

**Supplementary Table 2: Global proteomic profiling of fertile control group in triplicate – First run**

No.	Protein	Accession number	Mass (kDa)	Peptides number	Sequence coverage (%)	Spectral counts
1	semenogelin-2 precursor	4506885	65	62	62	1803
2	semenogelin-1 preproprotein	4506883	52	72	71	1588
3	lactotransferrin isoform 1 precursor	54607120	78	74	76	1308
4	A-kinase anchor protein 4 isoform 2	21493039	93	71	72	1069
5	tubulin beta-4B chain	5174735	50	39	74	922
6	fibronectin isoform 3 preproprotein	16933542	259	112	48	875
7	heat shock-related 70 protein 2	13676857	70	48	72	727
8	tubulin alpha-3C/D chain	17921993	50	34	75	638
9	heat shock protein HSP 90-alpha isoform 1	153792590	98	59	53	612
10	A-kinase anchor protein 3	21493041	95	58	56	567
11	actin, cytoplasmic 1	4501885	42	34	85	564
12	78 glucose-regulated protein precursor	16507237	72	38	55	544
13	prolactin-inducible protein precursor	4505821	17	17	77	540
14	clusterin preproprotein	355594753	52	28	43	515
15	keratin, type II cytoskeletal 1	119395750	66	44	53	494
16	endoplasmic precursor	4507677	92	55	55	473
17	heat shock cognate 71 protein isoform 1	5729877	71	18	43	447
18	keratin, type I cytoskeletal 9	55956899	62	41	62	446
19	pyruvate kinase isozymes M1/M2 isoform c	332164775	66	42	64	412
20	ATP synthase subunit beta, mitochondrial precursor	32189394	57	30	74	389
21	heat shock protein HSP 90-beta	20149594	83	23	47	385
22	prostatic acid phosphatase isoform TM-PAP precursor	197116348	48	22	44	366
23	heat shock 70 protein 1-like	124256496	70	28	59	350
24	protein disulfide-isomerase A3 precursor	21361657	57	36	65	340
25	tubulin alpha-1A chain	17986283	50	5	64	340
26	alpha-enolase isoform 1	4503571	47	35	77	337

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Supplementary Table 2: Contd...

No.	Protein	Gel 1				
		Accession number	Mass (kDa)	Peptides number	Sequence coverage (%)	Spectral counts
27	heat shock 70 protein 1A/1B	194248072	70	17	49	326
28	tubulin beta-4A chain	21361322	50	2	61	322
29	keratin, type I cytoskeletal 10	195972866	59	33	44	301
30	keratin, type II cytoskeletal 2 epidermal	47132620	65	30	57	276
31	fructose-bisphosphate aldolase A isoform 2	342187211	45	34	76	263
32	hypoxia up-regulated protein 1 precursor	5453832	111	48	45	258
33	outer dense fiber protein 2 isoform 3	310750406	81	30	48	255
34	pyruvate kinase isozymes M1/M2 isoform a	33286418	58	2	76	249
35	prostate-specific antigen isoform 1 preproprotein	4502173	29	17	84	241
36	calcium-binding tyrosine phosphorylation-regulated protein isoform c	24797112	41	23	59	238
37	glyceraldehyde-3-phosphate dehydrogenase, testis- specific	7657116	45	20	75	236
38	elongation factor 1-alpha 1	4503471	50	26	54	231
39	calcium-binding tyrosine phosphorylation-regulated protein isoform a	24797108	53	6	43	229
40	tubulin beta chain	29788785	50	2	61	229
41	tubulin beta-6 chain	14210536	50	3	19	228
42	aminopeptidase N precursor	157266300	110	50	41	226
43	keratin, type I cytoskeletal 13 isoform a	131412225	50	28	59	226
44	ropporin-1A	21359920	24	13	69	220
45	plastin-2	167614506	70	41	78	220
46	myosin-9	12667788	227	68	38	216
47	triosephosphate isomerase isoform 2	226529917	31	24	94	214
48	ruvB-like 2	5730023	51	35	76	212
49	tubulin beta-3 chain isoform 1	50592996	50	2	32	204
50	leucine-rich repeat-containing protein 37B precursor	53829385	106	28	29	203
51	ATP synthase subunit alpha, mitochondrial precursor	4757810	60	31	58	202
52	tubulin alpha-1C chain	14389309	50	2	61	200
53	60 heat shock protein, mitochondrial	31542947	61	37	76	190
54	transitional endoplasmic reticulum ATPase	6005942	89	37	51	189
55	fatty acid synthase	41872631	273	42	16	188
56	acetyl-CoA acetyltransferase, mitochondrial precursor	4557237	45	25	53	188
57	malate dehydrogenase, mitochondrial precursor	21735621	36	21	65	187
58	T-complex protein 1 subunit beta isoform 1	5453603	57	33	67	183
59	creatine kinase B-type	21536286	43	18	65	172
60	angiotensin-converting enzyme isoform 1 precursor	4503273	150	27	23	171
61	keratin, type II cytoskeletal 5	119395754	62	19	32	171
62	keratin, type II cytoskeletal 6A	5031839	60	13	45	171
63	phosphoglycerate kinase 2	31543397	45	26	75	163
64	annexin A5	4502107	36	24	79	163
65	glutathione S-transferase Mu 3	23065552	27	21	77	161
66	heat shock protein beta-1	4504517	23	18	87	160
67	fumarate hydratase, mitochondrial	19743875	55	22	61	159
68	ruvB-like 1	4506753	50	27	70	159
69	acrosin-binding protein precursor	17999524	61	23	43	158
70	hexokinase-1 isoform HK1-ta/tb	15991831	103	35	37	155
71	annexin A1	4502101	39	23	64	154
72	zona pellucida-binding protein 1 isoform 1 precursor	229577313	40	18	60	154
73	annexin A2 isoform 1	50845388	40	25	66	153
74	clathrin heavy chain 1	4758012	192	40	25	153
75	nuclear pore membrane glycoprotein 210-like isoform 1 precursor	117414168	211	50	32	149
76	uncharacterized protein C1orf56 precursor	20149646	37	14	53	147
77	T-complex protein 1 subunit gamma isoform a	63162572	61	28	69	145
78	glyceraldehyde-3-phosphate dehydrogenase	7669492	36	16	66	143
79	leucine-rich repeat-containing protein 37A precursor	289547512	188	23	14	143
80	neutral alpha-glucosidase AB isoform 2 precursor	38202257	107	32	30	141

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**Supplementary Table 2: Contd...**

No.	Gel 1					
	Protein	Accession number	Mass (kDa)	Peptides number	Sequence coverage (%)	Spectral counts
81	ropporin-1B	59891409	24	5	85	138
82	aconitate hydratase, mitochondrial precursor	4501867	85	25	39	137
83	cathelicidin antimicrobial peptide preproprotein	348041314	20	13	51	132
84	serum albumin preproprotein	4502027	69	30	51	131
85	sperm acrosome membrane-associated protein 1 precursor	13569934	32	8	33	131
86	ras-related protein Rab-2A isoform a	4506365	24	16	73	131
87	sorbitol dehydrogenase	156627571	38	17	50	125
88	cytochrome b-c1 complex subunit 2, mitochondrial precursor	50592988	48	21	54	124
89	radial spoke head protein 6 homolog A	13540559	81	16	32	123
90	dipeptidyl peptidase 4	18765694	88	30	36	121
91	keratin, type II cytoskeletal 4	331999954	56	24	51	120
92	calreticulin precursor	4757900	48	21	69	119
93	14-3-3 protein epsilon	5803225	29	20	62	118
94	long-chain-fatty-acid--CoA ligase 1	40807491	78	24	37	118
95	succinate dehydrogenase [ubiquinone] flavoprotein subunit, mitochondrial	156416003	73	26	57	117
96	peroxiredoxin-6	4758638	25	15	72	115
97	trifunctional enzyme subunit beta, mitochondrial precursor	4504327	51	26	54	112
98	L-lactate dehydrogenase C chain	4504973	36	24	75	111
99	T-complex protein 1 subunit delta	38455427	58	22	51	111
100	elongation factor 2	4503483	95	31	29	110
101	elongation factor 1-gamma	4503481	50	20	51	109
102	pyruvate dehydrogenase E1 component subunit beta, mitochondrial isoform 1 precursor	156564403	39	14	42	109
103	dolichyl-diphosphooligosaccharide--protein glycosyltransferase subunit 1 precursor	4506675	69	24	49	109
104	phospholipid hydroperoxide glutathione peroxidase, mitochondrial isoform A precursor	75709200	22	14	59	107
105	sperm protein associated with the nucleus on the X chromosome C	13435137	11	10	82	107
106	T-complex protein 1 subunit theta	48762932	60	24	52	105
107	T-complex protein 1 subunit eta isoform a	5453607	59	23	53	105
108	cytochrome c oxidase subunit 4 isoform 1, mitochondrial precursor	4502981	20	17	56	104
109	cysteine-rich secretory protein 1 isoform 1 precursor	327315372	28	14	71%	103
110	lipoprotein lipase precursor	4557727	53	16	32%	103
111	izumo sperm-egg fusion protein 4 isoform 1 precursor	89903025	24	9	50%	101
112	isocitrate dehydrogenase [NADP] cytoplasmic	28178825	47	18	42%	101
113	saccharopine dehydrogenase-like oxidoreductase	55770836	47	16	59%	99
114	T-complex protein 1 subunit alpha isoform a sperm protein associated with the nucleus on the X	22027492	12	7	81%	97
115	sperm protein associated with the nucleus on the X chromosome B/F	22027492	12	7	81%	97
116	calnexin precursor	10716563	68	21	34%	94
117	trifunctional enzyme subunit alpha, mitochondrial precursor	20127408	83	24	36%	94
118	sperm equatorial segment protein 1 precursor	21717832	39	13	33%	94
119	NADH-ubiquinone oxidoreductase 75 subunit, mitochondrial isoform 1	33519475	79	26	32%	94
120	tektin-2	16507950	50	24	62%	93
121	agrin precursor	54873613	215	37	26%	93
122	annexin A6 isoform 1	71773329	76	24	39%	91
123	mitochondrial inner membrane protein isoform 3	154354966	83	26	41%	91
124	protein disulfide-isomerase precursor	20070125	57	24	44%	90
125	cytochrome c oxidase subunit 5A, mitochondrial precursor	190885499	17	11	71%	90
126	T-complex protein 1 subunit epsilon	24307939	60	28	58%	87
127	tektin-3	13994250	57	19	56%	86
128	peroxiredoxin-1	320461711	22	11	58%	86
129	cAMP-dependent protein kinase type I-alpha regulatory subunit regulatory subunit	4506063	43	13	45%	85
130	keratin, type I cytoskeletal 14	15431310	52	9	36%	84
131	protein FAM166A	48717426	36	15	61%	84
132	L-asparaginase	145275200	32	13	52%	83
133	citrate synthase, mitochondrial precursor	38327625	52	21	58%	83

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Supplementary Table 2: Contd...

