

Supplemental Table 3A. iTRAQ ratios for a list of 30 retina proteins which were up-regulated in myopic eyes as compared to control eyes. Thirteen retina proteins (yellow highlighted) responded to atropine treatment (see also Figure 5A).

N	Accession #	Protein Name	iTRAQ Ratio (Myopia vs Control) Mean $\pm$ SD	iTRAQ Ratio (Treat vs Control) Mean $\pm$ SD
1	IPI:IPI00113143.1	Gene_Symbol=2010107E04Rik 6.8 kDa mitochondrial proteolipid	2.34 $\pm$ 1.45	1.06 $\pm$ NA
2	IPI:IPI00122048.2	Gene_Symbol=Atp1a3 Sodium/potassium-transporting ATPase subunit alpha-3	2.18 $\pm$ 0.07	0.45 $\pm$ 0.38
3	IPI:IPI00313475.1	Gene_Symbol=Atp5c1 ATP synthase subunit gamma, mitochondrial	1.77 $\pm$ 0.12	1.17 $\pm$ NA
4	IPI:IPI00670114.1	Gene_Symbol=Cadps Isoform 4 of Calcium-dependent secretion activator 1	2.22 $\pm$ 0.87	0.91 $\pm$ 0.46
5	IPI:IPI00169916.11	Gene_Symbol=Cltc Clathrin heavy chain 1	2.82 $\pm$ 0.19	0.72 $\pm$ 0.06
6	IPI:IPI00125899.1	Gene_Symbol=Ctnnb1 Catenin beta-1	2.54 $\pm$ 0.06	2.56 $\pm$ 0.7
7	IPI:IPI00653307.1	Gene_Symbol=Ddx17 probable ATP-dependent RNA helicase DDX17 isoform 1	2.33 $\pm$ 1.3	0.93 $\pm$ NA
8	IPI:IPI00420363.2	Gene_Symbol=Ddx5 Probable ATP-dependent RNA helicase DDX5	2.08 $\pm$ 0.47	NA $\pm$ NA
9	IPI:IPI00339468.4	Gene_Symbol=Dhx9 Isoform 2 of ATP-dependent RNA helicase A	2.07 $\pm$ 0.28	1.07 $\pm$ NA
10	IPI:IPI00119876.1	Gene_Symbol=Dync1h1 Cytoplasmic dynein 1 heavy chain 1	2.25 $\pm$ 0.37	1.48 $\pm$ 0.14
11	IPI:IPI00116804.1	Gene_Symbol=Eif2b2 Translation initiation factor eIF-2B subunit beta	3.13 $\pm$ 3.26	2.86 $\pm$ 2.88
12	IPI:IPI00462873.3	Gene_Symbol=Epb4.1 Isoform 2 of Protein 4.1	1.79 $\pm$ 0.40	0.56 $\pm$ 0.30
13	IPI:IPI00330289.3	Gene_Symbol=Epb4.1l2 band 4.1-like protein 2	1.94 $\pm$ 0.57	0.56 $\pm$ 0.15
14	IPI:IPI00230264.5	Gene_Symbol=H2afx Histone H2A.x	1.77 $\pm$ 0.04	3.43 $\pm$ 5.64
15	IPI:IPI00828488.1	Gene_Symbol=Hnrnpa2b1 Isoform 1 of Heterogeneous nuclear ribonucleoproteins A2/B1	2.01 $\pm$ 0.22	0.53 $\pm$ 0.28
16	IPI:IPI00226073.2	Gene_Symbol=Hnrnpf Isoform 1 of Heterogeneous nuclear ribonucleoprotein F	1.89 $\pm$ 0.64	NA $\pm$ NA
17	IPI:IPI00132443.3	Gene_Symbol=Hnrnmp Isoform 1 of Heterogeneous nuclear ribonucleoprotein M	2.38 $\pm$ 0.22	0.83 $\pm$ 0.02
18	IPI:IPI00480357.6	Gene_Symbol=Hnrnmp Isoform 2 of Heterogeneous nuclear ribonucleoprotein M	2.07 $\pm$ 0.03	1.19 $\pm$ 0.13
19	IPI:IPI00458583.3	Gene_Symbol=Hnrnpu Heterogeneous nuclear ribonucleoprotein U	2.45 $\pm$ 0.06	1.47 $\pm$ 1.5
20	IPI:IPI00776384.1	Gene_Symbol=Ilf3 Nuclear factor 90	2.04 $\pm$ 0.28	1 $\pm$ 0.22
21	IPI:IPI00751369.1	Gene_Symbol=Ldha L-lactate dehydrogenase A chain isoform 2	2.1 $\pm$ 0.11	0.3 $\pm$ 0.10
22	IPI:IPI00226891.1	Gene_Symbol=Myef2 Isoform 1 of Myelin expression factor 2	2.15 $\pm$ 0.45	0.78 $\pm$ 0.07
23	IPI:IPI00656325.2	Gene_Symbol=Nsf Vesicle-fusing ATPase	2.13 $\pm$ 0.93	0.51 $\pm$ 0.07
24	IPI:IPI00310091.8	Gene_Symbol=Ppp2r1a Serine/threonine-protein phosphatase 2A 65 kDa regulatory subunit A alpha isoform	1.70 $\pm$ 0.24	0.74 $\pm$ NA
25	IPI:IPI00114667.1	Gene_Symbol=Psmc7 26S proteasome non-ATPase regulatory subunit 7	1.90 $\pm$ 0.64	1.54 $\pm$ 0.27
26	IPI:IPI00111412.3	Gene_Symbol=Rpl4 60S ribosomal protein L4	1.91 $\pm$ 0.67	0.87 $\pm$ 0.34
27	IPI:IPI00227928.3	Gene_Symbol=Slc6a1 Sodium- and chloride-dependent GABA transporter 1	1.99 $\pm$ 0.42	0.69 $\pm$ 0.35

