFGK	343.7027	2	31	y5	44.5	75.5
2556	IPI00379621.1	24004	SIYGKFEFENFILK	916.9601	2	45	y7	89.0	134.0
2557	IPI00318970.5	26109	AANGVVLATEK	536.8040	2	44	y6	89.0	133.0
2558	IPI00318970.5	26109	RYNEDLELEDIAHTAILTLK	590.3148	4	22	b5	15.6	37.6
2559	IPI00318970.5	26109	RYNEDLELEDIAHTAILTLK	786.7501	3	41	c b7	41.0	82.0
2560	IPI00318970.5	26109	RYNEDLELEDIAHTAILTLK	786.7501	3	45	y8	46.8	91.8
2561	IPI00318970.5	26109	SILYDER	448.2302	2	20	y5	38.2	58.2
2562	IPI00314191.3	30907	ALRDFLLK	488.3036	2	22	b6	25.4	47.4
2563	IPI00314191.3	30907	GVHAEEGWPNSAYGVTK	601.2900	3	17	c b8 P	44.3	61.3
2564	IPI00314191.3	30907	LQAEGLSPR	485.7689	2	36	y7	22.4	58.4
2565	IPI00314191.3	30907	SPEEGAETPVYLLALLPPDAEGPHGQFVQDK	1064.8558	3	56		0.0	56.0
2566	IPI00314191.3	30907	SSSRPVALVTGANK	714.8989	2	50		0.0	50.0
2567	IPI00322312.1	23450	AEEYEFLTPMEEAPK	892.4091	2	45	P y7	82.7	127.7
2568	IPI00322312.1	23450	VAVSADPNVNVIVTR	825.9616	2	68	P y7	22.4	90.4
2569	IPI00117264.1	20236	APLVLKD	378.2371	2	27	y4	32.3	59.3
2570	IPI00117264.1	20236	DGLILTSR	437.7530	2	24	y4	27.2	51.2
2571	IPI00117264.1	20236	GAEEMETVIPVDVMR	838.4049	2	47	P y6	53.0	100.0
2572	IPI00117264.1	20236	MMNGSHYSYSESER	516.8783	3	28	y++10	49.6	77.6
2573	IPI00117264.1	20236	RALVILAK	442.3078	2	29	c b7	13.7	42.7
2574	IPI00117264.1	20236	TQGPYDVVVLPGGNLGAQNLSESPMVK	924.4735	3	24	b9	21.2	45.2
2575	IPI00117264.1	20236	TQGPYDVVVLPGGNLGAQNLSESPMVK	924.4776	3	42	b9	32.0	74.0
2576	IPI00117264.1	20236	VTTHPLAK	433.7586	2	37		0.0	37.0
2577	IPI00331442.1	26200	GVYSTQVGFAGGHTR	512.9235	3	16	y++12	12.2	28.2
2578	IPI00331442.1	26200	QGNDFGTQYR	593.2682	2	45	y5	29.5	74.5
2579	IPI00331442.1	26200	SAVYPTSAVQMEALR	847.4347	2	68	y8	11.6	79.6
2580	IPI00331442.1	26200	TGHAEVVR	434.7355	2	37	y4	27.2	64.2

2581	IPI00395139.1	37539	ENEMRENLQVFEFQLSPEDMK	872.0698	3	24	P y5	75.6	99.6
2582	IPI00395139.1	37539	GIVPLAQSFK	530.3141	2	21	P y7	111.9	132.9
2583	IPI00395139.1	37539	RSPALIALR	498.8194	2	43	c b8	32.0	75.0
2584	IPI00395139.1	37539	SIGVSNFNHR	565.7885	2	51	y6	14.6	65.6
2585	IPI00395139.1	37539	TLDGLNK	380.7138	2	17	y5	6.6	23.6
2586	IPI00320217.3	57783	FWQDLMNIAGTTLSSK	906.4545	2	57	y7	49.6	106.6
2587	IPI00320217.3	57783	ILIANTGMDTDK	646.3368	2	58	y8	58.1	116.1
2588	IPI00346501.2	33846	WGEAGAEYVVESTGVFTTMEK	1146.0278	2	75	y6	14.6	89.6
2589	IPI00224784.1	18804	RVAEDEDDEDDVDTKK	583.9308	3	93	c b6	33.8	126.8
2590	IPI00129512.3	29211	FQIATVTEK	518.7881	2	24	c b7	5.4	29.4
2591	IPI00129512.3	29211	QPVLSQTEAR	564.8046	2	32	y6	35.8	67.8
2592	IPI00129512.3	29211	QVLGQMVIDEELLGDGHSYSPR	815.4021	3	32	y9	29.0	61.0
2593	IPI00129512.3	29211	VNDSTMLGASGDYADFQYLK	1098.5028	2	71	y7	35.8	106.8
2594	IPI00269031.1	55318	IEQIEAGTPGR	585.8101	2	60	y5	25.4	85.4
2595	IPI00269031.1	55318	VLVLDVFTPTPLGTR	814.4757	2	56	P y7	22.4	78.4
2596	IPI00345821.2	87426	VKAMLWTMNNAEIAQLMSLIINTFYXNKEIFLR	684.1871	6	20		0.0	20.0
2597	IPI00345821.2	87426	YIDQEELNK	576.2834	2	35	y7	82.7	117.7
2598	IPI00270326.1	53289	ESDTGLAPPALWDLAADK	935.4655	2	25	c b7 P	6.2	31.2
2599	IPI00270326.1	53289	ESDTGLAPPALWDLAADK	935.4653	2	39	c b7 P	46.8	85.8
2600	IPI00270326.1	53289	KINELTGK	508.3112	2	28	y7	44.3	72.3
2601	IPI00270326.1	53289	TMLELINQLDGFDP	881.4478	2	43	y5	9.6	52.6
2602	IPI00270326.1	53289	TMLELINQLDGFDP	881.4481	2	66	y6	15.6	81.6
2603	IPI00127560.1	15880	GSPAVDVAVK	471.7668	2	26	y5	69.8	95.8
2604	IPI00127560.1	15880	TLGISPFHEFADVFTANDSGHR	840.0776	3	30	y6	27.2	57.2
2605	IPI00127560.1	15880	TLGISPFHEFADVFTANDSGHR	840.0775	3	34	y8	20.1	54.1
2606	IPI00110986.1	16696	DGNGYISAAELR	633.8056	2	32	y7	22.4	54.4