No.	Protein	Gel 1				
		Accession number	Mass (kDa)	Peptides number	Sequence coverage (%)	Spectral counts
134	dynein light chain 2, cytoplasmic	18087855	10	6	70%	83
135	dynein light chain 1, cytoplasmic	4505813	10	8	65%	81
136	phosphoglycerate kinase 1	4505763	45	12	52%	80
137	valyl-tRNA synthetase	5454158	140	26	24%	79
138	6-phosphofructokinase type C isoform 1	11321601	86	25	34%	79
139	protein disulfide-isomerase A4 precursor	4758304	73	23	38%	79
140	histone H2B type 1-A	24586679	14	7	37%	78
141	cytosol aminopeptidase	41393561	56	22	61%	77
142	dihydropyridyllysine-residue acetyltransferase component of pyruvate dehydrogenase complex mitochondrial precursor	31711992	69	16	30%	77
143	histone H4	4504303	11	12	65%	77
144	radial spoke head 1 homolog	18254456	35	14	55	77
145	erlin-2 isoform 1	6005721	38	19	58	76
146	dihydropyridyl dehydrogenase, mitochondrial precursor	91199540	54	21	56	75
147	cytosolic non-specific dipeptidase isoform 1	271398239	53	20	49	75
148	laminin subunit beta-2 precursor	119703755	196	24	17	74
149	14-3-3 protein zeta/delta	4507953	28	13	59	73
150	ubiquitin-40S ribosomal protein S27a precursor	208022622	18	4	30	72
151	vesicular integral-membrane protein VIP36 precursor	5803023	40	15	54	72
152	2,4-dienoyl-CoA reductase, mitochondrial precursor	4503301	36	15	59	72
153	sperm surface protein Sp17	8394343	17	11	79	72
154	cAMP-dependent protein kinase type II-alpha regulatory subunit	4758958	46	16	52	72
155	ezrin	21614499	69	18	29	71
156	carnitine O-palmitoyltransferase 2, mitochondrial precursor	4503023	74	28	52	71
157	importin subunit beta-1	19923142	97	19	21	70
158	serum amyloid P-component precursor	4502133	25	9	34	69
159	gastricsin isoform 1 preproprotein	4505757	42	5	12	69
160	annexin A3	4826643	36	13	28	67
161	radial spoke head protein 9 homolog isoform 1	32964825	31	19	79	67
162	peptidyl-prolyl cis-trans isomerase A	10863927	18	12	66	64
163	peroxiredoxin-5, mitochondrial isoform a precursor	6912238	22	14	57	63
164	histone H2A type 1-A	25092737	14	7	35	63
165	laminin subunit alpha-5 precursor	21264602	400	30	11	62
166	plasma serine protease inhibitor precursor	194018472	46	14	49	62
167	acrosin precursor	148613878	46	15	36	62
168	dipeptidase 3 isoform a precursor	193211608	56	14	27	61
169	D-3-phosphoglycerate dehydrogenase	23308577	57	10	20	60
170	peroxiredoxin-2 isoform a	32189392	22	10	54	60
171	voltage-dependent anion-selective channel protein 2 isoform 2	296317339	32	11	47	60
172	T-complex protein 1 subunit zeta-2 isoform 1	58331173	58	11	37	60
173	sperm protein associated with the nucleus on the X chromosome E	22027496	11	2	80	60
174	protein disulfide-isomerase A6 precursor	5031973	48	14	40	59
175	peroxiredoxin-4 precursor	5453549	31	12	56	58
176	adipocyte plasma membrane-associated protein	24308201	46	19	54	57
177	alpha-actinin-4	12025678	105	22	34	57
178	cofilin-1	5031635	19	10	62	57
179	adenylate kinase isoenzyme 1	4502011	22	10	55	57
180	alpha-centractin	5031569	43	13	59	56
181	myosin light polypeptide 6 isoform 2	88999583	17	7	58	56
182	laminin subunit gamma-1 precursor	145309326	178	20	18	55
183	peptidyl-prolyl cis-trans isomerase B precursor	4758950	24	11	52	55
184	cytochrome c oxidase subunit II	251831110	26	7	48	55
185	succinyl-CoA: 3-ketoacid-coenzyme A transferase 1, mitochondrial precursor	4557817	56	17	42	55

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No.	Protein	Gel 1				
		Accession number	Mass (kDa)	Peptides number	Sequence coverage (%)	Spectral counts
186	tripeptidyl-peptidase 2	186972143	138	24	22	55
187	single-stranded DNA-binding protein, mitochondrial precursor	4507231	17	10	70	54
188	epididymal sperm-binding protein 1 precursor	301601648	26	9	44	54
189	cytochrome b-c1 complex subunit 1, mitochondrial precursor	46593007	53	19	47	54
190	elongation factor 1-delta isoform 1	304555581	71	8	17	54
191	heat shock 70 protein 4L	31541941	95	26	36	54
192	keratin, type I cytoskeletal 16	24430192	51	7	32	54
193	acrosomal protein SP-10 isoform a precursor	4501879	28	6	22	53
194	carboxypeptidase Z isoform 2 precursor	62388875	73	15	27	53
195	mitochondrial carrier homolog 2	7657347	33	10	48	53
196	protein-glutamine gamma-glutamyltransferase 4	156627577	77	14	22	51
197	cytochrome c oxidase subunit 5B, mitochondrial precursor	17017988	14	14	67	51
198	60S acidic ribosomal protein PO	16933546	34	11	47	51
199	uncharacterized protein C9orf9	33285006	19	12	81	51
200	NADH dehydrogenase [ubiquinone] iron-sulfur protein 3, mitochondrial precursor	4758788	30	14	53	51
201	plastin-3 isoform 1	209862851	71	10	23	51
202	olfactomedin-4 precursor	32313593	57	13	32	50
203	ferritin, mitochondrial precursor	29126241	28	11	50	50
204	T-complex protein 1 subunit zeta isoform a	4502643	58	17	39	50
205	beta-2-microglobulin precursor	4757826	14	4	38	50
206	nuclear pore complex protein Nup155 isoform 1	24430149	155	20	18	50
207	14-3-3 protein sigma	5454052	28	8	48	50
208	matrix-remodeling-associated protein 5 precursor	139948432	312	22	7.50	49
209	voltage-dependent anion-selective channel protein 3 isoform 1	25188179	31	12	48	49
210	carbonic anhydrase 4 precursor	4502519	35	11	34	49
211	actin-related protein T2	29893808	42	14	55	49
212	fructose-bisphosphate aldolase C	4885063	39	3	21	49
213	glutamine synthetase	19923206	42	12	39	48
214	myeloid leukemia factor 1 isoform 1	11967975	31	10	34	48
215	26S protease regulatory subunit 6A	21361144	49	14	38	48
216	dolichyl-diphosphooligosaccharide--protein glycosyltransferase 48 subunit precursor	20070197	51	11	36	47
217	very long-chain specific acyl-CoA dehydrogenase, mitochondrial isoform 2 precursor	76496475	68	19	45	46
218	isocitrate dehydrogenase [NAD] subunit alpha, mitochondrial precursor	5031777	40	10	34	46
219	tektin-4	21389613	51	14	43	45
220	uncharacterized protein KIAA1683 isoform a	224451032	147	19	17	45
221	protein phosphatase 1 regulatory subunit 7	4506013	42	18	63	45
222	proteasome subunit beta type-5 isoform 1	4506201	28	10	39	44
223	sperm acrosome membrane-associated protein 3	27777653	23	8	33	44
224	26S proteasome non-ATPase regulatory subunit 2	25777602	100	18	25	44
225	electron transfer flavoprotein subunit alpha, mitochondrial isoform a	4503607	35	14	64	43
226	hydroxyacyl-coenzyme A dehydrogenase, mitochondrial isoform 1 precursor	296179427	36	9	51	43
227	coiled-coil domain-containing protein 147	56961680	103	19	22	43
228	nucleoporin p54	26051237	55	13	34	43
229	mucin-6 precursor	151301154	257	19	10	42
230	nucleoside diphosphate kinase homolog 5	4505413	24	9	64	42
231	26S protease regulatory subunit 8 isoform 1	24497435	46	10	35	41
232	profilin-1	4826898	15	7	51	41
233	ATP synthase subunit O, mitochondrial precursor	4502303	23	9	54	41
234	ATP synthase subunit d, mitochondrial isoform a	5453559	18	12	80	41
235	26S proteasome non-ATPase regulatory subunit 13 isoform 1	157502193	43	11	40	41
236	sodium/potassium-transporting ATPase subunit alpha-4 isoform 1	153946397	114	17	19	41
237	26S protease regulatory subunit 4	24430151	49	14	21	41
238	glypican-4 precursor	21614525	62	12	22	41
239	ras-related protein Rab-11B	190358517	24	11	49	40
240	3-hydroxyisobutyrate dehydrogenase, mitochondrial precursor	23308751	35	9	30	40

