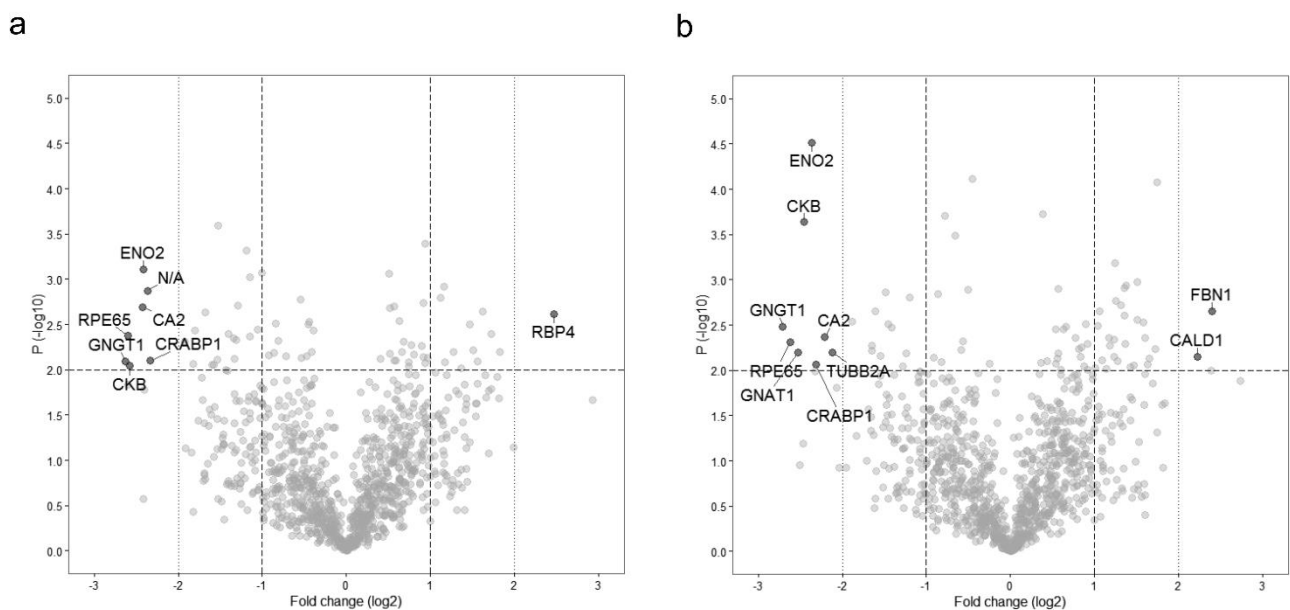
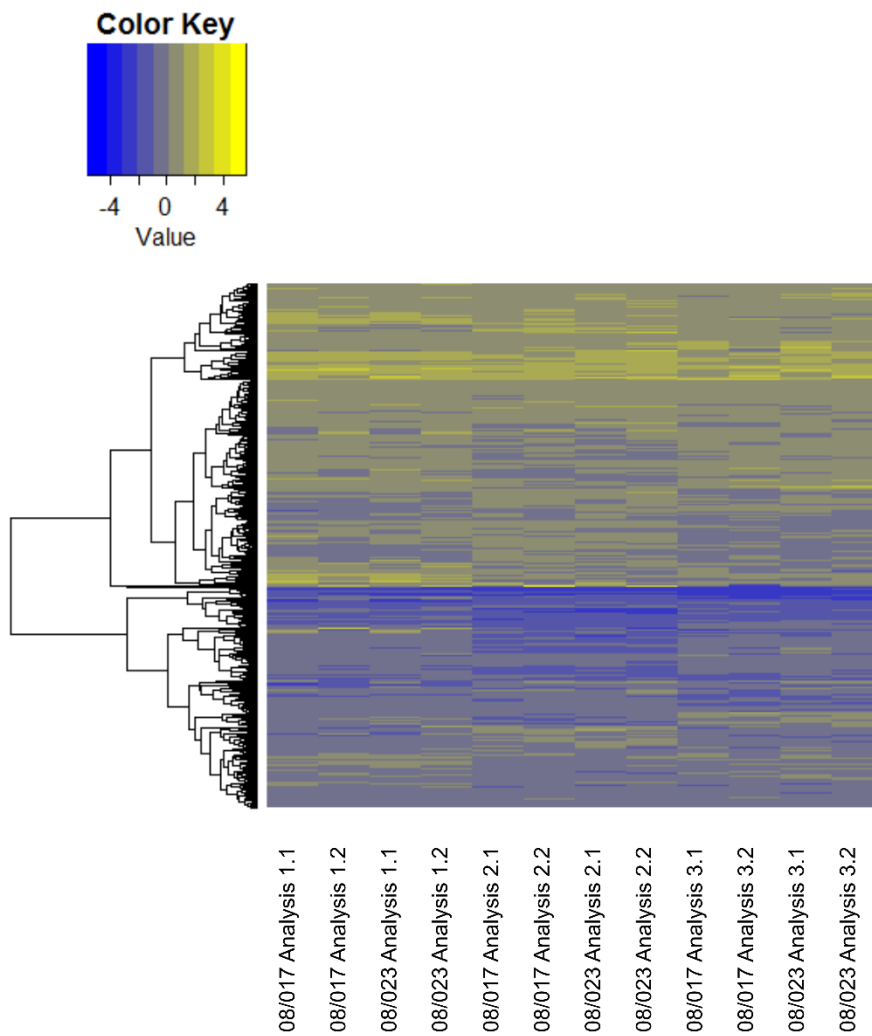


Comparative proteomic analysis of human embryonic stem cell-derived and primary human retinal pigment epithelium

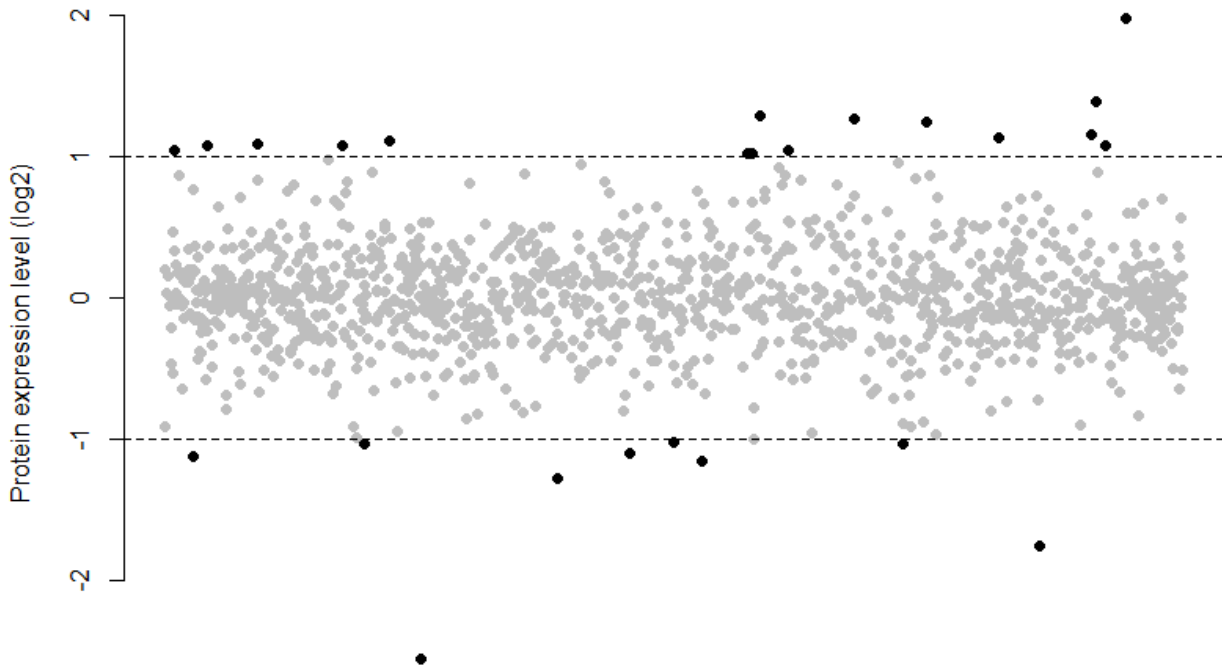
Heidi Hongisto, Antti Jylhä, Janika Nättinen, Jochen Rieck, Tanja Ilmarinen, Zoltán Veréb, Ulla Aapola, Roger Beuerman, Goran Petrovski, Hannu Uusitalo, Heli Skottman



Supplementary Figure S1. Volcano plots for a) 08/017 and b) 08/023 hESC-RPE protein expression compared to the hRPE. Fold change values on log₂ scale are shown on the x-axis with fold change of 1 equal to 2-fold difference in the expression (vertical dashed lines) and fold change of 2 equal to 4-fold difference in the expression (vertical dotted lines). Statistical significance (shown as negative log₁₀ of p-value) for the difference in the expression compared to hRPE for each protein is shown on the y-axis. Student's t-test was used to measure statistical significance and p-value of 0.01 equals to the horizontal dashed line. Average values for the technical replicates were used for the statistics. Proteins with highest expression differences (with a p-value <0.01 and fold difference >4) are labeled.