2607	IPI00110986.1	16696	DGNGYISAAELR	633.3101	2	66	y6	15.6	81.6
2608	IPI00110986.1	16696	DTDSEEEIREAFR	798.8593	2	31	y++8	15.6	46.6
2609	IPI00110986.1	16696	EAFSLFDK	478.7398	2	35		0.0	35.0
2610	IPI00110986.1	16696	MKDTDSEEEIREAFR	619.2885	3	20		0.0	20.0
2611	IPI00116643.2	42770	EVVQGIDADR	562.2975	2	35	y4	29.5	64.5
2612	IPI00116643.2	42770	MIGLEDLIDDNYSK	813.3891	2	76	y7	49.6	125.6
2613	IPI00323592.1	36030	VAVLGASGGIGQPLSLLK	897.5527	2	42	y9	38.5	80.5
2614	IPI00323592.1	36030	VAVLGASGGIGQPLSLLK	897.5526	2	66	y9	18.3	84.3
2615	IPI00110658.1	15307	IGGHGAEYGAEALER	765.3789	2	48	y7	25.4	73.4
2616	IPI00110658.1	15307	IGGHGAEYGAEALER	510.5832	3	49	y4	41.0	90.0
2617	IPI00110658.1	15307	KVADALANAAGHLDDLPGALSALSDDLHAHK	599.3194	5	16		0.0	16.0
2618	IPI00110658.1	15307	LRVDPVNFK	363.2133	3	33	c b5	25.4	58.4
2619	IPI00110658.1	15307	MFASFPTTK	515.2577	2	26	y7	23.8	49.8
2620	IPI00110658.1	15307	TYFPHFDVSHGSAQVK	607.6320	3	23	y++9	0.9	23.9
2621	IPI00110658.1	15307	TYFPHFDVSHGSAQVK	607.2986	3	30	c b7	38.2	68.2

2622	IPI00110658.1	15307	VADALANAAGHLDDLPGALSALSDDLHAHK	573.7013	5	19		0.0	19.0
2623	IPI00119004.1	28412	DVEEAKPELSLLGDDY	925.4376	2	49	c b5	27.2	76.2
2624	IPI00119004.1	28412	DVEEAKPELSLLGDDY	925.4414	2	60		0.0	60.0
2625	IPI00118677.1	60867	SLLVIPNTLAVNAAQDSTDLVAK	1177.6537	2	46	c b4	11.2	57.2
2626	IPI00118677.1	60867	SLLVIPNTLAVNAAQDSTDLVAK	1177.6535	2	67		0.0	67.0
2627	IPI00283862.4	29813	FVFDRPLPVSR	444.9188	3	18	P y4	44.5	62.5
2628	IPI00283862.4	29813	RAQSELAHQK	413.5587	3	51	c b5	25.4	76.4
2629	IPI00283862.4	29813	RAQSELAHQKK	456.2565	3	45	c b5	15.6	60.6
2630	IPI00283862.4	29813	THAVLVALK	476.3030	2	37	y7	77.6	114.6
2631	IPI00283862.4	29813	TQIPTQR	422.2379	2	23	P y4	15.6	38.6
2632	IPI00314439.3	60775	AIRDGVIASINHEK	551.2977	3	43	c b6	44.5	87.5
2633	IPI00314439.3	60775	LQLDSPEDAEIFIVAK	837.9326	2	58	b4	49.1	107.1
2634	IPI00113996.4	26891	DSSRLPSEGPQPAHVVGDVDR	551.5377	4	16		0.0	16.0
2635	IPI00113996.4	26891	HDLGHFMLR	375.8590	3	36		0.0	36.0
2636	IPI00113996.4	26891	IAIFGATGR	453.2643	2	52	y6	21.2	73.2
2637	IPI00113996.4	26891	LQDVTDDHIR	606.3043	2	54	y8	44.3	98.3
2638	IPI00315299.3	20817	NLNQALLDLHALGSAR	569.3166	3	37	b4	18.5	55.5
2639	IPI00119239.1	25637	LAAIQESGVER	586.8181	2	71	y6	23.8	94.8
2640	IPI00119239.1	25637	QVLLGDQIPK	555.8297	2	42		0.0	42.0
2641	IPI00119239.1	25637	SGSAADTQAVADAVTYQLGFHSIELNEPPLVHTAASLFK	1015.2668	4	15	P y++12	58.1	73.1
2642	IPI00331680.5	33842	GNSMQEALR	503.2432	2	43	y7	12.9	55.9
2643	IPI00331680.5	33842	HLGFQSAVEALR	443.2423	3	40	y4	27.2	67.2
2644	IPI00331680.5	33842	TIILYDTNLPDVS AK	831.9514	2	54	P y6	82.7	136.7
2645	IPI00109482.1	31760	AGLGHPSAFGR	556.2853	2	43	P y6	14.6	57.6
2646	IPI00109482.1	31760	ATHAVVR	377.2222	2	20	y4	15.6	35.6
2647	IPI00109482.1	31760	GAEILADTFK	532.7858	2	54	y6	38.2	92.2
2648	IPI00109482.1	31760	GHVLLHR	416.2514	2	43	y4	27.2	70.2
2649	IPI00113128.1	30172	IAIDAGFR	431.7427	2	43	y5	57.1	100.1
2650	IPI00310658.3	37604	ENEMRENQVFGFQLSPEDMK	848.0628	3	26	P y5	41.0	67.0
2651	IPI00310658.3	37604	KLQLDYVDLYIMHYPVPMK	789.7495	3	26	y++11	42.2	68.2
2652	IPI00310658.3	37604	KLQLDYVDLYIMHYPVPMK	789.7468	3	27	c b8	21.2	48.2
2653	IPI00128376.1	37621	IAIDTGFR	446.7480	2	30		0.0	30.0
2654	IPI00128376.1	37621	NAQLDYVDLYIIHFPMALQP GDK	888.1175	3	27		0.0	27.0
2655	IPI00128376.1	37621	QLETILNKPGLK	451.9416	3	23		0.0	23.0
2656	IPI00128376.1	37621	QLETILNKPGLK	677.4144	2	34	y7	23.8	57.8
2657	IPI00128376.1	37621	SIGVSNFNFR	570.7935	2	39	y6	1.4	40.4
2658	IPI00128376.1	37621	VLDGLHR	405.2352	2	36	y5	41.0	77.0