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No.	Protein	Gel 1				
		Accession number	Mass (kDa)	Peptides number	Sequence coverage (%)	Spectral counts
241	serpin B6	41152086	43	14	48	39
242	cytochrome c1, heme protein, mitochondrial	21359867	35	10	43	39
243	26S proteasome non-ATPase regulatory subunit 7	25777615	37	10	40	39
244	importin subunit alpha-2	4504897	58	14	50	39
245	alanyl-tRNA editing protein Aarsd1 isoform 1	217416402	66	11	28	39
246	L-lactate dehydrogenase A chain isoform 3	260099723	40	11	40	38
247	carboxypeptidase E preproprotein	4503009	53	9	19	38
248	proteasome subunit alpha type-5 isoform 1	23110942	26	9	52	38
249	dolichyl-diphosphooligosaccharide--protein glycosyltransferase subunit 2 isoform 2 precursor	209413738	68	14	33	38
250	synaptophysin-like protein 1 isoform a	5803185	29	5	30	38
251	26S protease regulatory subunit 6B isoform 1	5729991	47	12	38	38
252	nuclear pore complex protein Nup93 isoform 1	208609990	93	16	24	38
253	SYNJ2BP-COX16 protein isoform 1	321400118	21	7	33	38
254	outer dense fiber protein 3	19526475	28	13	57	38
255	heme oxygenase 2	8051608	36	12	46	38
256	FUN14 domain-containing protein 2	24371248	21	11	55	38
257	erlin-1	154800487	39	8	27	38
258	tetratricopeptide repeat protein 25	13899233	77	14	13	38
259	ubiquitin-like modifier-activating enzyme 1	23510340	118	9	8.20	37
260	nucleobindin-2 precursor	4826870	50	13	44	37
261	stress-70 protein, mitochondrial precursor	24234688	74	13	29	37
262	isocitrate dehydrogenase [NAD] subunit beta, mitochondrial isoform a precursor	28178821	42	13	44	37
263	importin-5	24797086	126	13	17	36
264	protein FAM71B	222418633	65	8	12	36
265	hyaluronidase PH-20 isoform 2	291290981	58	9	23	36
266	electron transfer flavoprotein subunit beta isoform 1	4503609	28	12	49	36
267	thioredoxin domain-containing protein 3	148839372	67	15	31	36
268	protein NDRG1	37655183	43	5	22	35
269	proteasome subunit alpha type-2	4506181	26	11	57	35
270	hsc70-interacting protein	19923193	41	6	20	35
271	collagen alpha-1(XVIII) chain isoform 1 precursor	110611235	154	10	9.00	35
272	vesicle-associated membrane protein-associated protein A isoform 2	94721252	28	7	38	35
273	26S proteasome non-ATPase regulatory subunit 11	28872725	47	11	31	35
274	mitochondria-eating protein	21687119	61	9	18	35
275	epididymal secretory protein E3-beta precursor	11641279	18	7	52	35
276	delta (3,5)-Delta (2,4)-dienoyl-CoA isomerase, mitochondrial precursor	70995211	36	13	55	35
277	protein S100-A8	21614544	11	7	53	34
278	transmembrane emp24 domain-containing protein 10 precursor	98986464	25	9	40	34
279	succinate dehydrogenase [ubiquinone] iron-sulfur subunit, mitochondrial precursor	115387094	32	12	38	34
280	uncharacterized protein C20orf107 precursor	71043642	19	12	55	34
281	barrier-to-autointegration factor	4502389	10	9	71	34
282	L-lactate dehydrogenase A-like 6B	15082234	42	11	42	34
283	pyruvate dehydrogenase E1 component subunit alpha, testis-specific form, mitochondrial precursor	4885543	43	12	39	34
284	thioredoxin-related transmembrane protein 4 precursor	40254947	39	5	17	34
285	signal peptidase complex subunit 2	162417971	25	10	44	34
286	lysosomal alpha-glucosidase preproprotein	119393891	105	9	11	34
287	maltase-glucoamylase, intestinal	221316699	210	14	10	33
288	glucose-6-phosphate isomerase isoform 2	18201905	63	12	35	33
289	neprilysin	116256329	86	12	19	33
290	glycerol kinase 2	41393575	61	10	24	33
291	axonemal dynein light intermediate polypeptide 1	37595560	32	11	43	33
292	nuclear pore membrane glycoprotein 210 precursor	27477134	205	14	9.40	33
293	anterior gradient protein 2 homolog precursor	5453541	20	6	47	33
294	enoyl-CoA hydratase, mitochondrial	194097323	31	12	48	33
295	prohibitin	4505773	30	11	58	33

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No.	Protein	Gel 1				
		Accession number	Mass (kDa)	Peptides number	Sequence coverage (%)	Spectral counts
296	cytochrome b-c1 complex subunit 7 isoform 1	5454152	14	8	59	33
297	DPY30 domain-containing protein 1	20270377	21	7	42	33
298	calmodulin	58218968	17	9	81	32
299	histone H3.1	4504281	15	5	43	32
300	medium-chain specific acyl-CoA dehydrogenase, mitochondrial isoform b precursor	187960098	47	12	35	32
301	chloride intracellular channel protein 1	14251209	27	6	36	32
302	protein DJ-1	31543380	20	13	87	32
303	synaptic vesicle membrane protein VAT-1 homolog	18379349	42	12	47	32
304	apolipoprotein A-I preproprotein	4557321	31	10	39	32
305	glucosidase 2 subunit beta isoform 1 precursor	48255889	59	9	18	31
306	14-3-3 protein theta	5803227	28	8	43	31
307	ADP/ATP translocase 4	13775208	35	9	31	31
308	myosin-10	41406064	229	7	9.30	31
309	eukaryotic translation initiation factor 5A-1 isoform B	219555712	17	8	51	31
310	reticulocalbin-2 precursor	4506457	37	10	44	31
311	ras-related protein Rab-14	19923483	24	10	56	31
312	short-chain specific acyl-CoA dehydrogenase, mitochondrial precursor	4557233	44	10	34	31
313	lysyl-tRNA synthetase isoform 1	194272210	71	8	16	31
314	histone H2A type 2-A	106775678	14	2	35	31
315	L-xylulose reductase isoform 1	7705925	26	8	37	30
316	alpha-crystallin B chain	4503057	20	11	55	30
317	ATP synthase subunit b, mitochondrial precursor	21361565	29	8	44	30
318	parkin coregulated gene protein isoform 2	122939202	29	9	46	30
319	radial spoke head protein 3 homolog	31543559	64	8	20	30
320	2-oxoglutarate dehydrogenase, mitochondrial isoform 3 precursor	259013553	116	14	18	30
321	proteasome subunit alpha type-7	4506189	28	5	52	30
322	keratin, type I cytoskeletal 19	24234699	44	5	34	30
323	aspartate aminotransferase, mitochondrial precursor	73486658	48	10	35	29
324	4-trimethylaminobutyraldehyde dehydrogenase	115387104	56	9	22	29
325	alcohol dehydrogenase [NADP+]	24497577	37	9	30	29
326	nitric oxide synthase, endothelial isoform 1	40254422	133	7	7.70	29
327	vesicle-fusing ATPase	156564401	83	12	18	29
328	protein dpy-19 homolog 2	93277105	87	11	16	29
329	peptidyl-prolyl cis-trans isomerase FKBP4	4503729	52	12	33	29
330	enkurin	21450721	29	8	34	29
331	enoyl-CoA delta isomerase 1, mitochondrial isoform 2 precursor	295842266	31	7	25	29
332	ES1 protein homolog, mitochondrial isoform 1a precursor	296531406	28	8	41	29
333	endophilin-B1 isoform 2	331284170	44	8	20	29
334	von Willebrand factor A domain-containing protein 1 isoform 1 precursor	40068485	47	12	44	29
335	large proline-rich protein BAG6 isoform a	149158692	119	10	14	29
336	ras-related protein Rab-2B isoform 1	21361884	24	3	56	29
337	glutamate carboxypeptidase 2 isoform 1	4758398	84	12	22	28
338	adenylate kinase 7	148727333	83	9	11	28
339	uncharacterized protein C20orf106 precursor	71043622	20	5	54	28
340	stomatin-like protein 2	7305503	39	9	47	28
341	coiled-coil domain-containing protein 63	22749217	66	11	26	28
342	alpha-actinin-1 isoform c	194097352	103	6	16	28
343	glutathione S-transferase P	4504183	23	6	52	27
344	annexin A4	4502105	36	12	42	27
345	proteasome subunit beta type-7 proprotein	4506203	30	11	42	27
346	26S protease regulatory subunit 10B	195539395	46	9	23	27
347	flavin reductase (NADPH)	4502419	22	4	24	27
348	ADP-ribosylation factor 1	4502201	21	8	45	27
349	ras-related protein Rab-1B	13569962	22	4	25	27

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**Supplementary Table 2: Contd...**

No.	Protein	Gel 1				
		Accession number	Mass (kDa)	Peptides number	Sequence coverage (%)	Spectral counts
350	isochorismatase domain-containing protein 2, mitochondrial isoform 2	13376007	24	6	60	27
351	60S acidic ribosomal protein P2	4506671	12	6	74	27
352	26S proteasome non-ATPase regulatory subunit 14	5031981	35	9	47	27
353	kallikrein-2 isoform 1 precursor	5031829	29	6	27	27
354	calmin	19923599	112	8	13	27
355	filamin-B isoform 2	105990514	278	15	7.50	26
356	proteasome subunit alpha type-1 isoform 1	23110935	30	9	39	26
357	G-protein coupled receptor 64 isoform 2 precursor	119943116	110	7	9.40	26
358	10 heat shock protein, mitochondrial	4504523	11	8	60	26
359	transmembrane emp24 domain-containing protein 9 precursor	39725636	27	9	20	26
360	protein FAM154A	301129242	55	9	23	26
361	epididymal secretory protein E3-alpha precursor	11386189	18	5	31	26
362	alpha-mannosidase 2C1	46852164	116	13	14	26
363	cullin-associated NEDD8-dissociated protein 1	21361794	136	12	13	25
364	phosphatidylethanolamine-binding protein 1 preproprotein	4505621	21	6	57	25
365	sperm-associated antigen 6 isoform 1	6912678	55	9	34	25
366	carbonyl reductase [NADPH] 1	4502599	30	6	28	25
367	tektin-1	16753231	48	8	29	25
368	testis-expressed protein 101 isoform 1	194018544	29	5	23	25
369	malectin precursor	7661948	32	9	41	25
370	protein S100-A11	5032057	12	7	56	25
371	cytochrome b-c1 complex subunit Rieske, mitochondrial	163644321	30	8	30	25
372	calmegin precursor	4758004	70	9	15	25
373	26S proteasome non-ATPase regulatory subunit 3	25777612	61	12	29	25
374	ubiquitin carboxyl-terminal hydrolase isozyme L3	5174741	26	7	35	25
375	pyruvate dehydrogenase protein X component, mitochondrial isoform 2	203098816	51	10	25	25
376	GTP-binding nuclear protein Ran	5453555	24	7	23	25
377	26S proteasome non-ATPase regulatory subunit 1 isoform 1	25777600	106	10	9.70	25
378	cAMP-dependent protein kinase catalytic subunit alpha isoform 2	46909584	40	7	26	25
379	keratin, type I cytoskeletal 18	4557888	48	9	33	25
380	sodium/potassium-transporting ATPase subunit alpha-2 proprotein	4502271	112	2	11	25
381	sodium/potassium-transporting ATPase subunit alpha-3	22748667	112	2	12	25
382	proteasome subunit alpha type-6	23110944	27	9	43	24
383	proteasome subunit alpha type-3 isoform 2	23110939	28	7	30	24
384	CDGSH iron-sulfur domain-containing protein 1	8923930	12	6	56	24
385	adenyl cyclase-associated protein 1	5453595	52	8	17	24
386	hydroxyacylglutathione hydrolase, mitochondrial isoform 1 precursor	94538322	34	9	36	24
387	prenylcysteine oxidase 1 precursor	166795301	57	10	25	24
388	dnaJ homolog subfamily B member 11 precursor	7706495	41	10	27	24
389	rab GDP dissociation inhibitor beta isoform 1	6598323	51	10	27	24
390	beta-lactamase-like protein 2	7705793	33	9	43	24
391	dynactin subunit 1 isoform 1	13259510	142	13	8.50	24
392	dihydrolipoyllysine-residue succinyltransferase component of 2-oxoglutarate dehydrogenase complex, mitochondrial isoform 1 precursor	19923748	49	11	36	23
393	proteasome subunit alpha type-7-like isoform 2	68303563	28	8	42	23
394	proteasome subunit beta type-3	22538465	23	7	47	23
395	NADH-cytochrome b5 reductase 2	47778923	31	9	47	23
396	endoplasmic reticulum resident protein 44 precursor	52487191	47	8	27	23
397	succinyl-CoA ligase [ADP-forming] subunit beta, mitochondrial precursor	11321583	50	7	12	23
398	ras-related protein Rab-3B	19923750	25	5	22	23
399	vimentin	62414289	54	8	24	23
400	acrosome formation-associated factor isoform 1	239582757	33	6	30	23
401	abhydrolase domain-containing protein 10, mitochondrial precursor	8923001	34	7	33	23
402	adenylate kinase 8	22749187	55	11	28	23

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## Supplementary Table 2: Contd...