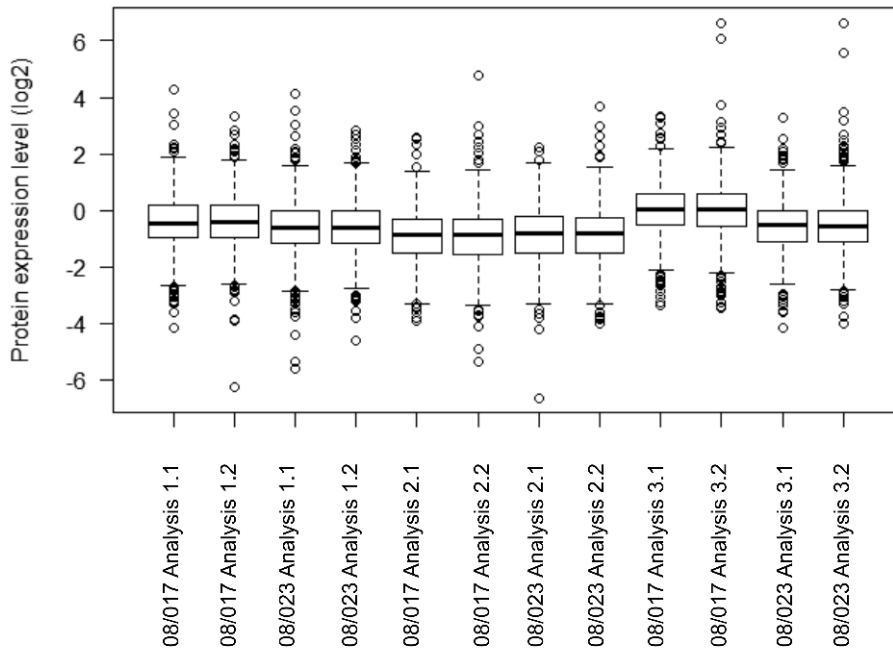


Supplementary Figure S2. A heat map showing differences in protein expression comparing the hESC-RPE samples to each of the hrPE donors showing all six technical replicates of the three MS analyses. Only proteins with complete reads (detected in all biological and technical replicates, n=431) are included in the heat map as gaps in the data would reduce readability. Log₂ scale is used for the fold changes. Proteins are clustered based on expression differences (left).

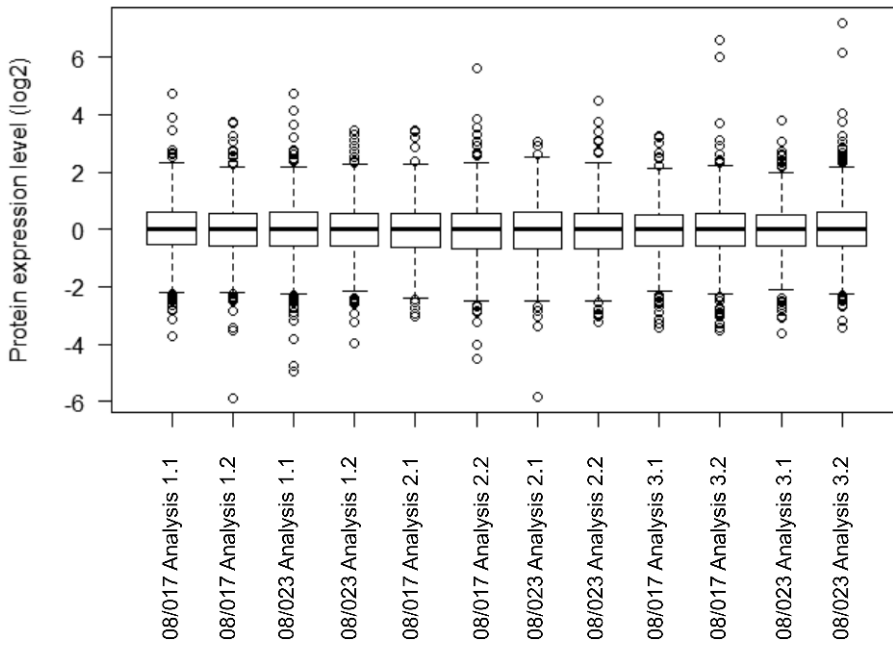


Supplementary Figure S3. A scatter plot showing expression levels of the donor sample 1 compared to pooled donor sample from all three hrPE donors on log2 scale. Two technical replicates were analysed and all proteins (also those identified in one technical replicate) were included. Average fold change was taken for those expressed in both technical replicates. Of the 1270 proteins present, only 25 (2%) were differentially expressed (2-fold difference in expression), shown in black.

a



b



Supplementary Figure S4. Boxplots of the data on log₂ scale a) before and b) after central tendency normalization showing all MS analyses and technical replicates.

Supplementary Table S1. Relative expression levels of the proteins for 08/017 and 08/023 hESC-RPE cells compared to hRPE presented for each analysis on log2 scale.

Mean number of peptides used for quantification, technical replicate CV, biological replicate CV, mean fold change, and unadjusted p-value shown for each protein.

Note: CV values are calculated using normal scale, not the log2 scale shown here. Technical replicate CV presents variability in the two MS analyses (1.1 and 1.2; 2.1 and 2.2; 3.1 and 3.2) and biological replicate CV between the biological replicate samples of hESC-RPE and hRPE (1-3).

Proteins in descending order of data completeness. Proteins filtered out shown at the end on pages 12-19.