28	IPI:IPI00415402.3	Gene_Symbol=Stxbp1 Isoform 1 of Syntaxin-binding protein 1	1.91±0.00	0.32±0.14
29	IPI:IPI00117352.1	Gene_Symbol=Tubb5 Tubulin beta-5 chain	2.20±1.11	NA±NA
30	IPI:IPI00130264.1	Gene_Symbol=Uckl1 Uridine-cytidine kinase-like 1	1.72±0.09	2.01±NA

Supplemental Table 3B. iTRAQ ratios for a list of 28 retina proteins which were down-regulated in myopic eyes as compared to control eyes. Ten retina proteins (yellow highlighted) responded to atropine treatment (see also Figure 5B).

N	Accession #	Protein Name	iTRAQ Ratio (Myopia vs Control) Mean $\pm$ SD	iTRAQ Ratio (Treat vs Control) Mean $\pm$ SD
1	IPI:IPI00955362.1	Gene_Symbol=Abpe androgen binding protein epsilon precursor	0.47 $\pm$ 0.09	0.98 $\pm$ 0.66
2	IPI:IPI00134961.1	Gene_Symbol=Acadm Medium-chain specific acyl-CoA dehydrogenase, mitochondrial	0.57 $\pm$ 0.01	1.01 $\pm$ 0.08
3	IPI:IPI00553798.2	Gene_Symbol=Ahnak AHNAK nucleoprotein isoform 1	0.24 $\pm$ 0.42	3.06 $\pm$ 5.99
4	IPI:IPI00317309.5	Gene_Symbol=Anxa5 Annexin A5	0.62 $\pm$ 0.09	3.03 $\pm$ 1.37
5	IPI:IPI00554894.2	Gene_Symbol=Anxa6 Annexin A6	0.51 $\pm$ 0.21	2 $\pm$ 0.47
6	IPI:IPI00120076.2	Gene_Symbol=Ckmt2 Creatine kinase S-type, mitochondrial	0.22 $\pm$ 0.15	2.59 $\pm$ 0.5
7	IPI:IPI00785410.1	Gene_Symbol=Cox5b Cytochrome c oxidase subunit 5B, mitochondrial	0.57 $\pm$ 0.14	0.86 $\pm$ 0.25
8	IPI:IPI00331692.1	Gene_Symbol=Dci 3,2-trans-enoyl-CoA isomerase, mitochondrial precursor	0.3 $\pm$ 0.08	1.37 $\pm$ 0.79
9	IPI:IPI00120187.3	Gene_Symbol=Fmod Fibromodulin	0.59 $\pm$ 0.11	0.87 $\pm$ 0.35
10	IPI:IPI00379634.2	Gene_Symbol=Gm5325 Uncharacterized protein	0.4 $\pm$ 0.08	0.5 $\pm$ 0.48
11	IPI:IPI00875986.1	Gene_Symbol=Gm5326;Gm6662 Androgen-binding protein (Fragment)	0.42 $\pm$ 0.01	1.47 $\pm$ NA
12	IPI:IPI00970097.1	Gene_Symbol=Gpd1 Uncharacterized protein	0.32 $\pm$ 0.36	4.74 $\pm$ NA
13	IPI:IPI00890906.1	Gene_Symbol=Gpmb transmembrane glycoprotein NMB precursor	0.49 $\pm$ 0.24	0.97 $\pm$ 1.6