No.	Protein	Gel 1				
		Accession number	Mass (kDa)	Peptides number	Sequence coverage (%)	Spectral counts
403	histone H2A.V isoform 1	6912616	14	3	31	23
404	uncharacterized protein C1orf194	171916088	18	6	55	23
405	beta-centractin	11342680	42	2	36	23
406	glutathione reductase, mitochondrial isoform 1 precursor	50301238	56	10	32	22
407	ras GTPase-activating-like protein IQGAP1	4506787	189	10	7.80	22
408	transmembrane protease serine 2 isoform 2	205360943	54	5	10	22
409	proteasome subunit beta type-6	23110925	25	4	29	22
410	proteasome activator complex subunit 1 isoform 1	5453990	29	9	41	22
411	rho GDP-dissociation inhibitor 1 isoform a	4757768	23	4	26	22
412	cathepsin F precursor	6042196	53	7	13	22
413	NADH dehydrogenase [ubiquinone] flavoprotein 1, mitochondrial isoform 1 precursor	20149568	51	8	29	22
414	F-actin-capping protein subunit alpha-1	5453597	33	5	34	22
415	transthyretin precursor	4507725	16	8	54	22
416	sodium/potassium-transporting ATPase subunit alpha-1 isoform a	21361181	113	3	13	22
417	superoxide dismutase [Mn], mitochondrial isoform A precursor	67782305	25	7	38	21
418	galectin-3-binding protein precursor	5031863	65	6	11	21
419	proteasome subunit beta type-1	4506193	26	7	40	21
420	uromodulin precursor	59850812	70	7	12	21
421	protein-L-isoaspartate (D-aspartate) O-methyltransferase isoform 2	354983493	30	7	45	21
422	endoplasmic reticulum resident protein 29 isoform 1 precursor	5803013	29	8	35	21
423	coiled-coil domain-containing protein 19, mitochondrial precursor	81295816	66	7	15	21
424	membrane-associated progesterone receptor component 2	291621647	26	4	17	21
425	eukaryotic translation initiation factor 3 subunit F	4503519	38	7	23	21
426	lysozyme-like protein 4 precursor	21389465	16	5	42	21
427	dnaJ homolog subfamily B member 1	5453690	38	6	16	21
428	brain acid soluble protein 1	30795231	23	6	40	20
429	WD repeat-containing protein 16 isoform b	124028512	68	9	13	20
430	6-phosphogluconate dehydrogenase, decarboxylating	40068518	53	7	23	20
431	proteasome subunit alpha type-4 isoform 1	4506185	29	8	46	20
432	complement component 1 Q subcomponent-binding protein, mitochondrial precursor	4502491	31	6	32	20
433	hypoxanthine-guanine phosphoribosyltransferase	4504483	25	6	32	20
434	myosin regulatory light chain 12B	15809016	20	7	51	20
435	transcription factor A, mitochondrial precursor	4507401	29	9	41	20
436	sperm acrosome-associated protein 5 precursor	120952755	18	5	31	20
437	uncharacterized protein C2orf57	284413778	42	4	15	20
438	long-chain-fatty-acid--CoA ligase 6 isoform e	327412327	79	9	17	20
439	histone H1t	20544168	22	7	30	20
440	dnaJ homolog subfamily A member 2	5031741	46	7	27	20
441	melanoma inhibitory activity protein 3 precursor	122891870	214	9	6.20	20
442	14-3-3 protein beta/alpha	21328448	28	3	35	20
443	normal mucosa of esophagus-specific gene 1 protein	37694067	10	5	52	20
444	solute carrier family 2, facilitated glucose transporter member 14	23592238	56	6	13	19
445	protein NipSnap homolog 3A	22267436	28	6	31	19
446	CD59 glycoprotein preproprotein	187828910	14	5	26	19
447	NME1-NME2 protein	66392203	30	8	35	19
448	translin	4759270	26	6	38	19
449	transmembrane protein 190 precursor	21040263	19	6	39	19
450	nicastrin precursor	24638433	78	8	13	19
451	general vesicular transport factor p115	4505541	108	9	8.90	19
452	kunitz-type protease inhibitor 3 precursor	189571689	10	3	29	19
453	coiled-coil-helix-coiled-coil-helix domain-containing protein 3, mitochondrial precursor	8923390	26	6	19	19
454	sperm acrosome membrane-associated protein 4 precursor	19424138	13	2	22	19

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Supplementary Table 2: Contd...

No.	Protein	Gel 1				
		Accession number	Mass (kDa)	Peptides number	Sequence coverage (%)	Spectral counts
455	deoxyguanosine kinase, mitochondrial isoform a precursor	18426967	32	7	35	19
456	coiled-coil domain-containing protein 105	226492892	57	7	16	19
457	cytochrome c	11128019	12	5	46	19
458	NADH dehydrogenase [ubiquinone] iron-sulfur protein 6, mitochondrial precursor	4758792	14	6	61	19
459	L-lactate dehydrogenase B chain	4557032	37	6	31	19
460	ADP-ribosylation factor 4	4502205	21	4	52	19
461	lipid phosphate phosphohydrolase 1 isoform 1	29171736	32	3	16	18
462	sodium/potassium-transporting ATPase subunit beta-3	4502281	32	8	33	18
463	lactoylglutathione lyase	118402586	21	5	22	18
464	glypican-1 precursor	167001141	62	7	10	18
465	thioredoxin reductase 2, mitochondrial precursor	22035672	57	7	27	18
466	transmembrane and coiled-coil domain-containing protein 2	56847610	20	5	33	18
467	extracellular matrix protein 1 isoform 3 precursor	322302700	64	7	12	18
468	translationally-controlled tumor protein	4507669	20	4	24	18
469	uncharacterized protein C9orf24 isoform 1	21362074	30	7	29	18
470	EGF-like repeat and discoidin I-like domain-containing protein 3 precursor	31317224	54	8	24	18
471	NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit 10	4758774	21	6	37	18
472	prostate and testis expressed protein 1 precursor	19923082	14	6	55	18
473	EF-hand domain-containing family member C2	31542743	87	6	7.30	18
474	26S proteasome non-ATPase regulatory subunit 8	156631005	40	7	26	18
475	EF-hand domain-containing protein 1 isoform 1	156616292	74	8	14	18
476	nucleotide exchange factor SIL1 precursor	11968009	52	7	16	18
477	adenylate kinase 2, mitochondrial isoform a	4502013	26	6	36	18
478	nuclear pore glycoprotein p62	24497605	53	5	12	18
479	aspartyl aminopeptidase	156416028	53	8	30	17
480	lysosome-associated membrane glycoprotein 1 precursor	112380628	45	5	12	17
481	proteasome subunit beta type-4	22538467	29	7	39	17
482	dynein heavy chain 8, axonemal	332688227	539	10	2.40	17
483	calpain small subunit 1	51599151	28	5	20	17
484	dynein heavy chain 17, axonemal	256542310	509	8	2.90	17
485	hornerin	57864582	282	7	5.20	17
486	26S protease regulatory subunit 7 isoform 1	4506209	49	7	22	17
487	eukaryotic initiation factor 4A-I isoform 1	4503529	46	6	21	17
488	carboxypeptidase D isoform 1 precursor	22202611	153	9	9.50	17
489	lactadherin isoform a preproprotein	167830475	43	5	18	17
490	bifunctional aminoacyl-tRNA synthetase	62241042	171	8	5.70	17
491	receptor expression-enhancing protein 6	19923919	21	5	22	17
492	serine/threonine-protein phosphatase PP1-beta catalytic subunit isoform 1	4506005	37	5	21	17
493	ribonuclease-like protein 13 precursor	59276062	18	5	33	17
494	keratin, type II cytoskeletal 8	4504919	54	4	14	17
495	exportin-7	154448892	124	8	9.20	17
496	leucine zipper transcription factor-like protein 1	9966793	35	7	23	17
497	40S ribosomal protein SA	59859885	33	6	35	17
498	acyl-CoA-binding protein isoform 5	295842514	14	5	44	17
499	voltage-dependent anion-selective channel protein 1	4507879	31	6	23	17
500	L-amino-acid oxidase isoform 2 precursor	27477089	65	7	19	17
501	uncharacterized protein C15orf26	148747373	34	6	25	17
502	cytochrome c oxidase subunit 6A1, mitochondrial precursor	17999528	12	2	43	17
503	adenosylhomocysteinase isoform 1	9951915	48	9	24	16
504	protein S100-A9	4506773	13	6	53	16
505	tektin-5	21389569	56	7	18	16
506	copper homeostasis protein cutC homolog	148596990	29	7	41	16

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**Supplementary Table 2: Contd...**

No.	Protein	Gel 1				
		Accession number	Mass (kDa)	Peptides number	Sequence coverage (%)	Spectral counts
507	membrane-associated progesterone receptor component 1	5729875	22	6	24	16
508	T-complex protein 11 homolog isoform 1	148226214	57	5	19	16
509	testis-specific H1 histone	32401437	28	4	13	16
510	glycodelin precursor	65507501	21	3	24	16
511	phosphoglycerate mutase 2	50593010	29	8	46	16
512	adenine phosphoribosyltransferase isoform a	4502171	20	6	43	16
513	alpha-soluble NSF attachment protein	47933379	33	8	39	16
514	cytochrome c oxidase subunit 6B1	4502985	10	5	57	16
515	serine/threonine-protein phosphatase with EF-hands 1 isoform 1b	23312374	73	6	11	16
516	ATP synthase subunit gamma, mitochondrial isoform L (liver) precursor	50345988	33	6	22	16
517	LETM1 and EF-hand domain-containing protein 1, mitochondrial precursor	6912482	83	7	12	16
518	heme-binding protein 2	7657603	23	4	20	16
519	transcription elongation factor B polypeptide 1 isoform a	325652033	12	5	51	16
520	transmembrane protein 89 precursor	56847630	18	4	28	16
521	cadherin-1 preproprotein	4757960	97	5	5.80	16
522	programmed cell death protein 6	7019485	22	7	61	16
523	histone H2A-Bbd type 2/3	63029935	13	5	67	16
524	eukaryotic translation initiation factor 3 subunit I	4503513	37	6	31	16
525	14-3-3 protein gamma	21464101	28	2	20	16
526	NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 5	4826848	13	6	66	16
527	3-hydroxyacyl-CoA dehydrogenase type-2 isoform 1	4758504	27	6	33	16
528	myeloperoxidase precursor	4557759	84	9	16	15
529	zinc-alpha-2-glycoprotein precursor	4502337	34	6	27	15
530	ras-related protein Rab-27B	5729997	25	6	26	15
531	prostasin preproprotein	4506153	36	5	22	15
532	plasma membrane calcium-transporting ATPase 4 isoform 4b	48255957	134	7	6.90	15
533	zymogen granule protein 16 homolog B precursor	94536866	23	4	27	15
534	dynactin subunit 2	5453629	45	5	18	15
535	40S ribosomal protein S3a	4506723	30	6	28	15
536	dnaJ homolog subfamily B member 8	23503241	26	6	36	15
537	kinectin isoform a	33620775	156	8	6.60	15
538	transmembrane emp24 domain-containing protein 4 precursor	33457308	26	4	25	15
539	EF-hand calcium-binding domain-containing protein 6 isoform a	38570107	173	7	6.70	15
540	histidine triad nucleotide-binding protein 1	4885413	14	6	72	15
541	NADH dehydrogenase [ubiquinone] iron-sulfur protein 8, mitochondrial precursor	4505371	24	4	20	15
542	fatty acid-binding protein, epidermal	4557581	15	6	38	15
543	ADP/ATP translocase 2	156071459	33	5	24	15
544	serine/threonine-protein phosphatase PGAM5, mitochondrial isoform 1	281604136	32	4	12	15
545	cullin-3	4503165	89	10	17	15
546	phosphoglycerate mutase 1	4505753	29	5	46	15
547	RPS10-NUDT3 protein	321117084	33	3	14	15
548	cancer/testis antigen 47A	121949786	30	4	25	15
549	eukaryotic initiation factor 4A-II	83700235	46	2	21	15
550	14-3-3 protein eta	4507951	28	2	20	15
551	cofilin-2 isoform 1	33946278	19	2	39	15
552	aspartate aminotransferase, cytoplasmic	4504067	46	7	28	14
553	epididymal secretory protein E1 precursor	5453678	17	5	39	14
554	gamma-glutamyltranspeptidase 1 precursor	73915090	61	4	7.20	14
555	casein kinase II subunit alpha isoform a	29570791	45	5	23	14
556	protein ERGIC-53 precursor	5031873	58	5	9.40	14
557	beta-defensin 129 precursor	18250304	20	5	30	14
558	receptor expression-enhancing protein 5	115430112	21	3	11	14