Proteins included in the final analyses, n=1041

UniProt	Protein name	Gene name	Peptide mean	08/017 hESC-RPE to hRPE												08/023 hESC-RPE to hRPE											
				Analysis						Technical replicate CV			Biological CV	Unadjusted p-value (mean)	Unadjusted p-value (t-test)	Analysis						Technical replicate CV			Biological CV	Unadjusted p-value (mean)	Unadjusted p-value (t-test)
				1.1	1.2	2.1	2.2	3.1	3.2	1	2	3				1.1	1.2	2.1	2.2	3.1	3.2	1	2	3			
E9PAV3	Nascent polypeptide-associated complex subunit alpha, muscle-specific form	NACA	1.17	-0.40895	0.461363	-0.1593	0.157323	0.658828	0.700267	41.41	15.46	2.03	26.84	0.23	0.40	-0.00373	1.278032	0.404879	0.334741	0.894945	0.436132	58.99	3.44	22.30	14.18	0.56	0.03
O14745	Na(+)/H(+) exchange regulatory cofactor NHE-RF1	SLC9A3R1	8.67	1.385279	1.86852	1.280794	1.40678	1.46048	1.42337	23.47	6.17	1.82	10.85	1.64	0.09	1.407596	1.91543	1.841261	1.905157	1.435272	1.267986	24.64	3.13	8.21	17.71	1.63	0.01
O15020	Spectrin beta chain, non-erythrocytic 2	SPTBN2	7.17	0.689786	0.326325	0.678602	1.423683	0.228302	0.513031	17.72	35.73	13.92	27.85	0.64	0.09	0.787308	0.742157	1.513737	2.324298	-0.66314	0.60428	2.21	37.64	58.41	67.53	0.89	0.26
O15173	Membrane-associated progesterone receptor component 2	FGFR3C2	2.33	0.567601	0.655982	0.594385	0.71805	0.475136	0.484701	0.08	6.06	0.47	6.16	0.57	0.01	0.418211	0.524127	0.313231	0.633025	0.573406	0.871941	5.19	15.65	14.64	10.46	0.56	0.02
O43707	Alpha-actinin-4	ACTA4	22.83	0.61939	0.72729	0.608064	0.524719	0.588709	0.307044	5.29	3.73	13.76	7.65	0.50	0.01	0.755638	0.750495	0.94059	0.932424	0.73818	0.902831	0.28	2.59	8.16	17.59	0.85	0.01
O75367	Core histone macro-H2A.1	H2AFY	6.67	-0.36798	-0.6498	0.234346	-0.10396	-0.27523	-0.37	13.77	16.51	5.62	21.20	0.26	0.27	-0.30375	-0.38142	0.720371	-0.00835	-0.25936	-0.37114	3.81	34.98	5.48	31.17	-0.10	0.00
O75396	Vesicle-trafficking protein SEC22b	SEC22B	3.67	0.34501	0.377927	-0.21082	0.084603	0.705351	0.276653	1.61	14.43	20.86	19.27	0.26	0.26	-0.00747	-0.55411	0.132872	0.275097	0.681532	0.024729	26.48	6.97	31.65	21.87	0.09	0.68
O75947	ATP synthase subunit d, mitochondrial	ATP5H	10.83	-0.43111	-1.0145	-1.4123	-1.40605	-0.55535	-1.0898	18.10	0.31	25.90	22.23	-1.02	0.03	-0.72874	-0.73337	-1.41765	-1.43938	-0.17243	-0.59995	0.23	1.06	20.75	34.65	-0.85	-0.11
O95336	6-phosphogluconolactonase	PGLS	2.83	1.09558	0.586227	0.790865	1.188078	2.148575	1.356725	24.71	19.35	37.86	37.71	1.19	0.05	1.056718	0.83427	0.541896	1.204035	2.60943	0.910006	10.88	31.90	74.83	46.30	1.19	0.05
O95831	Apoptosis-inducing factor 1, mitochondrial	AIFM1	10.67	-0.20686	-0.55221	-1.46109	-0.91167	-0.53779	-0.0817	16.85	26.61	22.17	29.75	-0.63	0.16	-0.07465	-0.46656	-1.32789	-0.79849	-0.46091	-0.26623	19.09	25.66	9.70	26.80	0.57	0.15
P02489	Alpha-crystallin A chain	CRYAA	9.67	-1.10681	-1.04082	-2.43148	-2.1051	-1.53111	-1.62654	3.23	15.93	4.68	39.21	-1.64	0.04	-1.06636	-1.02826	-1.92145	-1.96239	-2.0942	-1.99325	1.87	2.01	9.83	39.66	-1.66	0.03
P02455	Prelamin A/C	LMNA	20.50	0.108504	0.455588	0.610099	0.542927	-0.31607	-0.28296	16.96	3.29	1.62	29.08	0.19	0.54	0.028853	0.188148	0.289232	0.415668	-0.19664	-0.85929	7.80	6.19	7.08	16.48	0.11	0.50
P04040	Histone H1.0	H1FO	21.17	-2.04842	-2.14108	-0.44693	-0.49816	-1.0726	-1.12142	5.70	12.26	2.39	47.16	-1.25	0.11	-1.58474	-1.29022	-0.69564	-0.69477	-1.5761	-1.44209	14.39	0.04	4.56	33.18	-1.21	0.04
P07373	Profilin-1	PFN1	10.00	0.757371	0.545318	0.405597	0.951848	1.437388	0.893868	10.37	9.28	26.33	26.22	0.77	0.06	0.731521	0.68738	1.07846	1.253985	1.55453	0.924521	2.16	1.16	29.93	33.82	1.04	0.03
P07919	Cytochrome b-c1 complex subunit 6, mitochondrial	UOCHR	2.33	-0.46822	-1.22379	-1.26872	-1.68158	-0.0779	-0.8711	26.90	20.10	37.93	35.22	-0.97	0.08	-1.07742	-0.93389	-0.10552	-1.43187	-0.04239	-0.70454	7.03	20.27	31.90	43.37	0.03	0.08
P07954	Fumarate hydratase, mitochondrial	FH	8.33	-0.45165	-0.2338	-1.80563	-0.95497	-0.94521	-0.43879	10.66	40.53	24.57	32.27	-0.81	0.12	-0.25247	-0.15232	-1.66242	-1.00126	-1.0661	-0.8117	4.91	31.85	14.40	41.76	-0.83	0.13
P08708	40S ribosomal protein S17	RPS17	2.67	1.938882	0.249525	0.234346	0.155194	0.515203	-0.62458	74.48	3.88	53.13	52.47	0.41	0.36	1.060611	0.031603	-0.34707	-0.05504	0.053981	-1.23641	48.40	14.26	59.40	40.30	0.83	0.03
P09382	Galactin-1	LGAL1	6.83	0.763182	0.70359	0.594034	0.297339	0.751501	0.874264	2.92	14.49	6.01	12.70	0.66	0.03	0.638025	0.687653	1.158265	0.737521	1.134361	1.219714	2.43	20.48	4.18	17.59	0.93	0.02