2659	IPI00124225.1	27268	ALVHERDEAAYGALR	557.6249	3	28	y4	16.9	44.9
2660	IPI00124225.1	27268	TKVEAFQTTISK	676.8755	2	57	y8	44.3	101.3
2661	IPI00131845.1	27811	AINQGGLT SVAVR	643.3665	2	80	y9	11.0	91.0
2662	IPI00131845.1	27811	LLDSSTVTHL FK	454.2538	3	16		0.0	16.0

2663	IPI00131845.1	27811	QTESTSFLEK	585.2872	2	18	y5	75.6	93.6
2664	IPI00133706.1	22344	EFADSLGVPFLETSK	855.9340	2	53	P y8	73.4	126.4
2665	IPI00133706.1	22344	LQIWDTAGQER	658.8359	2	45	y5	29.5	74.5
2666	sp P15636	79085	VFTSWTGGGAAASR	684.3400	2	79	y8	22.4	101.4
2667	IPI00115866.1	29168	HVEPGNAAIQEK	646.8335	2	50	P y9	81.7	131.7
2668	IPI00115866.1	29168	TVQQHAGETDPVTTMR	590.9531	3	35	y4	29.5	64.5
2669	IPI00317309.3	35787	ADAEVLRK	451.2593	2	38		0.0	38.0
2670	IPI00317309.3	35787	FITIFGTR	477.7739	2	22	y6	13.7	35.7
2671	IPI00317309.3	35787	SELTKFEK	519.7780	2	15	y7	46.8	61.8
2672	IPI00317309.3	35787	SVSHLR	349.7008	2	18	y4	41.0	59.0
2673	IPI00317309.3	35787	TPEELSAIK	494.2724	2	49	y7	90.2	139.2
2674	IPI00317309.3	35787	VLTEIIASR	501.3038	2	49	y7	46.8	95.8
2675	IPI00317309.3	35787	YMTISGFQIETIDRETSNLEQLLLAVVK	1133.9259	3	16		0.0	16.0
2676	IPI00323911.3	25547	AILSZYAAK	475.2894	2	49	y6	65.2	114.2
2677	IPI00323911.3	25547	DGHLLFGQVPLVEIDGMMLTQTR	857.7761	3	36	y4	29.5	65.5
2678	IPI00131548.1	30201	LMAVPNLSMLETVDSVK	923.9908	2	41		0.0	41.0
2679	IPI00131548.1	30201	TFGENYVQELLEK	785.3944	2	57	y6	38.2	95.2
2680	IPI00108189.2	13882	AQVAQPGGDTIFGK	694.8618	2	64	P y9	85.6	149.6
2681	IPI00108189.2	13882	KHISQISVADDDDESLLGHLMIVGKK	570.7044	5	39	y++9	15.6	54.6
2682	IPI00331394.1	52744	EVAGQVGVPLQDLMVR	855.9619	2	46	P y8	90.2	136.2
2683	IPI00331394.1	52744	NINENFGVPNTEIHLVPILATAVQEELEK	1045.2132	3	34	y7	22.4	56.4
2684	IPI00331394.1	52744	NINENFGVPNTEIHLVPILATAVQEELEK	1045.2136	3	42	P y++13	48.5	90.5
2685	IPI00136483.1	30214	DGIVLGADTR	508.7721	2	50	y7	12.9	62.9
2686	IPI00136483.1	30214	FRPDMEEEEAK	690.8133	2	40	c b4	7.1	47.1
2687	IPI00136483.1	30214	GTTAVLTEK	460.2587	2	47	c b6	15.6	62.6
2688	IPI00154045.1	55905	ALELEQELR	550.8013	2	37	y7	49.6	86.6
2689	IPI00154045.1	55905	ANIGDAQAMGQRPITFFR	665.0128	3	51		0.0	51.0
2690	IPI00154045.1	55905	LLVAGEGR	407.7428	2	35	y6	35.8	70.8
2691	IPI00154045.1	55905	LRHFHAK	303.5120	3	16		0.0	16.0
2692	IPI00352095.3	50174	IGYNPDTVAFVPIGWNGDNMLKPSANMPWFK	1190.2358	3	35	b8	5.6	40.6
2693	IPI00352095.3	50174	IGYNPDTVAFVPIGWNGDNMLKPSANMPWFK	1190.2362	3	39		0.0	39.0
2694	IPI00131407.1	26565	LNATNIELATVQPQGNFHMFTK	825.7548	3	51	y++13	27.7	78.7
2695	IPI00131407.1	26565	SSLILK	387.2603	2	45	y4	57.1	102.1
2696	IPI00123750.1	41260	GNFGDNSGLAEYVAQAIDPSLSWDDITWLRR	1156.5624	3	73	y++14	15.5	88.5
2697	IPI00230042.3	21649	IMQEFESDTFFPEIDLK	1074.0075	2	37	P y7	102.5	139.5
2698	IPI00230042.3	21649	LLPEYPGVLSEVQEEK	915.4801	2	59	c b5 P	53.0	112.0
2699	IPI00124692.1	37534	IHLDEK	377.7084	2	23	y4	41.0	64.0
2700	IPI00124692.1	37534	LIELYK	389.7392	2	26	y5	57.1	83.1
2701	IPI00124692.1	37534	LLGELLK	393.2603	2	28	y6	53.0	81.0
2702	IPI00124692.1	37534	LSDGIRK	394.7350	2	29	y4	15.6	44.6
2703	IPI00124692.1	37534	MESALDQLK	517.7632	2	43	y5	38.2	81.2

2704	IPI00124692.1	37534	SYEPQEDPGVK	624.7907	2	39	P y8	90.2	129.2
2705	IPI00124692.1	37534	VSTEVDAR	438.7245	2	40		0.0	40.0
2706	IPI00124692.1	37534	WLHNEDQMAVEK	500.5698	3	32	y5	62.3	94.3
2707	IPI00337957.3	99448	ALLELQLEPEELYQTFQR	1111.0814	2	46	b7	13.7	59.7
2708	IPI00337957.3	99448	GEGQLSAAER	509.2520	2	58	y5	14.6	72.6
2709	IPI00337957.3	99448	WLPAGDALLQMITIHLPSVTAQK	867.8147	3	18	P y8	22.4	40.4
2710	IPI00120914.1	38090	IQDALSTVLQYAEDVLSGK	1026.0443	2	71	y8	77.6	148.6