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Supplementary Table 2: Contd...

No.	Protein	Accession number	Mass (kDa)	Peptides number	Sequence coverage (%)	Spectral counts
559	endoplasmic reticulum-Golgi intermediate compartment protein 3 isoform a	38327615	44	6	15	14
560	vesicle-associated membrane protein 3	4759300	11	5	41	14
561	BPI fold-containing family A member 3 isoform 1 precursor	109627654	28	4	28	14
562	metalloproteinase inhibitor 1 precursor	4507509	23	5	37	14
563	40S ribosomal protein S2	15055539	31	6	21	14
564	ropporin-1-like protein	17572807	26	6	29	14
565	basigin isoform 2 precursor	38372925	29	5	26	14
566	ATPase inhibitor, mitochondrial isoform 1 precursor	7705927	12	2	7.50	14
567	speriolin isoform 1	197276668	62	4	6.90	14
568	calcium-binding and spermatid-specific protein 1	90652863	43	3	10	14
569	retinoid-inducible serine carboxypeptidase precursor	11055992	51	7	18	14
570	translocon-associated protein subunit alpha precursor	169404009	32	3	12	14
571	histidine triad nucleotide-binding protein 2, mitochondrial precursor	14211923	17	4	37	14
572	NADH dehydrogenase [ubiquinone] flavoprotein 2, mitochondrial precursor	222080062	27	5	24	14
573	serine protease 58 precursor	48255915	27	5	26	14
574	40S ribosomal protein S18	11968182	18	5	31	14
575	40S ribosomal protein S16	4506691	16	3	19	14
576	ATP synthase subunit g, mitochondrial	51479156	11	4	47	14
577	tryptophanyl-tRNA synthetase, cytoplasmic isoform b	47419918	49	6	23	14
578	mitochondrial import receptor subunit TOM22 homolog	9910382	16	4	54	14
579	heterogeneous nuclear ribonucleoprotein M isoform a	14141152	78	7	9.90	14
580	dnaJ homolog subfamily B member 13	39204547	36	5	20	14
581	nidogen-1 precursor	115298674	136	7	8.30	14
582	sortilin isoform 1 preproprotein	17149834	92	5	7.20	14
583	serine/threonine-protein phosphatase 2A activator isoform b	29725611	37	5	27	14
584	ATP synthase subunit e, mitochondrial	6005717	8	4	46	14
585	cytochrome c oxidase subunit 6C proprotein	4758040	9	4	37	14
586	chitinase domain-containing protein 1 isoform a	218083142	45	6	21	14
587	UBX domain-containing protein 11 isoform 1	116734681	54	5	16	14
588	coiled-coil domain-containing protein 40 isoform 1	148664197	130	7	6.70	14
589	ras-related protein Rab-1A isoform 1	4758988	23	3	32	14
590	CD177 antigen precursor	110735433	46	5	17	13
591	glucosamine--fructose-6-phosphate aminotransferase [isomerizing] 1 isoform 1	347659028	79	5	8.70	13
592	neutrophil defensin 3 preproprotein	4885179	10	4	20	13
593	mesencephalic astrocyte-derived neurotrophic factor precursor	299523086	21	6	32	13
594	transmembrane emp24 domain-containing protein 7 precursor	32996709	25	4	21	13
595	uncharacterized protein C7orf61	51972226	24	4	24	13
596	stress-induced-phosphoprotein 1	5803181	63	4	9.80	13
597	kelch-like protein 10	148664209	69	7	17	13
598	COP9 signalosome complex subunit 4	38373690	46	4	7.90	13
599	ras-related protein Ral-A precursor	33946329	24	3	13	13
600	disintegrin and metalloproteinase domain-containing protein 7 preproprotein	114326453	86	6	9.20	13
601	lysozyme-like protein 6 precursor	9966905	17	3	42	13
602	izumo sperm-egg fusion protein 2 precursor	63999117	25	4	14	13
603	C-Myc-binding protein	57242777	12	6	65	13
604	glycerol kinase isoform a	42794763	58	2	11	13
605	NAD-dependent malic enzyme, mitochondrial isoform 1 precursor [Homo	4505145	65	6	19	13
606	importin subunit alpha-4	34485722	58	6	14	13
607	cytoplasmic dynein 1 heavy chain 1	33350932	532	8	2.20	12
608	alpha-1-antitrypsin precursor	50363217	47	4	14	12
609	ribonuclease inhibitor	42822872	50	6	14	12
610	acylamino-acid-releasing enzyme	23510451	81	5	11	12

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Supplementary Table 2: Contd...

No.	Protein	Accession number	Mass (kDa)	Peptides number	Sequence coverage (%)	Spectral counts
611	annexin A11	22165431	54	4	10	12
612	platelet-activating factor acetylhydrolase precursor	270133071	50	4	15	12
613	serine/threonine-protein phosphatase 2A 65 regulatory subunit A alpha isoform	21361399	65	6	14	12
614	leukocyte surface antigen CD47 isoform 1 precursor	4502673	35	2	5.90	12
615	interferon-inducible GTPase 5	10257429	50	6	25	12
616	26S proteasome non-ATPase regulatory subunit 12 isoform 1	4506221	53	4	13	12
617	slit homolog 2 protein precursor	4759146	170	8	7.50	12
618	tomoregulin-2 precursor	12383051	41	5	13	12
619	fragile X mental retardation 1 neighbor protein	22749199	29	4	20	12
620	thioredoxin isoform 1	50592994	12	4	43	12
621	malate dehydrogenase, cytoplasmic isoform 1	312283701	39	6	27	12
622	mRNA export factor	62739173	41	4	16	12
623	45 calcium-binding protein isoform 2 precursor	18699732	42	5	23	12
624	uncharacterized protein C6orf81	31542280	41	4	19	12
625	40S ribosomal protein S8	4506743	24	4	19	12
626	histone H2B type 1-M	4504263	14	2	32	12
627	cytochrome b-c1 complex subunit 6, mitochondrial	83627705	11	4	58	12
628	UPF0733 protein C2orf88	110349742	11	6	68	12
629	translin-associated protein X	5174731	33	6	33	12
630	signal peptidase complex catalytic subunit SEC11A	7657609	21	4	31	12
631	A disintegrin and metalloproteinase with thrombospondin motifs 1 preproprotein	50845384	105	4	5.50	12
632	sulfatase-modifying factor 2 isoform e precursor	194248090	39	4	14	12
633	heat shock 70 protein 13 precursor	48928056	52	5	15	12
634	acyl-coenzyme A thioesterase 13 isoform 2	231567183	12	4	35	12
635	dynein light chain roadblock-type 2	18702323	11	3	34	12
636	nucleoporin p58/p45 isoform a	30102928	61	6	13	12
637	clathrin light chain A isoform a	4502899	24	4	22	12
638	40S ribosomal protein S19	4506695	16	4	30	12
639	ras-related protein Rab-5C isoform a	41393614	23	4	24	11
640	acid ceramidase isoform b	189011546	47	5	11	11
641	proteasome subunit beta type-2 isoform 1	4506195	23	6	50	11
642	poly (rC)-binding protein 1	222352151	37	4	12	11
643	ecto-ADP-ribosyltransferase 3 isoform a precursor	194097380	44	4	12	11
644	ribose-phosphate pyrophosphokinase 2 isoform 2	4506129	35	5	23	11
645	3-ketoacyl-CoA thiolase, mitochondrial	167614485	42	6	25	11
646	V-type proton ATPase catalytic subunit A	19913424	68	6	19	11
647	GLIPR1-like protein 1 precursor	22749527	26	3	16	11
648	40S ribosomal protein S9	14141193	23	3	12	11
649	desmoplakin isoform I	58530840	332	7	3.00	11
650	actin-related protein M1	221139714	41	4	18	11
651	dnaJ homolog subfamily A member 4 isoform 2	194328760	45	6	18	11
652	semaphorin-3C precursor	5454048	85	3	6.10	11
653	apolipoprotein A-IV precursor	71773110	45	5	15	11
654	testis, prostate and placenta-expressed protein isoform 2 precursor	154759245	31	5	26	11
655	enoyl-CoA delta isomerase 2, mitochondrial isoform 2	260274832	44	7	22	11
656	stromal cell-derived factor 2-like protein 1 precursor	56243533	24	5	44	11
657	actin-like protein 7A	5729720	49	4	18	11
658	methionyl-tRNA synthetase, cytoplasmic	14043022	101	6	8.90	11
659	apoptosis-inducing factor 1, mitochondrial isoform 2 precursor	22202629	66	5	11	11
660	profilin-3	71274140	15	5	51	11
661	transmembrane protein 126A isoform 1	14150017	22	4	34	11
662	aldose reductase	4502049	36	5	26	10
663	glycogen phosphorylase, brain form	21361370	97	4	4.70	10
664	superoxide dismutase [Cu-Zn]	4507149	16	4	60	10

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**Supplementary Table 2: Contd...**