P09417	Dihydropteridine reductase	ODR	4.00	-0.10608	-0.28538	-0.46511	0.14068	-0.17383	0.147772	9.04	29.26	15.70	6.65	-0.12	0.16	-0.2836	-0.04226	-0.31209	-0.07271	-0.39064	0.13178	11.80	11.71	25.33	28.77	-0.16	0.01
P10606	Cytochrome c oxidase subunit 1, mitochondrial	CXO5B	5.00	-0.76492	-0.42163	-1.31545	-1.22569	-0.37431	-0.31631	16.75	4.40	2.61	30.45	-0.74	0.12	-0.81708	-0.40137	-1.24758	-1.54514	-1.85102	-2.37133	57.30	19.69	22.66	13.43	-1.89	0.00
P10745	Retinol-binding protein 3	RBP3	23.67	-2.2667	-1.0768	-1.76993	-1.6656	-1.88047	-1.25288	55.22	4.67	13.48	15.74	-1.80	0.00	-0.458473	-0.706411	1.048766	0.292303	0.114252	0.503375	2.35	36.25	18.96	14.53	0.55	0.05
P11177	Pyruvate dehydrogenase E1 component subunit beta, mitochondrial	PDHFB	9.50	-0.17273	-0.02508	-1.17208	-0.63089	-0.84589	-1.00095	7.22	26.23	7.59	34.40	-0.64	0.14	-0.25273	0.014253	-0.73705	-0.73699	1.08935	-0.66022	13.05	2.13	20.88	29.55	-0.58	0.13
P11216	Glycogen phosphorylase, brain form	PYGB	10.83	-0.16985	-0.32193	0.151579	0.173309	-0.59661	-0.02021	7.45	1.07	27.88	17.75	-0.13	0.47	0.47104	-0.32568	-0.24278	0.048144	-0.07817	-0.41786	7.12	14.21	16.57	10.59	-0.25	0.10
P12225	ADP/ATP translocase 1	SLC25A4	14.50	-0.24764	-0.90209	-0.06035	-1.51109	-1.47486	-0.79508	16.72	26.60	32.71	45.75	-1.11	0.11	-0.25221	-0.62269	-1.06121	-1.79629	-1.32027	-0.86412	18.06	25.91	22.17	51.45	-1.20	0.03
P12271	Retinaldehyde-binding protein 1	RBP1	19.50	-0.85143	-0.83922	-1.04934	-0.91068	-1.32655	-1.45245	0.60	6.79	6.17	18.47	-1.07	0.02	-0.8373	-0.7701	-1.1841	-1.14454	-1.13222	-0.86295	3.29	1.94	13.16	12.52	-0.99	0.01
P12532	Creatine kinase U-type, mitochondrial	CKMT1A	14.00	-1.43373	-0.96512	-3.03515	-2.8866	-1.04378	-1.70639	22.77	7.27	31.92	52.47	-1.85	0.08	-1.41972	-0.94276	-2.85861	-2.4881	-1.38739	-1.9238	23.17	10.06	25.99	46.86	-1.84	0.05
P13010	X-ray repair cross-complementing protein 5	XRCC5	10.83	-0.45948	-0.18875	0.546371	0.330423	-0.53273	-0.66524	13.23	10.56	6.49	39.23	-0.16	0.65	-0.52016	-0.26802	0.286213	-0.00759	-0.47471	-0.75676	12.33	14.35	0.46	31.84	0.34	0.32
P13073	Cytochrome c oxidase subunit 4 isoform 1, mitochondrial	COX4I1	3.83	-0.70497	-1.24883	-1.28477	-1.50434	-1.08174	-0.73786	26.34	10.74	16.78	17.63	-1.09	0.02	-0.81284	-1.18878	-1.23383	-1.16816	-0.71854	-0.57132	18.32	3.22	7.21	19.84	-0.95	0.03
P13639	Elongation factor 2	EEF2	13.67	0.923397	0.02176	0.157294	0.67922	0.698563	1.17119	4.82	25.20	22.96	19.56	0.77	0.05	0.102826	1.300535	0.919886	0.70622	0.88423	1.240613	5.28	25.63	17.38	22.00	0.87	0.05
P13804	Electron transfer flavoprotein subunit alpha, mitochondrial	ETF	9.67	0.373704	0.211832	-0.16137	-0.45617	-0.5821	-0.37089	7.93	14.40	10.33	29.35	-0.16	0.55	0.571861	0.0496	-0.47184	-0.69151	-0.24022	-0.15836	22.74	11.45	12.32	31.81	-0.19	0.53
P13871	ATP synthase subunit delta1	ATP5B1	3.61	-0.48959	-0.75287	-1.7401	-1.40256	-0.64549	-0.46149	16.87	19.55	10.29	39.55	-0.01	0.07	-0.70678	-0.57428	-0.69564	-0.69477	-0.10021	-0.26129	6.39	9.07	3.79	30.01	-0.68	0.08
P16152	Carbonyl reductase [NADPH] 1	CBR1	7.00	0.798563	0.41499	-0.27737	0.119481	0.37003	0.993179	18.69	19.33	1.13	23.10	0.30	0.27	0.59834	0.265512	0.381176	0.423404	0.157164	0.211232	16.34	20.07	2.65	9.32	0.34	0.05
P16499	Rod cGMP-specific 3'-5'-cyclic phosphodiesterase subunit alpha	PDE6A	16.67	-1.19825	-1.05101	-1.76993	-1.48946	-0.80233	-1.02078	7.21	13.27	10.69	23.94	-1.22	0.03	-1.40282	-0.90307	-1.57236	-1.65291	-0.45239	-1.39741	24.25	3.95	44.73	25.63	-1.23	0.03
P17174	Aspartate aminotransferase, cytoplasmic	GOT1	7.83	0.029036	-0.29769	-0.30887	-0.28516	-0.39677	-0.12081	15.95	1.16	13.48	6.26	-1.23	0.04	0.127629	-0.05915	-0.33139	0.159654	-0.28055	-0.303	9.14	23.84	1.10	11.41	0.35	0.26
P17643	5,6-dihydroxyindole-2-carboxylic acid oxidase	TYRP1	5.00	1.90488	1.885831	0.852643	1.55571	0.947329	1.357271	0.87	33.79	19.94	29.37	1.42	0.03	1.238022	1.159827	0.815897	0.686062	0.527665	1.128748	3.83	6.36	29.04	16.69	0.93	0.02
P17858	ATP-dependent 6-phosphofruktokinase, liver type	PFKL	7.83	0.191439	0.11787	0.075391	0.364814	0.048183	0.242921	3.61	14.14	9.53	30.03	-0.16	0.65	-0.06377	0.312776	0.29614	0.323895	0.175406	0.311593	12.05	1.36	6.67	4.01	0.25	0.02
P17987	T-complex protein 1 subunit alpha	TCP1	8.50	-0.18097	-0.30213	-0.04059	-0.07285	-0.03059	-0.03635	5.94	1.58	0.28	7.68	0.11	0.24	-0.2118	0.024255	0.086435	-0.05137	-0.724	-0.62876	11.54	6.75	4.67	23.93	-0.25	0.06
P21281	V-type proton ATPase subunit B, brain isoform	ATP6V1B2	12.33	-0.24158	-0.6087	-0.20165	-0.64155	-0.23832	-0.35163	17.90	21.40	5.															