2711	IPI00119945.1	30825	ESSIYLIGGSIPPEEDAGK	932.9637	2	70	P y7	102.5	172.5
2712	IPI00119945.1	30825	RADLYTVESK	591.3126	2	29	b7	35.8	64.8
2713	IPI00312058.3	60083	ASQRPDVLTGGGNPIGDK	628.3289	3	25	y9	33.8	58.8
2714	IPI00312058.3	60083	EAETFPNPFDLTK	828.9023	2	18	c b5 P	69.8	87.8
2715	IPI00312058.3	60083	NAIHTYTQAGSHMAAK	567.9453	3	37	y++12	27.7	64.7
2716	IPI00312058.3	60083	NAIHTYTQAGSHMAAK	567.6113	3	44		0.0	44.0
2717	IPI00312058.3	60083	NPVNYFAEVEQMAFDPSNMPPGIEPSPDK	1074.8268	3	30	y6	49.1	79.1
2718	IPI00312058.3	60083	RTPIAVR	406.7590	2	19	c b5	7.1	26.1
2719	IPI00312058.3	60083	VLNEEERK	508.7731	2	26		0.0	26.0
2720	IPI00121348.1	34970	ALGVNTVGAQTLK	636.3695	2	55	y6	25.4	80.4
2721	IPI00121348.1	34970	LFYEHPIFSEVISDQEAVSALEK	884.7835	3	23	y5	29.5	52.5
2722	IPI00121348.1	34970	LFYEHPIFSEVISDQEAVSALEK	884.7803	3	28	y5	41.0	69.0
2723	IPI00121348.1	34970	LGIPATIVVPNTTPALTIER	1039.1070	2	33	y8	22.4	55.4
2724	IPI00121348.1	34970	NNPGWVYISPFDDPLIWEGHTSLVK	962.4828	3	18		0.0	18.0
2725	IPI00121348.1	34970	NNPGWVYISPFDDPLIWEGHTSLVK	962.4830	3	19	b6	1.6	20.6
2726	IPI00230427.3	12667	ASVPEGFLSELTQQLAQATGK	1088.5703	2	49	c b7	1.6	50.6
2727	IPI00230427.3	12667	ASVPEGFLSELTQQLAQATGK	1088.5702	2	51	y6	46.8	97.8
2728	IPI00230427.3	12667	LHISPDR	419.2329	2	23		0.0	23.0
2729	IPI00133551.2	16311	FHVPLLLSPWSYTTYR	660.6846	3	48	c b8 P	13.7	61.7
2730	IPI00133551.2	16311	TSYTNLDGR	513.7459	2	48	y7	33.8	81.8
2731	IPI00132194.1	34318	GAEADQIIEYLK	675.3522	2	67	c b8	12.9	79.9
2732	IPI00123449.1	17253	DVQLSGPGGSVQDQAPDLYTYFTMLK	920.7804	3	41	y4	32.3	73.3
2733	IPI00123449.1	17253	DVQLSGPGGSVQDQAPDLYTYFTMLK	920.7801	3	45	y5	20.6	65.6
2734	IPI00117914.1	34957	GPAALRK	356.7270	2	30	y4	7.1	37.1
2735	IPI00117914.1	34957	TGLLSGLDIMEVNPTLGK	929.5026	2	29	y6	35.8	64.8
2736	IPI00117914.1	34957	TGLLSGLDIMEVNPTLGK	930.0085	2	54	y9	52.8	106.8
2737	IPI00117910.1	21936	EGGLGPLNIPLLDVTK	853.9867	2	39		0.0	39.0
2738	IPI00117910.1	21936	QITVNDLPVGR	606.3402	2	41		0.0	41.0
2739	IPI00117910.1	21936	SLSQNYGVLK	554.8039	2	35	y8	44.3	79.3
2740	IPI00380214.1	34151	VEIVAINDPFIDLNYMVXMFQYDSTHGK	1108.5299	3	26		0.0	26.0
2741	IPI00230139.3	51939	RGEAHLAVNDFDLAR	561.9584	3	40		0.0	40.0
2742	IPI00230139.3	51939	VLQLYPSNK	531.3029	2	47	P y4	57.1	104.1
2743	IPI00228491.1	58799	FLGPDGSLLLDLLQLAEPPPK	788.4340	3	36	P y4	27.2	63.2
2744	IPI00228491.1	58799	TAGAQQMPWLESVPIAVSNNIDESELMR	1078.8590	3	52	y7	33.8	85.8

2745	IPI00130353.1	141439	SILYVSPHPDAFPSLR	920.9817	2	63	y6	14.6	77.6
2746	IPI00330302.2	80167	ASLQVLGTVGEPINPEAWLWYHR	879.7945	3	37	b10	5.0	42.0
2747	IPI00330302.2	80167	ASLQVLGTVGEPINPEAWLWYHR	879.7945	3	37	b6	0.9	37.9
2748	IPI00330302.2	80167	IGPIATPDYIQNAPGLPK	933.5133	2	34	P y5	57.1	91.1
2749	IPI00226835.1	47951	SSMPDLPGAMDEPYDTR	941.4037	2	63	y6	38.2	101.2
2750	IPI00230044.1	29231	IQVLQQQADDAEERAER	667.0010	3	45		0.0	45.0
2751	IPI00230044.1	29231	LATALQK	372.7348	2	24	y5	44.5	68.5
2752	IPI00230044.1	29231	MLDQTLDDLNEM	718.3487	2	40	y5	25.4	65.4
2753	IPI00378963.1	29989	SVEAAAELSAK	538.2853	2	62	y9	66.6	128.6
2754	IPI00407451.1	63297	GVLLGIDDLQTNQFK	830.9474	2	61	y6	6.2	67.2
2755	IPI00266614.1	26328	GFAFDIPGFYDSGFLK	890.9346	2	33	c b6 P	6.6	39.6
2756	IPI00225670.1	83971	DLVQDPSLLGGTISAYK	888.9726	2	58	y8	21.2	79.2
2757	IPI00127691.1	52442	EGGGNNLYGEEMVQALEQLK	1090.5259	2	57	y7	25.4	82.4
2758	IPI00266909.4	103951	KPEAQLPAVYPFAAVMYQNELFNLQK	1004.1917	3	39	y6	75.6	114.6
2759	IPI00266909.4	103951	KPEAQLPAVYPFAAVMYQNELFNLQK	1004.1919	3	41	y4	16.9	57.9
2760	IPI00124181.1	48212	NEVSFVIHNLPIIAK	847.4870	2	57	P y5	89.0	146.0