No.	Protein	Gel 1				
		Accession number	Mass (kDa)	Peptides number	Sequence coverage (%)	Spectral counts
665	purine nucleoside phosphorylase	157168362	32	5	24	10
666	ras-related protein Rab-7a	34147513	23	5	28	10
667	carnitine O-acetyltransferase precursor	21618331	71	5	7.70	10
668	acyl carrier protein, mitochondrial precursor	4826852	17	3	12	10
669	atlastin-3	45827806	61	4	14	10
670	serine/threonine-protein phosphatase 2A catalytic subunit alpha isoform	4506017	36	4	21	10
671	ubiquitin thioesterase OTUB1	109148508	31	5	24	10
672	erythrocyte band 7 integral membrane protein isoform a	38016911	32	4	20	10
673	serine protease inhibitor Kazal-type 2 precursor	10863911	9	2	36	10
674	regenerating islet-derived protein 3-gamma precursor	38348213	19	3	27	10
675	casein kinase II subunit beta	23503295	25	5	25	10
676	aspartyl-tRNA synthetase, cytoplasmic	45439306	57	5	9.60	10
677	septin-7 isoform 2	148352329	51	5	19	10
678	nitrilase homolog 1 isoform 3	297632348	34	4	14	10
679	signal peptidase complex subunit 3	11345462	20	4	22	10
680	transcription elongation factor B polypeptide 2 isoform b	46276893	18	5	34	10
681	40S ribosomal protein S12	14277700	15	5	51	10
682	26S proteasome non-ATPase regulatory subunit 4	5292161	41	4	11	10
683	mitochondrial import receptor subunit TOM34	21361356	35	4	13	10
684	heat shock 70 protein 4	38327039	94	3	4.50	10
685	acetyl-CoA acetyltransferase, cytosolic	148539872	41	4	17	10
686	nuclear migration protein nudC	5729953	38	4	15	10
687	eukaryotic translation elongation factor 1 epsilon-1 isoform 1	4758862	20	4	34	10
688	dynein light chain Tctex-type 1	5730085	12	4	30	10
689	metalloproteinase inhibitor 3 precursor	4507513	24	5	25	10
690	carbonic anhydrase 2	4557395	29	4	20	10
691	NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit 7	10764847	16	4	26	10
692	40S ribosomal protein S17	4506693	16	3	43	10
693	dynein heavy chain 7, axonemal	151301127	461	4	1.20	10
694	nucleoporin NUP53	31982904	35	4	18	10
695	COP9 signalosome complex subunit 8 isoform 1	5729779	23	3	30	10
696	diablo homolog, mitochondrial isoform 1 precursor	9845297	27	5	25	10
697	ubiquitin thioesterase OTUB2	12962939	27	4	18	10
698	NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 2 isoform 1	4505355	11	4	41	10
699	ADP-ribosylation factor-like protein 3	4757774	20	5	45	10
700	brain protein 44	219521872	14	4	39	10
701	midkine precursor	4505135	16	4	23	9
702	F-actin-capping protein subunit beta isoform 1	4826659	31	4	13	9
703	40S ribosomal protein S3	15718687	27	6	35	9
704	annexin A7 isoform 1	4502111	50	4	9.20	9
705	ras-related C3 botulinum toxin substrate 1 isoform Rac1b	9845509	23	5	21	9
706	adenylate kinase domain-containing protein 1 isoform 1	237858799	221	7	4.30	9
707	cystatin-B	4503117	11	2	34	9
708	spondin-2 precursor	6912682	36	3	7.60	9
709	tropomyosin alpha-3 chain isoform 2	24119203	29	4	20	9
710	ran-specific GTPase-activating protein	4506407	23	2	10.00	9
711	ATP synthase subunit delta, mitochondrial precursor	50345991	17	4	39	9
712	vitronectin precursor	88853069	54	3	8.60	9
713	40S ribosomal protein S15a	71772415	15	4	32	9
714	bifunctional ATP-dependent dihydroxyacetone kinase/FAD-AMP lyase (cyclizing)	20149621	59	4	11	9
715	pro-cathepsin H preproprotein	23110955	37	2	8.40	9
716	destrin isoform a	5802966	19	2	17	9
717	uncharacterized protein C9orf171	46409466	36	5	16	9
718	protein TSC21	22749357	21	2	13	9

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Supplementary Table 2: Contd...

No.	Protein	Gel 1				
		Accession number	Mass (kDa)	Peptides number	Sequence coverage (%)	Spectral counts
719	aflatoxin B1 aldehyde reductase member 2	41327764	40	4	16	9
720	ubiquitin carboxyl-terminal hydrolase 7	150378533	128	6	6.70	9
721	peptidyl-prolyl cis-trans isomerase F, mitochondrial precursor	5031987	22	4	35	9
722	3-mercaptopyruvate sulfurtransferase isoform 2	61835204	33	3	19	9
723	WD repeat-containing protein 65 isoform a	345199335	149	8	7.10	9
724	60S ribosomal protein L12	4506597	18	3	25	9
725	prenylated Rab acceptor protein 1	222144309	21	3	18	9
726	translocon-associated protein subunit delta isoform 3 precursor	325301078	20	3	24	9
727	dnaJ homolog subfamily B member 6 isoform b	4885495	27	2	12	9
728	beta-defensin 126 preproprotein	13624333	12	2	8.10	9
729	leucine-rich repeat-containing protein 23 isoform a	42542396	40	4	19	9
730	brain protein 44-like protein 2	306922396	15	3	34	9
731	apolipoprotein O precursor	13129148	22	3	19	9
732	tenascin precursor	153946395	241	6	3.70	9
733	kita-kyushu lung cancer antigen 1	63025190	13	2	19	9
734	peptidyl-prolyl cis-trans isomerase FKBP2 precursor	17149842	16	5	32	9
735	ubiquitin carboxyl-terminal hydrolase 14 isoform b	82880645	52	4	7.00	8
736	ferritin heavy chain	56682959	21	3	23	8
737	alcohol dehydrogenase class-3	71565154	40	4	11	8
738	inositol monophosphatase 1 isoform 2	221625487	37	3	13	8
739	calpain-1 catalytic subunit	311893363	82	5	8.00	8
740	lysosome membrane protein 2 isoform 1 precursor	5031631	54	4	14	8
741	apolipoprotein D precursor	4502163	21	4	21	8
742	26S proteasome non-ATPase regulatory subunit 6	7661914	46	4	13	8
743	glycerophosphodiester phosphodiesterase 1	7706617	38	4	19	8
744	NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 8	7657369	20	3	23	8
745	ADP-ribosyl cyclase 1	38454326	34	2	8.70	8
746	importin-4	62460637	119	5	5.80	8
747	60S ribosomal protein L7a	4506661	30	3	15	8
748	UTP--glucose-1-phosphate uridylyltransferase isoform b	48255968	56	4	10	8
749	dnaJ homolog subfamily C member 3 precursor	5453980	58	5	18	8
750	puromycin-sensitive aminopeptidase	158937236	103	4	2.70	8
751	60S ribosomal protein L18	4506607	22	3	13	8
752	cytochrome c oxidase subunit 7A2, mitochondrial precursor	262118227	13	3	22	8
753	nuclear pore complex protein Nup205	57634534	228	6	3.60	8
754	cytochrome b5 type B	83921614	17	3	17	8
755	protein FAM71A	282721094	63	4	8.40	8
756	dynein light chain 1, axonemal isoform 1	164607156	22	4	19	8
757	lipase member I	39752679	55	3	6.70	8
758	left-right determination factor 1 preproprotein	10337603	41	3	11	8
759	3-oxoacyl-[acyl-carrier-protein] synthase, mitochondrial isoform 1	8923559	49	3	15	8
760	glutathione S-transferase omega-2 isoform 1	38016131	28	5	22	8
761	myotrophin	21956645	13	3	43	8
762	thioredoxin domain-containing protein 17	14249348	14	3	27	8
763	ras-related protein Rab-6A isoform b	38679888	24	3	16	8
764	nucleosome assembly protein 1-like 1	4758756	45	3	13	8
765	actin-like protein 9	194097462	46	4	13	8
766	protein arginine N-methyltransferase 5 isoform a	20070220	73	5	9.70	8
767	deoxyuridine 5'-triphosphate nucleotidohydrolase, mitochondrial isoform 1 precursor	70906441	27	4	21	8
768	Sjogren syndrome nuclear autoantigen 1	189571687	14	4	27	8
769	NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit 8, mitochondrial precursor	4826854	22	3	21	8
770	voltage-dependent calcium channel subunit alpha-2/delta-2 isoform c	291290994	130	6	6.80	8
771	V-type proton ATPase subunit B, brain isoform	19913428	57	4	14	8
772	transcriptional activator protein Pur-alpha	5032007	35	3	15	8

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## Supplementary Table 2: Contd...

No.	Protein	Gel 1				
		Accession number	Mass (kDa)	Peptides number	Sequence coverage (%)	Spectral counts
773	peptidase inhibitor 15 preproprotein	7705676	29	4	19	8
774	integral membrane protein 2B	11527402	30	3	21	8
775	bovine seminal plasma protein homolog 1 precursor	190358548	16	3	25	8
776	succinyl-CoA ligase [ADP/GDP-forming] subunit alpha, mitochondrial	109452591	36	2	8.70	8
777	isovaleryl-CoA dehydrogenase, mitochondrial isoform 1 precursor	226958412	47	3	16	8
778	splicing factor 3A subunit 3	5803167	59	2	4.40	8
779	outer dense fiber protein 3B	116292180	27	3	12	8
780	ATP-citrate synthase isoform 1	38569421	121	6	6.40	7
781	UPF0577 protein KIAA1324 precursor	38569482	111	4	3.80	7
782	homogentisate 1,2-dioxygenase	115527117	50	4	16	7
783	proactivator polypeptide isoform a preproprotein	11386147	58	3	5.30	7
784	nucleophosmin isoform 1	10835063	33	3	24	7
785	gamma-glutamyl hydrolase precursor	4503987	36	3	17	7
786	transmembrane emp24 domain-containing protein 2 precursor	5803149	23	2	18	7
787	fumarylacetoacetate hydrolase domain-containing protein 2B	40786394	35	3	21	7
788	ferritin light chain	20149498	20	3	23	7
789	60S ribosomal protein L14	78000181	23	3	16	7
790	proteasome activator complex subunit 4	163644283	211	6	3.50	7
791	NADH-cytochrome b5 reductase 3 isoform 2	193794826	32	3	17	7
792	nucleosome assembly protein 1-like 4	5174613	43	3	9.60	7
793	transketolase-like protein 1 isoform b	225637461	65	3	6.40	7
794	UPF0740 protein C1orf192	63029930	19	4	27	7
795	ATP synthase subunit epsilon, mitochondrial	5901896	6	3	45	7
796	sperm-associated antigen 16 protein isoform 1	70909324	71	5	10	7
797	dipeptidase 1 precursor	4758190	46	3	13	7
798	EF-hand calcium-binding domain-containing protein 1 isoform a	13375787	24	3	23	7
799	BAG family molecular chaperone regulator 5 isoform b	6631077	51	4	16	7
800	HD domain-containing protein 2	116875826	23	3	24	7
801	dihydropteridine reductase	208973246	26	3	23	7
802	heterogeneous nuclear ribonucleoprotein K isoform b	14165435	51	4	13	7
803	SPARC-related modular calcium-binding protein 2 isoform 1 precursor	24308277	51	3	12	7
804	synaptogyrin-2	4759202	25	3	13	7
805	glycyl-tRNA synthetase precursor	116805340	83	4	8.40	7
806	BAG family molecular chaperone regulator 2	4757834	24	3	20	7
807	protein FAM162A	49355721	17	2	20	7
808	PREDICTED: hypothetical protein LOC728597	341914388	72	4	6.70	7
809	aminoacyl tRNA synthase complex-interacting multifunctional protein 1 isoform b precursor	215490011	37	3	17	7
810	protein DPCD	39930355	23	3	15	7
811	transmembrane protein 205	63055043	21	2	16	7
812	thiosulfate sulfurtransferase/rhodanese-like domain-containing protein 1 isoform 1	163965377	13	3	21	7
813	ethanolamine-phosphate cytidyltransferase isoform 1	296841136	46	3	14	7
814	ubiquitin-conjugating enzyme E2 L3	4507789	18	3	30	7
815	desmoglein-1 preproprotein	119703744	114	6	9.70	7
816	mannosyl-oligosaccharide glucosidase isoform 1	149999606	92	3	4.70	7
817	uncharacterized protein C9orf135	58219541	26	3	21	7
818	high mobility group protein B2	194688133	24	3	19	7
819	cysteine desulfurase, mitochondrial isoform a	32307132	50	4	14	7
820	ATP synthase-coupling factor 6, mitochondrial isoform a precursor	18644883	13	3	46	7
821	nucleobindin-1 precursor	20070228	54	3	12	7
822	mitochondrial fission 1 protein	151108473	17	3	26	7
823	azurocidin preproprotein	11342670	27	2	9.60	6
824	calicin	169636428	67	3	6.10	6
825	exportin-2	29029559	110	3	4.60	6
826	60S acidic ribosomal protein P1 isoform 1	4506669	12	2	57	6