14	IPI:IPI00555023.2	Gene_Symbol=Gstp1 Glutathione S-transferase P 1	0.55 $\pm$ 0.16	0.96 $\pm$ 0.25
15	IPI:IPI00318614.9	Gene_Symbol=Idh2 Isocitrate dehydrogenase [NADP], mitochondrial	0.59 $\pm$ 0.06	1.25 $\pm$ 0.62
16	IPI:IPI00230394.5	Gene_Symbol=Lmnb1 Lamin-B1	0.35 $\pm$ 0.21	1.85 $\pm$ 1.22
17	IPI:IPI00223377.1	Gene_Symbol=Mbp Isoform 4 of Myelin basic protein	0.32 $\pm$ 0.36	13.55 $\pm$ 23.47
18	IPI:IPI00896700.1	Gene_Symbol=Mtap1b microtubule-associated protein 1B	0.48 $\pm$ 0.14	0.83 $\pm$ 0.06
19	IPI:IPI00128345.2	Gene_Symbol=Ndufs6 NADH dehydrogenase [ubiquinone] iron-sulfur protein 6, mitochondrial	0.39 $\pm$ 0.25	1.61 $\pm$ NA
20	IPI:IPI00169925.2	Gene_Symbol=Ndufv2 Isoform 1 of NADH dehydrogenase [ubiquinone] flavoprotein 2, mitochondrial	0.53 $\pm$ 0.04	1.63 $\pm$ 0.93
21	IPI:IPI00321860.1	Gene_Symbol=Pdcl Phosducin-like protein	0.47 $\pm$ 0.2	0.84 $\pm$ 0.55
22	IPI:IPI00230706.5	Gene_Symbol=Pgam2 Phosphoglycerate mutase 2	0.19 $\pm$ 0.2	2.34 $\pm$ 1.34
23	IPI:IPI00118757.1	Gene_Symbol=Phpt1 14 kDa phosphohistidine phosphatase	0.51 $\pm$ 0.01	0.42 $\pm$ 0.16
24	IPI:IPI00222555.5	Gene_Symbol=S100a10 Protein S100-A10	0.36 $\pm$ 0.31	2.15 $\pm$ 3.9
25	IPI:IPI00229940.4	Gene_Symbol=Sag S-arrestin	0.51 $\pm$ 0.05	0.25 $\pm$ 0.08
26	IPI:IPI00230044.5	Gene_Symbol=Tpm3 Isoform 2 of Tropomyosin alpha-3 chain	0.58 $\pm$ 0.08	0.79 $\pm$ 0.42
27	IPI:IPI00350590.6	Gene_Symbol=Txnrd2 Uncharacterized protein	0.56 $\pm$ 0.05	0.98 $\pm$ 0.26
28	IPI:IPI00555000.2	Gene_Symbol=Uqcrb Cytochrome b-c1 complex subunit 7	0.41 $\pm$ 0.16	1.02 $\pm$ 0.19

Supplemental Table 3C. iTRAQ ratios for a list of retina proteins which were found to be no significant changes in myopic eyes as compared to control eyes, but showed either up-regulation (n =2) or down-regulation (n = 17) after atropine treatment (see also Figure 5C and 5D).