2761	IPI00133428.1	49325	AVANQTSATFLR	639.8451	2	54		0.0	54.0
2762	IPI00133428.1	49325	KYEPPVPTR	543.8007	2	27	P y6	49.6	76.6
2763	IPI00121962.1	81575	TNNFNVELTK	590.3042	2	38	y8	32.0	70.0
2764	IPI00121962.1	81575	TTADEWGENYFLIGPYFEHNMK	888.4034	3	25		0.0	25.0
2765	IPI00121962.1	81575	TTADEWGENYFLIGPYFEHNMK	888.4030	3	32	b6	6.6	38.6
2766	IPI00121962.1	81575	YYQHAR	419.2040	2	27	y4	27.2	54.2
2767	IPI00121517.1	39535	ILQEAGADISK	572.8140	2	48	y6	69.8	117.8
2768	IPI00121517.1	39535	TVMSHLDR	479.7427	2	20	y5	62.3	82.3
2769	IPI00112555.3	82624	KSEMESVLAQLDNYGQQELADLFVNYNVK	1116.5525	3	56	y7	49.6	105.6
2770	IPI00318841.1	50371	RILGLLDTHLK	426.9350	3	46	c b5	29.5	75.5
2771	IPI00318841.1	50371	YSNEDTLSVALPYFWEHFDK	821.3830	3	30		0.0	30.0
2772	IPI00133605.1	62612	TGVLQGGPESEVEIVK	821.4394	2	55	y7	25.4	80.4
2773	IPI00130950.1	45448	QGFIDLPEFPFGLEPR	931.4790	2	55	P y7	61.4	116.4
2774	IPI00277001.3	30141	VEIATLTR	451.7696	2	53	y6	25.4	78.4
2775	IPI00118324.2	9544	ESTLHLVLR	534.3142	2	25		0.0	25.0
2776	IPI00118324.2	9544	LIFAGK	324.7079	2	22	y5	53.0	75.0
2777	IPI00118324.2	9544	LIFAGK	648.4086	1	25		0.0	25.0
2778	IPI00118324.2	9544	MQIFVK	383.2198	2	33	y5	38.2	71.2
2779	IPI00118324.2	9544	MQIFVK	765.4387	1	34	y4	32.3	66.3
2780	IPI00118324.2	9544	TLSDYNIQK	541.2805	2	27	y7	77.6	104.6
2781	IPI00109823.2	81850	ENNNVNYDWIHWAPEDPYK	802.3608	3	19	P y6	53.0	72.0
2782	IPI00109823.2	81850	EWAPGAEGVFLTGFEFGWNPFSHPYK	971.1239	3	19		0.0	19.0
2783	IPI00109823.2	81850	EWAPGAEGVFLTGFEFGWNPFSHPYK	971.1239	3	20		0.0	20.0
2784	IPI00109823.2	81850	GIQLHK	348.2135	2	25	y4	36.1	61.1
2785	IPI00109823.2	81850	GYESFGIHR	533.2593	2	35	y6	14.6	49.6

2786	IPI00109823.2	81850	HFTSNVLPR	535.7916	2	32	y7	61.4	93.4
2787	IPI00109823.2	81850	IVLDSDAAEYGGHQR	544.2651	3	21	y++14	34.1	55.1
2788	IPI00128564.1	40906	SVMGALASQATK	582.3091	2	52	y5	53.0	105.0
2789	IPI00132951.2	84215	ETLLEMFK	505.7648	2	45		0.0	45.0
2790	IPI00132951.2	84215	KRPVIVHR	335.5542	3	19		0.0	19.0
2791	IPI00132951.2	84215	MDGEKPVDASEEK	478.8856	3	22		0.0	22.0
2792	IPI00132951.2	84215	QLENSLNEFGEKWELNPGDGAFYGP	980.8005	3	19	y9	22.4	41.4
2793	IPI00132951.2	84215	QLENSLNEFGEKWELNPGDGAFYGP	980.8013	3	31	y7	35.8	66.8
2794	IPI00226805.1	107713	IVAVTGAEAQK	543.8114	2	48	y7	77.6	125.6
2795	IPI00226805.1	107713	LVSVLQNK	450.7800	2	28	y6	25.4	53.4
2796	IPI00226805.1	107713	MALELLTQEFGIPVER	923.9925	2	20	P y4	41.0	61.0
2797	IPI00226805.1	107713	MALELLTQEFGIPVER	923.9928	2	33	P y4	41.0	74.0
2798	IPI00135640.1	45768	TMLELLNQLDGFATK	912.4684	2	51	y7	95.7	146.7
2799	IPI00110528.1	32191	ARREEDGIVLDFPVYPTFPQDFHEVEDLIK	894.7029	4	20	b6	16.9	36.9
2800	IPI00110528.1	32191	ARREEDGIVLDFPVYPTFPQDFHEVEDLIK	894.7024	4	37	b6	1.3	38.3
2801	IPI00110528.1	32191	VNTEPLPAIEK	605.8371	2	20	P y7	49.6	69.6
2802	IPI00115871.1	46335	LAHAVHER	311.5071	3	24		0.0	24.0
2803	IPI00115871.1	46335	LAHAVHER	466.7573	2	49	y5	41.0	90.0
2804	IPI00308885.2	61201	TLNDELEIIEGMK	752.8814	2	49	y5	44.5	93.5
2805	IPI00129928.2	54564	MPIPVIQAFGILK	713.9282	2	49	y7	15.6	64.6
2806	IPI00129928.2	54564	NVLHSAR	398.7248	2	21	y5	53.0	74.0
2807	IPI00277670.1	58144	VTQDATPGSALDK	651.8300	2	49	P y7	33.8	82.8
2808	IPI00116134.1	83258	LASVLNTDPALDSELTSK	937.4902	2	48	c b8 P	5.4	53.4
2809	IPI00116134.1	83258	VILGSKAAQQR	585.8473	2	19	y9	11.0	30.0
2810	IPI00339916.1	171739	AIQGATSHHLGQNF	565.9572	3	21	y++11	12.9	33.9
2811	IPI00339916.1	171739	EVVPVNLDAQEEMK	850.4311	2	48	y8	35.8	83.8
2812	IPI00137930.1	12853	SAIQNLHSFDPFADASKGDDLLPAGTEDYIHIR	914.9471	4	30		0.0	30.0