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Supplementary Table 2: Contd...

No.	Gel 1					
	Protein	Accession number	Mass (kDa)	Peptides number	Sequence coverage (%)	Spectral counts
827	cytochrome b5 isoform 1	41281768	15	3	36	6
828	phosphate carrier protein, mitochondrial isoform b precursor	47132595	40	2	5.50	6
829	60S ribosomal protein L11 isoform 1	15431290	20	2	13	6
830	beta-hexosaminidase subunit beta preproprotein	4504373	63	4	9.50	6
831	platelet-activating factor acetylhydrolase IB subunit beta isoform a	4505585	26	2	12	6
832	thioredoxin domain-containing protein 2 isoform 2	148727319	60	3	4.90	6
833	60S ribosomal protein L7	15431301	29	4	18	6
834	matrilin-2 isoform a precursor	62548860	107	3	4.40	6
835	glyoxylate reductase/hydroxypyruvate reductase	6912396	36	3	15	6
836	72 type IV collagenase isoform a preproprotein	11342666	74	2	5.00	6
837	antileukoproteinase precursor	4507065	14	2	15	6
838	trafficking protein particle complex subunit 3	7656926	20	2	13	6
839	tripeptidyl-peptidase 1 preproprotein	5729770	61	4	14	6
840	transketolase-like protein 2	133778974	68	2	5.60	6
841	dynein heavy chain 12, axonemal isoform 1	194440727	357	2	1.00	6
842	mitochondrial dicarboxylate carrier	20149598	31	4	19	6
843	biglycan preproprotein	4502403	42	3	7.60	6
844	prostate and testis expressed protein 2 precursor	47086459	13	2	27	6
845	chloride intracellular channel protein 4	7330335	29	3	13	6
846	protein CutA isoform 1	62198241	21	2	21	6
847	prohibitin-2 isoform 2	6005854	33	3	13	6
848	glutathione S-transferase Mu 1 isoform 1	23065544	26	2	14	6
849	tubulin polymerization-promoting protein family member 2	226491350	19	3	32	6
850	probable inactive serine protease 37 isoform 1 precursor	285394164	26	2	8.90	6
851	sperm-associated antigen 11B isoform A preproprotein	7706551	11	2	19	6
852	putative peptidyl-tRNA hydrolase PTRHD1	61966781	16	3	25	6
853	ras-related protein Rab-5B isoform 1	354725902	24	2	18	6
854	lysosomal Pro-X carboxypeptidase isoform 1 preproprotein	4826940	56	2	7.30	6
855	NADH dehydrogenase [ubiquinone] iron-sulfur protein 4, mitochondrial precursor	4505369	20	2	14	6
856	UPF0587 protein C1orf123	8923541	18	2	25	6
857	syntaxin-12	28933465	32	3	14	6
858	6-phosphogluconolactonase	6912586	28	3	21	6
859	agouti-related protein precursor	4501995	14	2	14	6
860	major prion protein preproprotein	122056623	28	2	9.50	6
861	dolichyl-diphosphooligosaccharide--protein glycosyltransferase subunit DAD1	4503253	12	2	19	6
862	non-specific lipid-transfer protein isoform 1 proprotein	19923233	59	2	3.50	6
863	V-type proton ATPase subunit d 1	19913432	40	2	6.80	6
864	transmembrane emp24 domain-containing protein 1 precursor	5803040	25	2	11	6
865	ADP-ribosylation factor 6	4502211	20	2	12	6
866	endoplasmic reticulum lectin 1 isoform 2 precursor	188528696	52	4	19	6
867	alpha-galactosidase A precursor	4504009	49	2	7.00	6
868	V-type proton ATPase subunit E 1 isoform a	4502317	26	2	12	6
869	uncharacterized protein C19orf18 precursor	22748999	24	2	9.80	6
870	ADP-ribosylation factor-like protein 8B	8922601	22	2	18	6
871	secretoglobin family 1D member 2 precursor	5729909	10	2	22	6
872	uncharacterized protein C22orf43	56118955	25	2	9.60	6
873	60S ribosomal protein L31 isoform 3	153252132	14	2	19	6
874	iron-sulfur cluster assembly enzyme ISCU, mitochondrial isoform ISCU2 precursor	56699456	18	2	10	6
875	40S ribosomal protein S24 isoform a	14916501	15	2	21	6
876	retinoic acid receptor responder protein 1 isoform 2 precursor	46255041	26	2	9.60	6
877	phenylalanyl-tRNA synthetase alpha chain	4758340	58	3	12	6
878	fibrinogen-like protein 1 precursor	42544189	36	2	7.40	6
879	titin isoform N2-A	291045225	3713	3	0.06	5
880	glycerol-3-phosphate dehydrogenase 1-like protein	24307999	38	2	6.00	5

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**Supplementary Table 2: Contd...**

No.	Protein	Gel 1				
		Accession number	Mass (kDa)	Peptides number	Sequence coverage (%)	Spectral counts
881	complement decay-accelerating factor isoform 2 precursor	168693643	49	3	9.10	5
882	beta-microseminoprotein isoform a precursor	4557036	13	3	18	5
883	cathepsin D preproprotein	4503143	45	3	12	5
884	CD63 antigen isoform A	4502679	26	2	5.00	5
885	cystatin-S precursor	4503109	16	3	28	5
886	lysosome-associated membrane glycoprotein 2 isoform C precursor	169790833	45	2	4.10	5
887	spectrin alpha chain, brain isoform 2	154759259	285	3	1.90	5
888	phospholipase A1 member A isoform 2 precursor	332688256	48	2	7.30	5
889	UPF0468 protein C16orf80	8392875	23	3	19	5
890	sperm-associated antigen 11B isoform D preproprotein	126131097	15	2	17	5
891	acyl-protein thioesterase 1	5453722	25	3	21	5
892	S-adenosylmethionine synthase isoform type-2	5174529	44	2	6.60	5
893	filaggrin-2	62122917	248	3	2.80	5
894	spermatogenesis-associated protein 19, mitochondrial precursor	28376652	19	3	26	5
895	thioredoxin-dependent peroxide reductase, mitochondrial isoform b	32483377	26	3	16	5
896	zona pellucida-binding protein 2 isoform 1 precursor	84875535	36	2	7.90	5
897	cytosolic 5'-nucleotidase 1B isoform 4	312283642	71	2	3.00	5
898	renin receptor precursor	15011918	39	3	13	5
899	sialidase-1 precursor	4557791	45	2	12	5
900	60S ribosomal protein L13a	6912634	24	2	10	5
901	15 selenoprotein isoform 1 precursor	42741648	18	3	17	5
902	proteasome activator complex subunit 2	30410792	27	2	13	5
903	guanine nucleotide-binding protein subunit beta-2-like 1	5174447	35	2	8.50	5
904	vesicle-trafficking protein SEC22b precursor	94429050	25	2	11	5
905	coiled-coil-helix-coiled-coil-helix domain-containing protein 6	14150134	26	3	23	5
906	S-phase kinase-associated protein 1 isoform b	25777713	19	3	18	5
907	metaxin-2	5729937	30	2	8.00	5
908	prostate and testis expressed protein 4	221554530	11	3	30	5
909	secreted frizzled-related protein 1 precursor	56117838	35	3	12	5
910	protein EAN57 isoform 1	255759947	31	2	6.80	5
911	minor histocompatibility antigen H13 isoform 1	23308607	41	2	9.50	5
912	ATP synthase subunit s, mitochondrial isoform a precursor [Homo	51558774	25	3	13	5
913	coiled-coil domain-containing protein 151	117553613	69	5	11	5
914	glypican-3 isoform 1 precursor	257471006	68	3	5.30	5
915	NADH dehydrogenase [ubiquinone] iron-sulfur protein 5	4758790	13	2	18	5
916	thioredoxin domain-containing protein 12 precursor	7705696	19	2	14	5
917	mitochondrial 2-oxoglutarate/malate carrier protein isoform 1	21361114	34	3	13	5
918	protein FAM3B isoform a precursor	46255030	26	2	8.10	5
919	astrocytic phosphoprotein PEA-15	4505705	15	2	17	5
920	coiled-coil domain-containing protein 42A isoform 1	226494053	38	2	11	5
921	uncharacterized protein C7orf72	332634960	50	2	9.80	5
922	cornulin	7706635	54	2	5.10	5
923	glutaredoxin-3	95113651	37	3	19	5
924	arrestin domain-containing protein 5	122937478	38	3	11	5
925	mimitin, mitochondrial	29789409	20	2	24	5
926	protein-tyrosine phosphatase mitochondrial 1 isoform 1	148224884	23	3	21	5
927	DAZ-associated protein 1 isoform b	25470886	43	3	14	5
928	60S ribosomal protein L26	4506621	17	3	21	5
929	coiled-coil domain-containing protein 90B, mitochondrial precursor	20149663	30	2	15	5
930	maleylacetoacetate isomerase isoform 1	22202624	24	2	10	5
931	uncharacterized protein C2orf61 isoform 1	254675143	28	2	13	5
932	sphingomyelin phosphodiesterase 4 isoform 2	102467481	98	3	4.30	5
933	gelsolin isoform a precursor	4504165	86	2	3.60	4
934	UPF0556 protein C19orf10 precursor	33457348	19	2	12	4
935	profilin-2 isoform a	16753215	15	2	21	4

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Supplementary Table 2: Contd...

