

Appendix 1

Shotgun proteomics results from 4.5-day old larval zebrafish lenses. Rank lists the order of abundance. Spectral count indicates the number of times a peptide from the parent protein was detected in the sample and was used to generate the rank order.

Rank	Spec count	IPI	Protein
1	159	IPI00861740.1	β B1 crystallin
2	128	IPI00607401.3	LOC553473 (" β B1b crystallin")
3	110	IPI00859087.1	zgc:171773 (" β B1c crystallin")
4	94	IPI00504818.3	β A1 crystallin, like (" β A1d")
5	90	IPI00495773.1	γ N2 crystallin
6	77	IPI00607474.1	zgc:110021 (" γ MXc crystallin")
7	50	IPI00495820.1	β A2-1 crystallin
8	50	IPI00513173.2	β A2-2 crystallin
9	48	IPI00490966.2	β A4 crystallin
10	47	IPI00503999.3	β A1b crystallin
11	42	IPI00864931.1	γ MX crystallin
12	39	IPI00833949.1	zgc:171791 (" γ M2d12 crystallin")
13	31	IPI00502160.1	zgc:92692 (" γ M2d13 crystallin")
14	31	IPI00489320.1	Calpain 3
15	31	IPI00835330.1	LOC799807 (" γ 2d9 crystallin")
16	27	IPI00863220.1	zgc:171792 (" γ 2d14 crystallin")
17	21	IPI00487422.2	γ M2d8 crystallin
18	20	IPI00774533.1	zgc:92724 (" γ 2d15 crystallin")
19	18	IPI00512240.1	Elongation factor 1-alpha
20	16	IPI00505091.2	Valosin-containing protein
21	14	IPI00510181.2	Ribosomal protein S27a
22	12	IPI00493174.1	Nucleoside diphosphate kinase
23	12	IPI00493658.2	Ribosomal protein S2
24	11	IPI00489853.1	Ribosomal protein S10
25	11	IPI00607433.4	zgc:153846 (" γ M1b crystallin")
26	11	IPI00859358.1	zgc:171758 (" γ 2d10 crystallin")
27	10	IPI00491568.2	Ribosomal protein L23a
28	10	IPI00509939.2	α A crystallin
29	10	IPI00852136.2	Heat shock protein 8
30	8	IPI00510668.3	40s ribosomal protein S3a
31	7	IPI00482295.2	β Actin
32	7	IPI00607319.3	Major intrinsic protein of lens fiber 2
33	7	IPI00481422.1	Cellular nucleic acid-binding protein
34	6	IPI00481307.1	Ribosomal protein L7a
35	6	IPI00498510.1	Transketolase
36	6	IPI00488901.1	Tubulin α 2
37	6	IPI00502862.1	Ribosomal protein L21
38	6	IPI00500253.1	60s ribosomal protein L10a
39	5	IPI00505526.1	Ribosomal protein L4
40	5	IPI00507986.1	Ribosomal protein S3
41	5	IPI00734993.1	ATP synthase subunit β
42	5	IPI00860721.1	Unknown protein (similar to polo-like kinase)
43	5	IPI00481915.2	60S ribosomal protein S2
44	5	IPI00482129.1	Tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein β
45	4	IPI00484294.4	Keratin 5, type II
46	4	IPI00505170.3	Ribosomal protein L8
47	4	IPI00632292.1	Ribosomal protein L13a
48	4	IPI00503886.1	γ M2c crystallin
49	4	IPI00485872.1	Major intrinsic protein of lens fiber 1
50	4	IPI00511925.3	Ribosomal protein L3

51	4	IPI00492852.1	Ribosomal protein L30
52	4	IPI00505672.3	40S ribosomal protein S8
53	4	IPI00491519.4	Ribosomal protein L22-like
54	4	IPI00494039.2	Tubulin β 2B
55	4	IPI00486495.1	Histone H2A-like
56	3	IPI00500626.3	60S ribosomal protein L13
57	3	IPI00489287.1	Ribosomal protein S19
58	3	IPI00868226.1	Unknown protein
59	3	IPI00497774.1	Peptidyl-prolyl cis-trans isomerase
60	3	IPI00497388.2	Creatine Kinase, brain
61	3	IPI00509732.5	Ribosomal protein L12
62	2	IPI00501378.1	60S ribosomal protein L19
63	2	IPI00503128.2	β A1c crystallin, predicted (" β A1c crystallin")
64	2	IPI00494173.1	Eukaryotic translation elongation factor 1 γ
65	2	IPI00495274.2	SERPINE1 mRNA binding protein 1
66	2	IPI00509073.1	Nascent polypeptide-associated complex α
67	2	IPI00486130.1	Ribosomal protein L28-like
68	2	IPI00490609.1	Unknown protein
69	2	IPI00500325.1	60S ribosomal protein L36
70	2	IPI00492036.3	40S ribosomal protein s11
71	2	IPI00490551.3	60S ribosomal protein L27
72	2	IPI00513071.1	Ribosomal protein S29
73	2	IPI00507097.1	Guanine nucleotide-binding protein subunit β -2-like
74	2	IPI00481155.2	60S ribosomal protein L23
75	2	IPI00487430.1	Ribosomal protein S9
76	2	IPI00508365.2	Phosphoglycerate kinase
77	2	IPI00496824.1	Ribosomal protein S27
78	2	IPI00511724.1	Thimet oligopeptidase 1
79	2	IPI00618014.2	Hypothetical protein LOC792002 (rhomboid family)
80	1	IPI00500824.5	Ribosomal protein L7
81	1	IPI00502356.1	zgc:65996 (part of ribosome)
82	1	IPI00497691.1	Ribosomal protein L27a-like
83	1	IPI00493885.5	$\beta\gamma$ X crystallin
84	1	IPI00492664.2	Ribosomal protein S20
85	1	IPI00499105.2	60S ribosomal protein L24
86	1	IPI00500680.1	Ribosomal protein L38
87	1	IPI00496337.3	Novel protein similar to type I cytokeratin, enveloping layer
88	1	IPI00493144.3	40S ribosomal protein S4x
89	1	IPI00613363.2	Cofactor required for Sp1 transcriptional activation 2
90	1	IPI00487987.1	Ribosomal protein S14
91	1	IPI00630080.5	Similar to activated T-cell marker CD109
92	1	IPI00481801.2	Similar to histone cluster 2
93	0	IPI00486384.5	γ M2d7 crystallin
94	0	IPI00482809.3	Histone H4
95	0	IPI00864009.1	p21-activated kinase 4
96	0	IPI00503167.2	Interferon regulatory factor 8
97	0	IPI00505165.3	Similar to Probable ATP-dependent RNA helicase DDX6
98	0	IPI00506837.2	Zinc finger protein 292
99	0	IPI00650487.3	Novel protein similar to vertebrate perilipin
100	0	IPI00832600.1	Similar to SNF2 domain/helicase domain/RING finger domain-containing protein
101	0	IPI00509462.1	Ribosomal protein S30
102	0	IPI00484854.3	Similar to transketolase
103	0	IPI00485369.4	Similar to ring finger protein 145
104	0	IPI00508331.2	Ribosomal protein S15a
105	0	IPI00774408.2	im:7158730

106 0 IPI00615483.4 Titin A