2813	IPI00137930.1	12853	SAIQNLHSFDPFADASKGDDLLPAGTEDYIHIR	914.9470	4	38	y6	16.9	54.9
2814	IPI00331528.4	12017	QGLLEFVDITATNNTSAIQDYQLQLTGAR	1061.2129	3	47	y4	18.5	65.5
2815	IPI00346002.2	26821	ATISNDGATILK	602.3329	2	46	y9	11.0	57.0
2816	IPI00330303.4	68172	DVSELTFPEMLGGR	804.3901	2	46	P y7	65.2	111.2
2817	IPI00315879.1	53190	TGQEIPVNL	563.8150	2	46	P y5	57.1	103.1
2818	IPI00128945.1	23063	MRNGYELSPATAANFTR	633.6454	3	38	c b8 P	12.2	50.2
2819	IPI00128945.1	23063	RFILNLPTFSVR	488.2893	3	31	b5	29.5	60.5
2820	IPI00128945.1	23063	VAASNIVQMKDDHDK	557.6100	3	17	y++12	29.0	46.0
2821	IPI00113845.1	26583	AGGSASAMLQPLLDNQVGF	1002.5148	2	45	c b10 P	19.2	64.2
2822	IPI00357831.3	18158	TITLQVEPSDTIENVK	894.9693	2	18		0.0	18.0
2823	IPI00357831.3	18158	TITLQVEPSDTIENVK	894.4690	2	45		0.0	45.0
2824	IPI00320400.5	53595	DAFERNPELQNLDDFFK	775.7244	3	25	y7	46.8	71.8
2825	IPI00320400.5	53595	VVQLEGSKK	494.2960	2	31	y7	49.6	80.6
2826	IPI00128491.1	19895	LGPIPFSSLLQYD	755.9052	2	44	y6	53.0	97.0

2827	IPI00119755.1	29692	EVFFVPLDYFLHPQVYYQK	811.7491	3	15		0.0	15.0
2828	IPI00119755.1	29692	EVFFVPLDYFLHPQVYYQK	811.7491	3	18		0.0	18.0
2829	IPI00119755.1	29692	FSVLVPLLAR	557.8528	2	44	P y5	65.2	109.2
2830	IPI00121736.1	21911	DRSGVISDNELQQALSNGTWPFPNPVTVR	1068.2092	3	44	P y5	49.6	93.6
2831	IPI00131478.1	34180	LHPDPGTWESFLENFMDGK	741.0100	3	26		0.0	26.0
2832	IPI00131478.1	34180	LHPDPGTWESFLENFMDGK	741.0101	3	27	y7	23.8	50.8
2833	IPI00131478.1	34180	YFAETMEQLQNFTAWPDDVLISTYPK	1036.8282	3	17	y5	18.5	35.5
2834	IPI00113262.1	34726	AVAVVVDPIQSVK	662.9028	2	36	y7	49.6	85.6
2835	IPI00113262.1	34726	HNESVVK	406.7170	2	31	y6	69.8	100.8
2836	IPI00113262.1	34726	LGGGMPGLGQGPPDAPAVDTAEQVYISSLALLK	1109.2447	3	18		0.0	18.0
2837	IPI00153294.2	60304	ILATGGASHNK	534.7936	2	43	y9	52.8	95.8
2838	IPI00222323.1	47746	AAFIDNMNQYTR	722.3448	2	25	y5	15.6	40.6
2839	IPI00222323.1	47746	WTSSDWTFDPR	699.3100	2	36	y6	12.9	48.9
2840	IPI00340120.2	40302	AIDLFTDAIK	553.8082	2	42	y8	90.2	132.2
2841	Trypsin	25078	VATVSLPR	421.7588	2	31	y4	16.9	47.9
2842	Trypsin	25078	VATVSLPR	421.7587	2	32	y6	38.2	70.2
2843	IPI00120095.2	73517	LTDNIFLEVHSTDPQLSEAQSILR	947.5038	3	41	y6	6.2	47.2
2844	IPI00120165.1	71131	EEGLPVPELFEDPLFSR	987.4962	2	41	P y5	65.2	106.2
2845	IPI00119622.1	55737	HLLDGIQR	476.2725	2	22	y6	35.8	57.8
2846	IPI00119622.1	55737	RIDQAFALTR	595.8359	2	40	y7	22.4	62.4
2847	IPI00127596.1	43246	DLFDPIIQR	616.3197	2	39	P y6	14.6	53.6
2848	IPI00127596.1	43246	SMTEQEQQQLIDDHFLFDKPVSPLLLASGMAR	912.4586	4	24	y5	16.9	40.9
2849	IPI00121788.1	22390	LVQAFQFTDK	598.8193	2	40	y8	23.8	63.8
2850	IPI00377386.1	41482	DLAEELGLVNVMEDK	559.2745	3	36		0.0	36.0
2851	IPI00377386.1	41482	ISGFPK	648.3727	1	31	y4	32.3	63.3
2852	IPI00352984.2	148534	KLHPVQER	336.1980	3	19		0.0	19.0
2853	IPI00134334.2	38486	VDPQLVDGHLSYFLGAIGMPGLTSLIGVQEK	1085.9133	3	20	y5	16.9	36.9
2854	IPI00134334.2	38486	VDPQLVDGHLSYFLGAIGMPGLTSLIGVQEK	1085.9128	3	39		0.0	39.0
2855	IPI00131228.1	27981	YDYVFPENGLVAYK	839.4112	2	39	P y9	78.1	117.1
2856	IPI00228757.1	5050	SDKPDMAEIEK	652.8046	2	38	P y8	102.9	140.9
2857	IPI00346617.2	31327	LQQLNAQYR	567.3072	2	37	y5	16.9	53.9
2858	IPI00125971.1	44430	ALQSVGQIVGEVLK	720.9251	2	24	y9	81.7	105.7
2859	IPI00125971.1	44430	ELREVIELPLTNPELFR	733.0728	3	18	c b8 P	33.8	51.8
2860	IPI00125971.1	44430	TLMELLNQMDGFDTLHR	678.9979	3	37	b5	8.5	45.5
2861	IPI00116281.1	58424	GIDPFSLDALAK	623.8385	2	37	P y9	66.6	103.6
2862	IPI00116308.1	41801	LAILYAK	396.2550	2	22	y4	44.5	66.5
2863	IPI00314948.3	70873	RGQVVGTR	436.7567	2	28	c b5	11.2	39.2
2864	IPI00314948.3	70873	VLSMAPGLTSVEIIPFR	915.5145	2	36	y4	16.9	52.9