No.	Protein	Accession number	Mass (kDa)	Peptides number	Sequence coverage (%)	Spectral counts
936	elongation factor 1-beta	4503477	25	2	24	4
937	ras-related protein Rap-1b isoform 1 precursor	7661678	21	2	13	4
938	sarcoplasmic/endoplasmic reticulum calcium ATPase 2 isoform b	24638454	115	3	3.90	4
939	dynactin subunit 3 isoform 1	6005745	21	2	9.10	4
940	carnitine O-palmitoyltransferase 1, muscle isoform isoform a	223468678	88	4	3.60	4
941	acid sphingomyelinase-like phosphodiesterase 3b isoform 1 precursor	57242798	51	2	5.70	4
942	izumo sperm-egg fusion protein 1 precursor	194097475	39	2	9.10	4
943	14 phosphohistidine phosphatase isoform 3	24475861	14	2	26	4
944	fatty-acid amide hydrolase 1	166795287	63	2	7.80	4
945	aquaporin-5	4502183	28	2	9.80	4
946	protein NDRG3 isoform a	14165266	41	3	15	4
947	low molecular weight phosphotyrosine protein phosphatase isoform c	4757714	18	2	17	4
948	nucleoside diphosphate kinase 7 isoform a	7019465	42	2	6.60	4
949	protein OS-9 isoform 1 precursor	5803109	76	2	4.90	4
950	protamine-2	68989267	13	2	27	4
951	calcium-binding mitochondrial carrier protein Aralar1	21361103	75	2	3.70	4
952	transducin beta-like protein 2 precursor	7549793	50	2	6.90	4
953	dickkopf-like protein 1 isoform 2 precursor	308818218	24	3	15	4
954	thioredoxin-like protein 1	4759274	32	2	10	4
955	growth hormone-inducible transmembrane protein	118200356	37	2	6.40	4
956	thiamine-triphosphatase	13236577	26	2	12	4
957	beta-defensin 105 precursor	103485141	9	2	27	4
958	ubiquitin-conjugating enzyme E2 N	4507793	17	2	17	4
959	septin-4 isoform 3	17986247	53	2	5.00	4
960	eukaryotic translation initiation factor 3	23397429	43	2	13	4
961	actin-related protein 2/3 complex subunit 4 isoform c	311771647	22	2	18	4
962	electron transfer flavoprotein-ubiquinone oxidoreductase, mitochondrial precursor	119703746	68	2	5.20	4
963	calcium-regulated heat stable protein 1	109715858	16	2	18	4
964	glutaminyl-peptide cyclotransferase precursor	6912618	41	2	13	4
965	SPRY domain-containing protein 7 isoform 1	20531765	22	2	13	4
966	coiled-coil domain-containing protein 164	217416374	87	4	6.20	4
967	uncharacterized protein C19orf71	207442677	24	2	14	4
968	UPF0573 protein C2orf70	157502167	23	2	17	4
969	tissue alpha-L-fucosidase precursor	119360348	54	2	6.00	4
970	4F2 cell-surface antigen heavy chain isoform c	65506891	68	2	4.10	4
971	protein transport protein Sec61 subunit beta	5803165	10	2	26	4
972	rhabdoid tumor deletion region protein 1	7657530	39	3	16	4
973	serine/threonine-protein phosphatase 6 catalytic subunit isoform a	183603929	39	2	8.20	4
974	procollagen-lysine, 2-oxoglutarate 5-dioxygenase 1 precursor	32307144	84	2	3.20	4
975	ubiquitin-conjugating enzyme E2 variant 1 isoform d	73765546	16	2	14	4
976	intraflagellar transport protein 27 homolog isoform 2	6857824	20	2	13	4
977	prefoldin subunit 2	12408675	17	2	17	4
978	COP9 signalosome complex subunit 7b	12232385	30	2	9.10	4
979	eukaryotic translation initiation factor 3 subunit B	33239445	92	3	4.40	4
980	carboxylesterase 5A isoform 1 precursor	219521907	64	2	5.40	4
981	protein lin-7 homolog A	4759306	26	4	20	4
982	heat shock protein beta-11	118343647	16	2	28	4
983	abhydrolase domain-containing protein 16A isoform a	15100151	63	2	5.40	4
984	tumor protein p53-inducible protein 11	33695117	21	2	13	4
985	synaptosomal-associated protein 29	4759154	29	2	8.50	4
986	cob (I) yrinic acid a, c-diamide adenosyltransferase, mitochondrial precursor	16418349	27	2	10	4
987	selenoprotein P isoform 2	148277022	46	2	7.80	4
988	inactive serine protease 54 precursor	122937420	44	2	9.40	4
989	60S ribosomal protein L13 isoform 1	15431295	24	2	9.50	3
990	ubiquitin carboxyl-terminal hydrolase 5 isoform 2	148727247	93	2	4.60	3

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Supplementary Table 2: Contd...

No.	Protein	Accession number	Mass (kDa)	Peptides number	Sequence coverage (%)	Spectral counts
991	cysteine-rich secretory protein 2 precursor	215490018	27	2	4.90	3
992	40S ribosomal protein S11	4506681	18	2	9.50	3
993	eukaryotic translation initiation factor 3 subunit A	4503509	167	3	2.30	3
994	endoplasmic reticulum-Golgi intermediate compartment protein 1	72534712	33	3	17	3
995	retinol dehydrogenase 11 isoform 1 precursor	166795268	35	2	7.90	3
996	60S ribosomal protein L30	4506631	13	2	24	3
997	sperm flagellar protein 2 isoform 1	145699133	210	2	1.20	3
998	nicotinamide phosphoribosyltransferase precursor	5031977	56	2	10	3
999	retinal dehydrogenase 1	21361176	55	2	4.40	3
1000	sulfhydryl oxidase 1 isoform a precursor	13325075	83	3	4.70	3
1001	60S ribosomal protein L23	4506605	15	2	16	3
1002	dynein intermediate chain 1, axonemal	6912338	79	2	5.90	3
1003	S-formylglutathione hydrolase	33413400	31	2	16	3
1004	eukaryotic translation initiation factor 6 isoform a	4504771	27	2	13	3
1005	bifunctional purine biosynthesis protein PURH	20127454	65	2	7.10	3
1006	protein BRICK1	27544939	9	2	28	3
1007	60S ribosomal protein L22 proprotein	4506613	15	2	19	3
1008	dynein intermediate chain 2, axonemal isoform 1	217416452	69	2	3.80	3
1009	prostaglandin E synthase 3	23308579	19	2	20	3
1010	spermatid-associated protein	22749425	52	2	6.90	3
1011	cell cycle control protein 50A isoform 1	8922720	41	2	5.80	3
1012	neuropilin-1 isoform a precursor	182508169	103	3	5.60	3
1013	DNA damage-binding protein 1	148529014	127	2	2.50	3
1014	glutaminyl-tRNA synthetase	4826960	88	2	3.10	3
1015	solute carrier family 2, facilitated glucose transporter member 5 isoform 1	4507013	55	2	6.40	3
1016	26S proteasome non-ATPase regulatory subunit 5	4826952	56	2	5.60	3
1017	nodal modulator 3 precursor	51944969	134	2	2.00	3
1018	methylosome protein 50	13129110	37	3	11	3
1019	uncharacterized protein C2orf77	146260271	66	2	3.80	3
1020	cytochrome b5 domain-containing protein 1	40255060	27	3	21	3
1021	uncharacterized protein C2orf74 isoform 1	221139892	22	2	11	3
1022	COP9 signalosome complex subunit 7a	7705330	30	2	8.70	3
1023	centrin-1	4757974	20	3	19	3
1024	grpE protein homolog 1, mitochondrial precursor	24308295	24	2	10	3
1025	cysteine--tRNA ligase, cytoplasmic isoform c	62240992	95	2	3.20	3
1026	RIB43A-like with coiled-coils protein 2	241666448	45	3	11	3
1027	uncharacterized protein LOC145788	311771669	14	2	27	3
1028	mitochondrial import receptor subunit TOM40 homolog	5174723	38	2	16	3
1029	polypeptide N-acetylgalactosaminyltransferase 3	153266878	73	2	4.40	3
1030	protein disulfide-isomerase-like protein of the testis precursor	28372543	67	3	6.30	3
1031	tetraspanin-16 isoform 1	6912726	26	2	8.20	3
1032	peptidyl-prolyl cis-trans isomerase-like 6 isoform 1 [Homo	27735045	35	2	15	3
1033	GTP: AMP phosphotransferase AK3, mitochondrial isoform a [Homo	19923437	26	2	8.40	3
1034	ADP-ribosylation factor-like protein 1	4502227	20	2	15	3
1035	mitochondrial-processing peptidase subunit alpha isoform 1	24308013	58	2	7.20	3
1036	ectonucleotide pyrophosphatase/phosphodiesterase family member 3	111160296	100	2	4.10	2
1037	cytoskeleton-associated protein 4	19920317	66	2	4.20	2
1038	60S ribosomal protein L5	14591909	34	2	11	2
1039	membrane cofactor protein isoform 4 precursor	24432108	43	2	7.30	2
1040	PITH domain-containing protein 1	21361837	24	2	13	2
1041	UMP-CMP kinase isoform a	7706497	26	2	9.20	2
1042	NADPH--cytochrome P450 reductase	127139033	77	2	4.90%	2
1043	arylsulfatase A isoform a precursor	313569791	54	2	6.10%	2
1044	dehydrogenase/reductase SDR family member 7 precursor	7706318	38	2	9.70%	2
1045	disintegrin and metalloproteinase domain-containing protein 29 preproprotein	73765552	93	2	2.90%	2

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**Supplementary Table 2: Contd...**

<i>No.</i>	<i>Protein</i>	<i>Accession number</i>	<i>Mass (kDa)</i>	<i>Peptides number</i>	<i>Sequence coverage (%)</i>	<i>Spectral counts</i>
1046	aminoacyl tRNA synthase complex-interacting multifunctional protein 2	11125770	35	2	11%	2
1047	growth arrest-specific protein 8	4503917	56	2	3.80%	2
1048	uncharacterized protein LOC100130705	304376316	20	2	12%	2
1049	40S ribosomal protein S13	4506685	17	2	19%	2
1050	lon protease homolog, mitochondrial	21396489	106	2	2.60%	2
1051	UBX domain-containing protein 6 isoform 1	13376854	50	2	11%	2
1052	translocation protein SEC63 homolog	6005872	88	2	2.60%	2
1053	beta-mannosidase precursor	84798622	101	2	2.50%	2
1054	ubiquitin-like-conjugating enzyme ATG3	19526773	36	2	8.90%	2
1055	transmembrane protein 209	66348165	63	2	7.70%	2