UniProt	Protein name	Gene name	Peptide mean	Analysis						Technical replicate CV			Biological CV	Fold change (mean)	Unadjusted p-value (t-test)	08/023 HESC-RPE to hRP6						Fold change (mean)	Unadjusted p-value (t-test)				
				1.1	1.2	2.1	2.2	3.1	3.2	1	2	3				1.1	1.2	2.1	2.2	3.1	3.2						
				1	2	3	4	5	6	7	8	9				10	11	12	13	14	15						
P68366	Tubulin alpha-4A chain	TUBA4A	38.00	-1.32715	-1	-0.75421	-0.2128	-1.78633	-1.73904	15.97	26.23	2.32	44.74	-1.14	0.09	-1.45713	-1.18026	-1.12208	-0.45833	-1.07534	-1.63473	13.53	14.43	27.08	44.07	-0.99	0.10
P78363	Retinol-specific ATP-binding cassette transporter	ABCA4	23.00	-0.59029	-0.29793	-1.20439	-1.87592	-0.25724	-2.21216	14.28	32.33	83.43	35.81	8.00	0.07	-1.27589	-0.31303	-0.26024	-1.6753	-1.70454	-0.69376	45.52	21.56	41.14	40.75	-0.84	0.11
P75827	DNA-dependent protein kinase catalytic subunit	PKKDC	6.50	-0.64218	0.24184	0.319222	0.138766	0.028582	-0.36686	42.02	8.83	19.26	15.67	-0.05	0.77	0.210069	-0.74403	-0.61591	-0.2649	0.19143	-0.38673	45.13	17.12	27.96	12.46	-0.27	0.11
P80723	Brain acid soluble protein 1	BASP1	8.17	-0.8852	-0.55416	-0.64573	-0.58707	-1.02119	-1.37307	16.15	2.87	17.16	19.91	0.85	0.04	-0.77561	-0.37684	-0.19333	-0.21865	-0.8713	-1.45201	19.42	1.24	28.08	30.84	-0.65	0.15
Q01813	ATP-dependent 6-phosphofructokinase, platelet type	PFKP	10.50	-0.13809	-0.32559	0.372812	0.09772	0.5848	0.370616	9.08	13.44	7.48	30.29	0.22	0.03	-0.26231	-0.09424	0.13771	-0.07298	0.403411	-1.230156	8.27	10.31	8.48	17.38	-0.76	0.73
C00252	A-kinase anchor protein 2	AKAP12	5.83	-1.04377	-0.11514	-1.56313	-0.78589	-1.69751	-0.55086	41.78	37.20	53.43	22.50	-0.97	0.03	-0.54296	-0.41012	-0.86459	-0.27892	-1.33585	-1.19465	5.61	28.32	6.92	27.36	-0.77	0.09
C05295	Rod outer segment membrane protein 1	ROM1	6.83	-0.35609	-0.19919	-1.78174	-2.45104	-0.14074	-0.26859	17.64	12.19	19.75	16.65	-0.88	0.23	-0.3203	-0.89403	-0.58423	-0.39433	-0.97449	-0.69758	16.28	25.8	41.39	40.07	-1.28	0.23
Q07954	Protein density lipoprotein receptor-related protein 1	LRP1	2.50	0.663037	0.475935	-0.04332	0.42437	0.532895	0.159888	10.81	22.72	18.20	10.65	0.40	0.00	0.496389	0.197595	-0.02888	-0.30674	0.982944	0.239344	24.21	13.58	28.66	27.42	0.30	0.34
Q07960	Rho GTPase-activating protein 1	RHAGAP1	6.17	0.852234	1.00315	1.114845	0.585538	0.143268	0.716386	8.71	25.66	27.60	17.30	0.74	0.04	0.941074	0.71771	0.271292	0.151498	0.844247	1.472307	10.93	27.57	30.31	29.48	0.74	0.06
Q08211	ATP-dependent RNA helicase A	DHX9	7.83	0.265362	0.161633	-0.15723	0.47608	-0.06293	-0.23659	5.08	30.55	5.80	13.47	0.07	0.58	0.206655	0.397523	-0.08388	-0.17869	0.33637	-0.23793	9.34	4.65	4.82	23.04	0.04	0.85
Q09666	Neuroblast differentiation-associated protein AHNAK	AHNAK	21.50	-0.04722	-0.2145	-0.17597	-0.14069	-0.65617	-0.52056	8.19	1.73	6.64	16.80	0.29	0.19	0.058403	-0.11892	0.66734	0.7961	-0.07927	-0.08045	8.68	6.31	0.06	33.74	0.21	0.51
Q12797	Asparyl/asparaginyl beta-hydroxylase	ASPH	4.67	-0.57878	-0.62675	-0.11098	-0.38078	-0.92013	-1.06416	2.35	13.19	7.05	25.70	-0.61	0.10	-0.05403	-0.5632	-0.43466	-0.57904	0.36831	-0.4915	24.76	7.07	6.83	7.77	-0.42	0.02
Q13011	Delta(3,5)-Delta(2,4)-dienoyl-CoA isomerase, mitochondrial	ECHI	7.67	0.906696	0.954098	0.323253	0.249797	0.304645	1.382594	2.62	3.60	50.51	23.75	0.69	0.08	1.001861	1.141964	-0.0812	-0.30987	0.321722	1.126298	6.80	11.18	38.44	40.11	0.53	0.23
Q13885	Tubulin beta-2A chain	TUBB2A	44.67	-2.39853	-1.94854	-1.88467	-1.53993	-1.81408	-1.95273	21.88	16.82	6.79	15.55	-1.92	0.00	-2.43564	-2.43821	-2.19599	-1.91594	-1.60286	-1.22856	0.13	11.91	25.48	20.21	-2.11	0.01
Q14204	Cytoplasmic dynein 1 heavy chain 1	DYNC1H1	19.83	-0.0077	0.604321	-0.38124	1.450071	0.06592	0.419271	29.55	79.38	17.07	21.84	0.36	0.06	-0.00791	-0.92597	-0.80192	1.240047	0.365554	0.335884	44.09	86.40	1.45	7.69	0.34	0.04
Q14240	Eukaryotic initiation factor 4A-I1	EIF4A2	5.17	0.214186	0.451124	0.422901	0.639504	0.278643	0.105335	11.59	10.60	8.22	12.12	0.35	0.07	0.213853	0.228016	0.328342	0.444512	0.396359	0.077016	0.69	5.49	15.59	6.33	0.28	0.03
Q14271	Retinoid isomerase 2	RIS2	4.87	1.195828	0.227348	0.45193	0.05248	-0.38951	-0.01096	9.02	24.88	18.06	34.53	0.24	0.47	0.008085	0.026853	0.346983	0.194866	0.104956	0.492	6.63	8.50	13.91	14.92	0.24	0.12
Q14894	Ketimine reductase mu-crystallin	KRYM	11.67	-0.86643	-1.37756	-1.5491	-1.54607	-1.75674	-1.36213	24.88	10.5	19.22	18.76	-0.11	0.01	-0.75734	-1.10344	-1.65602	-1.83448	-2.00435	-1.0402	16.88	8.74	29.00	33.80	-1.49	0.03
Q15084	Protein disulfide-isomerase A6	PDIA6	11.33	0.975682	1.075533	0.578321	0.601958	0.943917	0.659958	4.89	11.6	13.87	15.07	0.81	0.02	0.944266	0.906229	0.374164	0.374021	0.886021	0.72019	1.86	0.01	8.12	19.04	0.70	0.05
Q15149	Plectin	PLEC	25.83	0.608716	0.748574	0.569239	0.913077	0.521546	0.599028	6.85	16.77	3.80	6.62	0.66	0.01	0.418539	0.92492	0.79315	1.175829	0.677529	0.8457	24.57	18.65	8.23	11.26	0.81	0.01
Q16158	Retinol isomethyltransferase	REPE5	24.67	-2.31095	-2.40194	-0.20432	-2.82179	-2.6966	-2.3266	4.46	9.91	18.04	19.32	-2.60	0.00	-2.48018	-2.37398	-3.10347	-2.94966	-2.64868	-2.2344	5.20	3.13	20.08	16.94	-2.62	0.00
Q5KU26	Colectin-12	COLECT12	2.67	1.855229	1.554266	0.775154	1.569551	1.270517	0.994904	14.70	37.98	13.47	22.44	1.34	0.02	2.15145	1.633213	1.20281	1.214668	1.788893	1.007687	25.13	43.71	37.38	20.61	-1.65	0.01
Q6ZVX7	F-box only protein 50	NCRP1	2.33	1.517464	1.042644	1.845506	1.644994	0.370895	2.912346	23.06	9.81	99.96	28.60	1.56	0.01	2.369177	1.450086	1.052187	1.605343	0.454857	2.690151	45.38	26.78	91.87	22.82	-1.60	0.01
Q7U1U9	Histone H2A.1	H2AFV	5.17	-1.97109	-1.24613	-1.28671	-1.74821	-0.97512	-0.66367	16.54	22.43	15.21	43.41	-1.47	0.06	-1.62405	-1.8822	-0.81879	-1.61531	-1.63911	-1.67723	12.62	38.08	2.85	23.08	-1.55	0.01
Q8B9X0	Saccharoline dehydrogenase-like oxidoreductase	SDOH	6.00	-0.53789	-0.15817	-0.87773	-0.82631	-0.76955	-0.05429	23.27	0.91	34.36	17.12	-0.55	0.04	-0.46299	-0.19431	-0.89574	-0.53556	-0.581335	-1.10903	17.35	11.61	25.58	17.09	-0.64	0.04
Q8TC12	Retinol dehydrogenase 11	RHD11	4.00	-0.35634	-0.60292	0.756	-0.72536	-0.10576	-0.1664	1.50	2.97	15.03	15.03	-0.12	0.12	0.57655	-0.74256	0.66522	-1.04641	-0.03792	-0.49487	8.13	18.58	20.55	22.52	-0.59	0.08
Q9AFJ2	Dynein light chain 2, cytoplasmic	DYNLL2	3.00	-0.7367	-1.00523	-0.56391	-0.51636	-1.15557	-1.92126	13.12	23.3	3.75	24.76	-0.25	0.13	-0.31134	-0.8327	-0.86736	-0.48139	-0.55377	-0.48609	25.28	18.81	3.32	5.13	-0.59	0.01
Q9AG03	Phosphoglucomutase-2	PGM2	6.67	-0.26504	-0.16165	-0.72019	-0.98179	-0.72128	-1.16894	21.95	12.79	13.92	18.16	-0.27	0.03	-0.41855	-0.74699	-0.59346	-0.89843	-0.96951	-1.2344	16.03	14.85	12.95	17.45	-0.81	0.03
Q96NY7	Chloride intracellular channel protein 6	CLIC6	5.67	1.537945	1.458189	0.726324	0.776623	1.792673	0.45583	3.91	2.47	61.20	25.06	1.17	0.03	0.96944	0.98003	1.57946	1.744541	1.89277	0.686664	0.52	0.56	5.12	26.24	1.34	0.03
Q9BRX8	Redox-regulatory protein FAM213A	FAM213A	5.00	-0.30364	-0.55835	-0.77447	-0.55767	-0.0704	0.015184	25.58	10.61	18.04	21.52	-0.33	0.22	0.010405	-0.48463	-0.82819	-0.74337	0.166958	-0.03741	24.01	4.16	10.00	28.40	-0.32	0.33
Q9BS26	Endoplasmic reticulum resident protein 44	ERP44	3.50	2.191439	0.534874	0.201991	0.252455	0.178898	0.447253	73.31	2.47	13.12	57.46	0.63	0.22	1.995391	0.624592	1.024539	0.339535	0.154379	0.26032	62.55	10.52	10.00	54.30	-0.58	0.01
Q9P035	Very-long-chain (3R)-3-hydroxyacyl-CoA dehydratase 3	HADC3	4.17	-0.05068	0.080299	-0.5063	-0.79456	0.044664	-0.71727	6.42	14.08	36.50	22.53	-0.32	0.23	-0.74113	-1.02097	-0.93112	-1.17498	-1.61941	-0.40363	30.78	26.35	31.45	20.67	-0.54	0.10
Q9UHL4	Dipeptidyl peptidase 2	DPPI2	5.50	1.594837	0.968624	0.818482	0.768134	0.946168	0.392964	30.22	2.47	26.79	24.25	0.91	0.04	1.592466	0.93579	0.167855	0.662341	0.619761	0.578991	31.64	22.57	2.00	33.46	-0.76	0.10
Q9V257	Voltage-dependent anion-selective channel protein 3	VDAC3	7.47	-0.49128	-0.58943	-0.54233	-0.52992	-0.20878	-0.42639	14.51	12.88	10.65	23.18	-0.66	0.08	-0.46299	-0.19104	-1.10	-0.88045	-0.56903	-0.3301	23.89	10.21	21.21	22.94	-1.04	0.00
Q9Y490	Talin-1	TLN1	12.67	0.72121	1.513624	0.949289	1.889034	0.997622	1.045694	37.89	40.93	23.23	15.03	0.97	0.01	0.899862	0.95615	0.565022	1.52893	0.94343	1.168956	7.76	44.60	16.61	7.85	-1.04	0.00
AA0A24QZN7	Chromosome 10 open reading frame 70, isoform CRA_b																										