2865	IPI00121271.1	23015	AAGHLLK	355.2215	2	22	c b6	27.2	49.2
2866	IPI00121271.1	23015	MVDMPANNK	510.2361	2	33	y7	77.6	110.6
2867	IPI00121271.1	23015	VLEVASGSGQHAHFAQAFPNAEWQPSVDVQR	863.4119	4	25		0.0	25.0

2868	IPI00121271.1	23015	VLEVASGSGQHAAHFAQAFPNAEWQPSDQDQR	863.4116	4	30	P y7	35.8	65.8
2869	IPI00355295.2	-1	ISQLIR	365.7265	2	36		0.0	36.0
2870	IPI00331262.1	80174	ENISQDIDHILETLSALAVDLGGTNLR	969.8444	3	17		0.0	17.0
2871	IPI00331262.1	80174	ENISQDIDHILETLSALAVDLGGTNLR	970.1760	3	36	y5	16.9	52.9
2872	IPI00126317.1	72134	KEQEAKEK	495.7645	2	35		0.0	35.0
2873	IPI00346834.1	63319	AQYEDIAQK	533.2645	2	35	y7	102.9	137.9
2874	IPI00274136.2	33525	MRKPDGSTVTQR	459.2422	3	34	y4	15.6	49.6
2875	IPI00228328.3	15117	AFDGTWK	866.4030	1	34		0.0	34.0
2876	IPI00228328.3	15117	ELIAVR	350.7215	2	18		0.0	18.0
2877	IPI00330246.1	152848	RTTESPR	423.7251	2	34	y4	1.3	35.3
2878	IPI00127989.1	18995	LNWLSVDFFNNWK	768.3862	2	34	y6	53.0	87.0
2879	IPI00318976.3	25958	FAEVENVVDITLFLSNR	693.7104	3	34	y4	15.6	49.6
2880	IPI00135730.1	20790	LGLHSLR	398.2455	2	34	y4	41.0	75.0
2881	IPI00122670.2	85543	ALWLPMGD	902.4420	1	34	P y4	69.9	103.9
2882	IPI00124793.1	34773	LQEAYYIFQELADK	866.4345	2	33	y7	35.8	68.8
2883	IPI00318182.1	154565	PLNVFIK	415.7587	2	33	c b6	7.1	40.1
2884	IPI00108762.1	10794	VAGQDGSVVQFK	617.8259	2	33	y7	33.8	66.8
2885	IPI00229834.2	140031	HVLEGHDR	321.4983	3	33	c b4	32.3	65.3
2886	IPI00380506.1	72843	QISAVHK	782.4532	1	33		0.0	33.0
2887	IPI00126730.2	97351	ESILRK	373.2321	2	33		0.0	33.0
2888	IPI00310091.1	66077	IGPILDNSTLQSEVKPILEK	732.4160	3	32	y++14	9.3	41.3
2889	IPI00127109.2	25515	LVLVGDGGTGK	508.2927	2	18	y7	21.2	39.2
2890	IPI00127109.2	25515	RHLTGEFEK	372.8646	3	31	y5	29.5	60.5
2891	IPI00113257.3	16458	LLEELEEGQK	594.3108	2	31	y8	129.6	160.6
2892	IPI00132957.1	-1	DLQLLR	379.2321	2	31	y4	41.0	72.0
2893	IPI00124639.1	23290	VASVYESPGFFLNLEPIPGALDALREMNDMK	1142.5745	3	31	y++17	5.4	36.4
2894	IPI00311229.1	72908	EVERALQLPK	592.3380	2	31		0.0	31.0
2895	IPI00114285.1	27708	LWMAAMQQDPVASSHK	600.6251	3	19	b4	7.7	26.7
2896	IPI00115580.1	42946	QQWQQLYDTLNAWK	911.9530	2	21	y++13	36.9	57.9
2897	IPI00115580.1	42946	VVVSHSTHR	341.1897	3	31		0.0	31.0
2898	IPI00119784.1	118438	NEFIPTNFEILSLEK	897.9729	2	30	c b4 P	16.9	46.9
2899	IPI00331650.1	27638	KGEHLSDAFAR	410.8791	3	30	y6	23.8	53.8
2900	IPI00112955.1	18770	ASGVAVSDGVIK	572.8140	2	22		0.0	22.0
2901	IPI00223217.4	23563	LAAIVAK	685.4604	1	30	b6	53.0	83.0
2902	IPI00124742.1	27381	ELPTEPPYTAYVGNLPGFNTVQGDIDAIFK	1070.8737	3	29	b5 P	8.5	37.5
2903	IPI00316314.1	64588	TQDVEYMFVGVGIPVTEIALAAQELGIK	998.1990	3	29	y8	11.6	40.6
2904	IPI00108125.2	17049	VHLVGIDIFTGK	433.5868	3	29	y4	57.1	86.1
2905	IPI00132080.1	27465	AAPAPSLISVFSSPQELGASLAQLVAQR	951.5191	3	18		0.0	18.0
2906	IPI00132080.1	27465	AAPAPSLISVFSSPQELGASLAQLVAQR	951.5191	3	28		0.0	28.0
2907	IPI00169473.1	138950	SGVHSHMTNTR	409.5283	3	28	y4	15.6	43.6
2908	IPI00313817.1	26367	GFSEGLWEIENNPVK	910.9339	2	28	P y4	29.5	57.5

2909	IPI00409959.1	19962	LYKQLSGK	937.5422	1	27		0.0	27.0
2910	IPI00351089.2	161873	XCSASLIIR	326.1774	3	15		0.0	15.0
2911	IPI00136213.3	103486	FHHSLTDHTR	417.5392	3	27	y5	27.2	54.2
2912	IPI00120074.1	31790	YGRPPDSHHSR	436.8780	3	26	c b6	23.8	49.8
2913	IPI00116221.1	33019	IFYTTTPVK	535.3002	2	27	y7	44.3	71.3
2914	IPI00116221.1	33019	SFTVTELR	476.7583	2	25	y4	15.6	40.6
2915	IPI00123494.3	100937	EWQELDDAEK	631.7805	2	26		0.0	26.0
2916	IPI00123975.1	61731	TGLPLSTYFSAVK	692.3839	2	26	y++11	27.2	53.2
2917	IPI00116753.3	35360	TIVAINKDPEAPIFQVADYGIVADLFK	983.5313	3	25	y4	55.9	80.9