N	Accession #	Protein Name	iTRAQ Ratio (Myopia vs Control) Mean $\pm$ SD	iTRAQ Ratio (Treat vs Control) Mean $\pm$ SD
<b>Myopic vs control: no change, after atropine treatment: down-regulated</b>				
1	IPI:IPI00407692.3	Gene_Symbol=Atp6v1a Isoform 1 of V-type proton ATPase catalytic subunit A	1.26 $\pm$ 0.43	0.36 $\pm$ 0.13
2	IPI:IPI00116281.3	Gene_Symbol=Cct6a T-complex protein 1 subunit zeta	1.06 $\pm$ 0.16	0.52 $\pm$ 0.01
3	IPI:IPI00408176.2	Gene_Symbol=Csnk2a1;Gm10031 casein kinase II subunit alpha	1.22 $\pm$ 0.08	0.57 $\pm$ 0.03
4	IPI:IPI00830623.1	Gene_Symbol=Fus 53 kDa protein	1.21 $\pm$ 0.54	0.56 $\pm$ 0.02
5	IPI:IPI00120716.3	Gene_Symbol=Gnb1 Guanine nucleotide-binding protein G(I)/G(S)/G(T) subunit beta-1	1.14 $\pm$ 0.4	0.26 $\pm$ 0.18
6	IPI:IPI00762858.1	Gene_Symbol=Hk1 hexokinase-1 isoform HK1	0.9 $\pm$ 0.23	0.42 $\pm$ 0.04
7	IPI:IPI00553777.2	Gene_Symbol=Hnrnpa1 Putative uncharacterized protein	1.39 $\pm$ 0.24	0.38 $\pm$ 0.01
8	IPI:IPI00336874.1	Gene_Symbol=Hnrnpd Isoform 4 of Heterogeneous nuclear ribonucleoprotein D0	1.24 $\pm$ 0.13	0.39 $\pm$ 0.02
9	IPI:IPI00330804.4	Gene_Symbol=Hsp90aa1 Heat shock protein HSP 90-alpha	1.47 $\pm$ 0.14	0.31 $\pm$ 0.01
10	IPI:IPI00970385.1	Gene_Symbol=Impdh1 61 kDa protein	0.97 $\pm$ 0.12	0.47 $\pm$ 0.01
11	IPI:IPI00336324.11	Gene_Symbol=Mdh1 Malate dehydrogenase, cytoplasmic	1.01 $\pm$ 0.3	0.39 $\pm$ 0.06
12	IPI:IPI00123613.1	Gene_Symbol=Pacsin1 Protein kinase C and casein kinase substrate in neurons protein 1	1.18 $\pm$ 0.56	0.44 $\pm$ 0.03
13	IPI:IPI00471441.1	Gene_Symbol=Ptms Ptms protein	0.92 $\pm$ 0.34	0.47 $\pm$ 0.02
14	IPI:IPI00469317.4	Gene_Symbol=Sars Seryl-tRNA synthetase, cytoplasmic	0.81 $\pm$ 0.17	0.52 $\pm$ 0.06
15	IPI:IPI00124692.1	Gene_Symbol=Taldo1 Transaldolase	1.09 $\pm$ 0.5	0.52 $\pm$ 0.09
16	IPI:IPI00459493.5	Gene_Symbol=Tcp1 Isoform 1 of T-complex protein 1 subunit alpha	1.36 $\pm$ 0.36	0.56 $\pm$ 0.04
17	IPI:IPI00118384.1	Gene_Symbol=Ywhae 14-3-3 protein epsilon	0.91 $\pm$ 0.32	0.47 $\pm$ 0.01
<b>Myopic vs control: no change, after atropine treatment: up-regulated</b>				
1	IPI:IPI00121198.2	Gene_Symbol=Gtf2a1 Transcription initiation factor IIA subunit 1	1.08 $\pm$ 0.3	1.93 $\pm$ 0.06
2	IPI:IPI00222557.5	Gene_Symbol=S100b Protein S100-B	1.23 $\pm$ 0.07	2.7 $\pm$ 0.57