UniProt	Protein name	Gene name	Peptide mean	08/017 hESC-RPE to hRPE												08/023 hESC-RPE to hRPE											
				Analysis						Technical replicate CV			Biological	Fold change (mean)	Unadjusted p-value (t-test)	Analysis						Technical replicate CV			Biological	Fold change (mean)	Unadjusted p-value (t-test)
				1.1	1.2	2.1	2.2	3.1	3.2	1	2	3	CV			1.1	1.2	2.1	2.2	3.1	3.2	1	2	3	CV		
B4E1J8	cDNA FLJ56285, highly similar to ADP-ribosylation factor-like protein 8B	NA	2.50	0.206359	0.580526	1.027874	0.478542	0.071784	0.122159	18.24	28.72	2.47	24.83	0.42	0.16	0.081159	0.52673	0.944145	0.239629	0.083163	0.144232	21.67	33.86	2.99	18.41	0.34	0.14
B4E2G8	cDNA FLJ54047, highly similar to Alpha-1 catenin (Cadherin-associated protein)	NA	6.17	0.191975	1.064959	0.274562	0.903666	0.478451	0.196809	41.21	30.25	0.33	17.44	0.52	0.03	0.170142	0.494089	0.656265	0.445809	-0.67894	0.144232	69.99	10.31	34.59	31.07	0.06	0.25
B4E3D4	cDNA FLJ56293, highly similar to Transmembrane glycoprotein NMB	NA	7.83	1.279459	1.157044	0.399984	0.454695	0.713899	0.528274	6.00	2.68	9.09	29.95	0.76	0.09	0.80397	0.852934	-0.4163	-0.13564	0.166233	0.861222	2.40	13.71	9.79	39.72	0.50	0.33
B5BUB5	Autoantigen La (Fragment)	SSB	5.67	0.023818	0.00946	0.66429	0.691198	-0.1544	-0.62088	0.70	3.12	22.67	37.65	0.10	0.77	-0.11965	-0.34318	0.475378	0.631723	0.034327	-1.04314	10.93	7.66	5.68	37.74	0.06	0.87
B5MCK3	Septin-2	SEPT2	3.83	-0.40739	-0.21605	0.144642	-0.31044	-0.36312	-0.00723	7.13	22.12	17.36	3.91	0.14	0.04	-0.08646	-0.21311	-0.1025	-0.35663	0.38118	0.094145	6.12	12.37	20.94	27.87	0.18	0.02
B5MDF3	GTP-binding nuclear protein Ran	RAN	4.67	0.402434	0.42379	0.518147	0.810688	-0.33552	-0.117923	1.05	14.29	10.94	29.50	0.28	0.39	0.160937	0.330759	-0.4055	0.891278	0.05418	-0.13513	8.31	21.20	9.27	25.93	0.29	0.29
B7Z2N4	cDNA FLJ56074, highly similar to 150 kDa oxygen-regulated protein (Orp150)	ORA1	8.33	0.306691	0.19729	0.519992	0.570845	0.476395	12.67	22.04	4.63	17.26	0.25	0.23	0.383862	0.077016	0.48322	0.61798	0.303983	14.98	23.04	18.28	24.62	0.16	0.54		
BZ74B3	Receptor expression-enhancing protein	NA	2.83	0.312884	0.182525	0.157889	0.791016	0.615416	1.040827	4.3	20.1	20.91	3.63	0.64	0.08	0.73771	0.268413	-1.45706	-1.528085	0.3176	0.830129	22.98	11.12	22.71	39.73	0.86	0.11
B9E4V4	Aldehyde dehydrogenase 9 family, member A1	ALDH9A1	12.50	0.625528	0.2808	0.160381	0.181003	0.412555	0.342918	16.82	10.1	3.41	20.29	0.33	0.06	0.910042	0.491113	0.120588	0.413586	0.038328	0.278622	20.39	14.31	3.53	17.62	0.43	0.01
C9R9K3	40S ribosomal protein S4 (Fragment)	RPS4	4.17	0.896578	0.719818	0.55974	0.977019	0.250986	0.433714	8.65	20.31	71.89	28.11	0.94	0.03	0.610733	0.6856	0.477195	0.852253	1.813869	0.453039	3.67	18.53	62.07	26.62	0.81	0.04
D3DPD2	Adenylyl cyclase-associated protein	CAP1	5.83	0.132861	0.014731	-0.20043	-0.11791	-0.10245	-0.636359	5.79	4.04	25.88	14.66	-0.15	0.36	0.203995	0.010101	-0.10522	0.027	0.256922	0.034587	9.49	6.88	10.88	7.4	0.07	0.33
D3DQU2	Tripeptidyl peptidase I, isoform CRA_a	PPP1	7.00	-0.43506	-0.11968	-0.64324	-0.57053	-0.13279	-0.44705	15.40	3.56	13.84	12.73	-0.39	0.07	-0.25299	-0.29914	-1.00736	-0.95405	0.352333	0.089747	2.26	26.1	12.83	39.77	0.35	0.43
D9IAI1	Epididymis secretory protein Li 34	EDUS1	14.67	0.47178	0.565982	0.542191	0.563766	0.340526	0.60322	4.62	1.06	15.24	2.61	0.51	0.00	0.594282	0.653178	0.839141	0.776935	0.260551	0.614664	2.89	3.05	17.27	14.27	0.62	0.03
ESKRK5	Mitochondrial NADH-ubiquinone oxidoreductase 75 kDa subunit	NDUFS1	18.00	-0.32001	-0.26905	-1.13581	-1.11648	-0.76884	-0.04872	2.50	0.95	34.58	28.69	-0.61	0.14	-0.51733	-0.37141	-1.05704	-1.29431	-0.87851	-0.00977	7.15	11.60	41.34	27.30	-1.69	0.11
ESMHW4	Erlin-2 (Fragment)	ERLIN2	5.33	1.765963	1.400538	1.114114	1.677252	0.98553	1.252835	17.82	27.38	13.04	16.07	1.37	0.01	1.503531	1.291599	0.742169	1.179511	1.770041	2.079551	10.37	21.27	15.11	33.52	0.43	0.04
EWK14	Epididymis tissue sperm binding protein L14m	NA	27.67	0.479801	0.616155	0.230736	0.164397	-0.030994	0.051095	6.72	2.21	9.86	0.26	0.24	0.45672	0.570868	-0.22025	-0.21104	0.47634	0.333887	5.59	0.47	6.89	25.09	0.23	0.41	
EWK48	Epididymis tissue sperm binding protein L18mP	NA	14.83	-0.06538	-0.52319	-0.52582	-0.95446	-0.63279	-0.44301	22.30	11.01	9.29	15.73	-0.51	0.06	0.21842	-0.50732	0.68055	1.0485	0.54258	-0.481	11.11	17.94	8.02	17.02	-0.58	0.06