2918	IPI00127207.1	42803	YNRKPAETNLR	454.5814	3	25	c b4 P	44.5	69.5
2919	IPI00223800.3	12035	DINLASFIEQVAVSMT	869.4384	2	25		0.0	25.0
2920	IPI00128484.1	52049	WFWDFAFR	564.7666	2	24	y6	46.8	70.8
2921	IPI00122265.1	12917	ENNAVYAFGLTAPPGSK	924.9766	2	21	P y5	38.2	59.2
2922	IPI00311395.1	45663	YVSEVVIGAPYSVTAELLNHFK	813.1001	3	21	b6	13.7	34.7
2923	IPI00113214.1	96685	IVILPDYLEIAR	707.9201	2	20	P y8	90.2	110.2
2924	IPI00113214.1	96685	QQDAQEFFLHLINMVER	707.0201	3	21	y5	29.5	50.5
2925	IPI00331156.2	17209	TNISDEESEQATEMLVHNAQNLMQSVK	1016.8107	3	20		0.0	20.0
2926	IPI00353928.2	430818	NLSLQLK	815.4943	1	24	c b5	29.5	53.5
2927	IPI00129685.1	19564	GKLEEQKPER	405.2225	3	27	y++7	29.5	56.5
2928	IPI00352763.2	772982	IASQLTK	761.4424	1	24		0.0	24.0
2929	IPI00352763.2	772982	IASQLTK	761.4422	1	30		0.0	30.0
2930	IPI00378205.2	353975	NMLVKLGKIDSK	681.3966	2	16		0.0	16.0
2931	IPI00338604.1	229824	KLDAQVQELHAK	460.5980	3	18		0.0	18.0
2932	IPI00123181.1	227414	DLGEELEALKTELEDTLDDSTAAQQELR	1006.8322	3	17	y7	13.7	30.7
2933	IPI00135085.3	21165	MLGMIR	762.4021	1	27		0.0	27.0
2934	IPI00135085.3	21165	RNEVWLVK	522.3033	2	30	c b6	53.0	83.0
2935	IPI00312356.3	56031	KIIEEAHSSGRK	452.2533	3	22	y5	15.6	37.6
2936	IPI00312356.3	56031	VAEHIHK	417.2353	2	29	c b6	38.2	67.2
2937	IPI00379759.1	55687	LGQGLK	308.6869	2	21		0.0	21.0
2938	IPI00124103.1	29464	GRPIAGQGRK	347.2091	3	23		0.0	23.0
2939	IPI00108330.1	20998	PTTLQVENISIGGVLVPLELK	741.0940	3	15		0.0	15.0
2940	IPI00114667.1	36574	VVVHPLVLLSVVDHFNR	486.7872	4	24		0.0	24.0
2941	IPI00405012.1	12987	LQFVMKSGKYVPGNKQTLK	728.7292	3	17		0.0	17.0
2942	IPI00126860.2	116434	AGNILLTEPGQVK	671.3745	2	16		0.0	16.0
2943	IPI00314736.3	28691	RIYLELR	481.7929	2	17	c b5	38.2	55.2
2944	IPI00379346.1	59157	MNLSLK	353.6908	2	18		0.0	18.0
2945	IPI00351821.1	52703	VYPFWTPDIPLNSYVK	970.5071	2	18	P y7	49.6	67.6
2946	IPI00109221.2	70195	QVIINLVNHKGSEK	789.9499	2	17	c b7	13.7	30.7
2947	IPI00274327.5	38394	VDVLM EK	417.2217	2	17		0.0	17.0
2948	IPI00229120.3	69952	LLPFEGPGK	479.2721	2	18		0.0	18.0
2949	IPI00119020.1	25118	KMAKQQQMDAVRIMAK	919.9642	2	16		0.0	16.0

2950	IPI00134122.1	12254	DAGVSVLR	429.7342	2	30		0.0	30.0
2951	IPI00111330.1	33816	KLPNSPMKAQK	414.8985	3	15		0.0	15.0
2952	IPI00315579.3	103024	LTGSASMAK	865.4571	1	30		0.0	30.0
2953	IPI00267295.2	106689	RLDVFEK	453.7557	2	28	b5	38.2	66.2
2954	IPI00119520.1	36620	DLNRAEEFAQK	660.8324	2	28	c b7	13.7	41.7
2955	IPI00354850.2	12231	ATQAQIK	380.7138	2	28		0.0	28.0
2956	IPI00377286.1	69600	EKLGFK	361.2158	2	27		0.0	27.0
2957	IPI00134853.2	49065	AIKVMQR	444.2636	2	27	y4	1.1	28.1
2958	IPI00111556.1	36123	RGEPHVTR	317.8421	3	29		0.0	29.0
2959	IPI00133734.1	9688	GEIRSATRVIGGPVTPRK	474.2770	4	25		0.0	25.0
2960	IPI00314909.1	46185	HREATAHLHK	400.5514	3	25		0.0	25.0
2961	IPI00137594.2	14320	CKEVQQIR	531.2702	2	25		0.0	25.0
2962	IPI00229301.1	53435	TLLQAGR	380.2219	2	25		0.0	25.0
2963	IPI00355229.2	91670	LNKLDNEDK	601.3254	2	25	c b7	1.6	26.6
2964	IPI00127755.3	96497	HINEIR	391.7119	2	25		0.0	25.0
2965	IPI00110556.1	57168	QYTLGKAK	454.7644	2	24	c b7	5.4	29.4
2966	IPI00227194.1	82731	QIIRNIK	443.2794	2	24		0.0	24.0
2967	IPI00314510.1	35720	HVAFLK	357.7187	2	24	c b5	38.2	62.2
2968	IPI00381351.1	16604	GCLELRNGIR	396.5510	3	24	c b4	1.1	25.1
2969	IPI00127820.1	23180	MAGKSSLFK	484.7633	2	24		0.0	24.0
2970	IPI00331663.1	20367	IQEGAAVLQK	528.8069	2	26	y8	20.1	46.1
2971	IPI00118817.1	192740	SSKKRELQDSASR	746.4020	2	24	c b7	1.6	25.6
2972	IPI00116143.1	14993	YESYANPSDPNPHLINQTQKENLRK	592.2894	5	23		0.0	23.0