EP9CR7	2-oxoglutarate dehydrogenase, mitochondrial	OGDH	10.67	-0.14344	0.146621	-0.7822	-0.53343	-0.57917	-0.5232	15.14	21.61	27.4	25.61	-0.1	0.04	-0.01232	0.221794	-0.7122	-0.75738	0.016448	-0.60675	11.45	12.21	30.08	28.55	-0.31	0.02
EP9IE4	Mitochondrial carrier homolog 2 (Fragment)	MTC4	2.17	0.14056	0.025402	-0.95898	-1.05111	0.248211	0.131608	5.64	4.51	5.71	38.90	-0.24	0.59	0.178082	-0.04067	-0.25511	-0.96633	0.029473	-0.29615	10.70	34.17	15.89	21.68	-0.23	0.38
EP9LK3	Puromycin-sensitive aminopeptidase	NPEPPS	6.83	-0.09415	-0.10225	0.022617	0.011165	0.090679	-0.42791	0.40	0.56	25.15	5.85	-0.08	0.26	-0.4165	0.036553	-0.20437	-0.06477	-0.1846	-0.6821	22.02	6.84	13.86	7.60	0.22	0.06
ET1OT7	Cellular retinoic acid binding protein 1	CRABP1	14.67	-1.94762	-1.89531	-2.41442	-2.5021	-2.50271	-2.71843	2.56	4.40	10.55	26.17	-2.33	0.01	-1.96023	-1.8382	-2.43671	-2.37121	-2.52826	-2.7154	5.98	3.21	7.96	26.35	-2.31	0.01
F5H7R9	Parathyromin (Fragment)	PTMS	1.00	-0.8046	-0.51403	-1.04824	-0.92713	-1.35309	-0.51712	14.19	5.93	39.86	12.00	-0.86	0.01	-0.86019	-0.59181	-0.65602	-0.63086	-1.75646	-0.70106	13.12	1.23	49.54	17.93	0.27	0.04
F8W031	Uncharacterized protein (Fragment)	NA	4.67	0.728555	0.576968	0.745739	0.490037	0.45804	0.506453	4.72	12.50	2.37	6.26	0.58	0.01	0.861905	1.08732	1.574465	0.996463	0.76194	1.279565	11.03	27.96	24.97	12.71	1.09	0.01
G3VZ37	Proteasome subunit alpha type	PSMA6	3.00	-0.0385	0.484477	0.626159	0.126903	-0.14711	-0.20611	25.36	22.51	2.89	20.08	0.15	0.48	-0.175798	0.629016	0.341115	0.034529	-0.03829	22.89	5.24	3.57	15.47	0.26	0.19	
G4V299	Anion exchange protein	NA	6.50	-1.22423	-1.19873	-1.13348	-1.99276	-1.21423	-1.21445	1.25	40.01	0.99	11.07	-1.33	0.01	-1.12537	-1.14572	-1.47208	-1.84623	-1.17095	-1.06447	1.00	18.24	2.13	20.09	-1.29	0.02
G4X0L9	Cytochrome c	CYCS	9.50	-0.06538	-0.52319	-0.52582	-0.95446	-0.63279	-0.44301	22.30	11.01	9.29	15.73	-0.51	0.06	0.21842	-0.50732	0.68055	1.0485	0.54258	-0.481	11.11	17.94	8.02	17.02	-0.58	0.06
G4Y8T5	Beta-synuclein	SNCB	3.50	-1.83307	-1.16727	0.367891	-1.02889	-0.83212	-0.48828	32.07	63.57	17.06	41.87	-0.83	0.14	-0.78011	-1.05502	0.314774	-0.84442	-1.28659	-0.79006	13.43	9.34	24.70	34.96	-0.74	0.09
HOY7A7	Calmodulin (Fragment)	CALM2	5.83	-0.41209	-0.52164	-0.25095	-0.02674	-0.92013	-1.52462	5.37	10.97	29.20	34.47	-0.40	0.20	-0.44068	-0.12924	-0.36782	0.146947	-0.81129	-0.9426	15.21	24.97	64.33	26.43	-0.42	0.21
HOYB33	Ribonuclease UK114 (Fragment)	HRSP12	2.33	0.195914	0.571485	-0.03108	-0.48429	0.404023	-0.89508	18.30	22.03	59.69	24.26	-0.04	0.07	0.271446	-0.00596	0.270564	-0.35466	0.80266	-1.52161	13.55	30.17	7.88	16.99	0.42	0.12
HOYF11	Regulator complex protein LAMTOR1 (Fragment)	LAMTOR1	1.00	-0.02202	0.793951	-0.24559	-0.08147	0.966842	0.598561	38.96	8.04	17.95	31.66	0.34	0.35	0.037632	0.312776	0.096174	0.805515	0.036748	0.218422	13.44	34.08	8.88	14.09	-0.25	0.13
H3BN98	Uncharacterized protein (Fragment)	NA	5.83	-0.8454	-0.99242	-0.41265	-0.90129	0.248682	0.365254	7.53	23.72	5.71	47.42	0.46	0.03	-0.92361	-0.83388	-0.62777	-0.58131	-1.19522	0.152153	4.04	2.33	16.94	31.87	0.50	0.13
H3BQZ7	HCG2044799	HNRNPUL2-BSC12	2.83	1.272387	-0.13273	1.211865	1.734226	0.159755	0.03942	63.90	25.33	6.16	48.09	0.71	0.22	1.056824	-0.08978	0.179827	1.06814	0.100817	0.578704	53.42	42.21	23.21	11.54	0.48	0.03
H3BF58	Coactosin-like protein	COT11	2.83	0.787791	0.85536	1.45187	1.325803	1.025838	0.42598	3.31	6.17	29.14	25.53	0.98	0.04	0.949382	1.142624	1.742547	1.193554	1.307088	0.843076	9.43	2.50	22.55	29.73	1.30	0.03
H4V0R3	Actin-bundle stabilizing protein	NA	10.00	1.12508	1.313017	0.771898	1.49574	1.648154	1.913	20.32	12.86	49.22	26.06	0.64	0.02	1.502071	0.841293	0.12469	0.17271	0.69494	0.47493	26.99	22.93	16.46	40.04	0.63	0.20
IL2L26	Thioredoxin domain-containing protein 17	TXNDC17	1.17	-1.13096	-1.285436	-0.625234	-0.310366	-0.08634	1.592341	64.34	16.69	74.10	16.99	0.64	0.02	1.028059	0.912096	0.027075	0.543405	0.273097	1.154655	6.17	25.04	4.72	30.54	-1.69	0.03
H4Y8T7	Macrophage migration inhibitory factor (Fragment)	MYF	7.11	1.511884	1.464049	1.816903	1.442547																				

UniProt	Protein name	Gene name	Peptide mean	08/017 HESC-RPE to NRPE												08/023 HESC-RPE to NRPE											
				Analysis						Technical replicate CV			Biological CV	Fold change (mean)	Unadjusted p-value (t-test)	Analysis						Technical replicate CV			Biological CV	Fold change (mean)	Unadjusted p-value (t-test)
				1.1	1.2	2.1	2.2	3.1	3.2	1	2	3				1.1	1.2	2.1	2.2	3.1	3.2	1	2	3			
O6IA11	Epididymis secretary sperm binding protein L46e	GDI2	9.83	-0.10384	0.027235	0.088663	-0.04866	-0.31207	-0.68737	15.19	6.73	18.29	19.78	-0.14	0.51	-0.2032	-0.06652	-0.34225	0.005541	-0.53657	-0.28645	6.69	16.96	12.23	10.14	-0.24	0.11
O6IAW5	CALU protein	CALU	7.83	0.404666	0.642514	0.763022	0.757726	0.336325	0.276563	11.61	6.26	2.93	15.70	0.03	0.06	0.81771	0.908931	0.957108	1.139292	0.838014	0.845461	4.47	8.92	0.36	8.14	-0.92	0.04
O6IB11	PGRCM1 protein	PGRCM1	3.83	1.314231	1.097167	0.444682	1.113767	0.661836	0.798526	10.62	32.22	6.69	18.35	0.91	0.03	0.103305	0.101395	0.308658	0.765401	0.945251	1.136365	0.94	22.20	9.34	18.02	8.07	0.03
O6IB5A	ATPS4 ATP synthase-coupling factor 6, mitochondrial	ATPS4	3.33	-0.46192	-0.65786	-1.04989	-1.1	-0.16942	-0.0297	9.59	2.46	6.84	33.05	-0.18	0.06	-0.74811	-0.248	-1.81522	-1.16306	-0.77935	-0.8329	24.27	31.42	9.62	32.16	-0.93	0.09
O6IBH0	SLC25A11 protein	SLC25A11	7.00	-0.08681	0.240073	-1.57493	-1.44787	-0.76029	-0.30182	15.95	6.22	22.28	50.41	-0.66	0.29	-0.13448	0.115515	-0.19762	-1.51887	-1.29063	-0.23391	12.21	20.50	49.62	43.80	-0.69	0.21
O6IBH1	HNRPK protein	HNRPK	10.33	-0.37843	-0.33839	0.423494	0.291965	-0.75367	-0.45239	1.96	6.44	14.72	36.29	0.20	0.56	0.033998	0.075362	0.303335	0.450434	-0.71956	-0.33459	2.05	7.20	18.76	29.75	-0.03	0.92
O6IBS5	DST protein	DST	3.83	0.25538	0.26106	0.99762	0.69733	-0.31764	0.51147	0.08	14.67	39.56	33.21	0.34	0.85	-0.42849	-0.1661	-0.5704	-0.5704	-0.22314	-0.8579	12.81	27.32	30.20	18.23	-0.56	0.07
O6ICP1	Electron factor 1-alpha	EEF1A	17.00	0.454264	0.761194	0.163959	0.683503	0.951386	0.788998	17.93	3.94	7.98	82.76	0.01	0.01	0.654264	0.761194	1.029268	0.985034	0.684365	0.745568	5.96	10.37	5.00	12.21	0.81	0.01
O6ICR1	S-(hydroxymethyl)glutathione dehydrogenase	ADH5	5.67	0.391221	0.005495	0.008193	0.311853	0.489246	0.218593	18.82	14.83	13.23	7.09	0.24	0.06	0.773017	0.20945	-0.01932	-0.05801	0.399431	0.2727	10.57	22.3	16.24	20.03	-0.19	0.04
O6I2S2	Annexin (Fragment)	ANXA4	8.50	-0.08284	0.203284	-0.26107	-0.22507	-0.15099	-0.57573	13.98	1.76	20.67	15.39	-0.18	0.29	0.146575	0.725061	-0.27426	-0.36893	-0.41718	-0.21837	2.77	4.64	9.73	33.52	-0.07	0.81
O6I2T3	HPRT1 protein (Fragment)	HPRT1	3.00	-1.16786	-1.36187	-1.10812	-0.86627	-1.90696	-1.42905	9.49	11.83	23.21	22.61	-0.31	0.02	-0.8373	-0.99582	-0.53999	-1.4387	-1.75437	-0.89524	7.96	42.68	40.91	13.20	-1.08	0.01
O6I2U2	Sodium/potassium-transporting ATPase subunit beta (Fragment)	ATP1B1	6.67	-0.00513	0.199982	0.370763	0.093031	-0.16487	-0.01377	10.04	13.57	7.40	11.22	0.08	0.04	-0.13737	0.245409	0.546602	0.121656	-0.12589	-0.50602	18.65	20.65	18.52	22.21	0.02	0.91
O6I2V0	SLC25A5 protein (Fragment)	SLC25A5	14.67	-0.87542	-0.85974	-1.51385	-1.78408	-0.74779	-0.75756	0.77	13.21	0.48	30.05	-1.09	0.06	-1.02877	-1.14378	-2.04969	-2.15686	-1.08891	-1.02909	5.63	5.25	2.93	35.53	-1.42	0.05
O6I2XR8	40S ribosomal protein S3a	RPS3A	4.17	-0.03971	-0.53039	0.035807	-0.14302	0.38145	0.566854	23.82	8.72	9.07	27.49	0.05	0.86	-0.00022	0.149334	0.473739	0.112115	0.301395	0.438661	7.32	17.63	6.72	10.44	0.25	0.11
O6I2KH8	ANP32A protein (Fragment)	ANP32A	6.33	-0.28841	-0.36896	0.382604	1.027294	-0.01836	-0.04532	3.95	31.08	1.22	40.15	0.12	0.74	-0.37926	-0.04908	0.954237	1.080961	-0.22343	-0.1998	16.11	6.21	1.16	53.51	0.20	0.68
O75MT9	Malate dehydrogenase (Fragment)	MDH2	19.17	-0.16827	-0.56031	-1.60767	-1.26155	-0.39843	-0.40808	10.18	2.26	0.47	37.86	-0.88	0.13	-0.6086	-0.4037	-1.50977	-1.49591	-0.51056	-0.57101	10.03	6.68	0.02	33.79	-0.86	0.12
O75L19	CTSB protein	CTSB	3.67	1.611166	1.724005	1.371686	1.571316	2.228004	0.028756	5.49	6.91	9.75	27.22	0.26	0.02	1.634077	1.810208	1.595385	1.952152	1.727776	1.732579	8.61	12.40	0.28	2.74	0.04	0.04
O7Z4W8	Heparin-binding protein HBP15	NA	1.33	-2.23022	-1.77544	-0.44116	0.784756	-0.71668	-1.56587	22.11	56.71	40.46	78.62	-0.29	0.06	0.005089	-1.8001	0.29353	0.464584	0.366677	0.207528	81.17	8.57	7.79	32.05	-0.06	0.89
O7Z612	Acidic ribosomal phosphoprotein P1	NA	2.83	-0.58054	-0.64267	-0.2142	-0.30848	-0.06293	0.03021	3.04	4.62	4.56	20.27	-0.30	0.23	-0.07096	-0.17056	-0.30958	-0.70379	-0.26606	-0.53272	4.88	19.20	13.03	13.72	-0.34	0.10
O86U00	Protein BLOC155-TXNDCS	TXNDCS	4.00	0.714448	0.771218	0.651016	1.116566	1.323479	0.380859	9.78	22.62	44.62	9.39	0.80	0.01	0.729397	0.727459	0.707335	1.593768	1.62951	0.42319	0.12	3.39	56.91	18.70	0.98	0.02
O86V15	Acetyltransferase component of pyruvate dehydrogenase complex	DLAT	4.00	-0.40466	-0.8083	-0.68909	-0.97919	-0.65045	-0.75517	17.92	14.17	5.13	7.40	-0.72	0.01	-0.52519	-0.5988	-0.90857	-1.00025	-0.63686	-0.80009	3.61	4.49	7.99	13.47	-0.74	0.02
O86Z22	Epididymis secretary protein L29	HELS-S-297	2.67	1.379692	0.580399	2.143443	1.704767	1.675466	1.721421	38.20	21.34	2.25	29.95	1.53	0.03	1.887952	0.547836	1.455585	0.739185	1.504093	1.267363	61.33	34.41	11.58	9.29	1.23	0.00
O8I2Z9	Tubulin, beta 2C	TUBB2C	54.83	-1.6651	-1.64149	-0.73776	-0.85478	-1.41213	-1.67265	1.16	5.73	12.73	34.40	-1.33	0.04	-1.57361	-1.81631	-1.14664	-0.91261	-1.43859	-1.77716	11.87	11.45	16.52	26.36	-1.44	0.02
O8I2T6	Putative uncharacterized protein (Fragment)	NA	7.00	-0.5285	-0.61333	-1.39407	-1.34116	-1.00736	-0.96979	4.16	2.59	1.84	27.56	-0.98	0.05	-0.94244	-0.70472	-1.4876	-1.89984	-0.91405	-0.8798	9.32	20.07	3.00	34.85	-1.07	0.08
O8I2VX7	Ribosomal protein S19 (Fragment)	NA	4.00	1.042478	0.342435	0.676282	0.578868	0.576208	0.562171	33.65	5.80	1.49	5.71	0.63	0.00	1.152781	0.440538	0.717460	0.43409	0.463731	0.603998	34.22	13.85	6.64	11.62	0.64	0.02
R5S1B6	EPHX1	EPHX1	1.83	0.26253	0.39543	-0.84176	-0.31896	-0.46132	-0.51348	19.32	28.56	5.7	19.32	-0.39	0.12	0.00615	-0.06452	-0.87109	-0.46284	-0.34272	-0.27449	2.96	20.16	4.32	21.16	-0.34	0.26
V9HW12	Epididymis secretary sperm binding protein L2a	PRDX2	18.50	-1.33359	-1.41605	-1.45472	-1.15119	-1.26143	-1.10006	4.04	14.92	7.90	6.87	-1.29	0.00	-1.6472	-1.57596	-1.55739	-1.35821	-1.93471	-1.80607	3.49	9.75	6.30	14.22	-1.65	0.01
V9HW21	Epididymis luminal protein 76	CA2	21.50	-2.24975	-2.1827	-2.546	-2.62519	-2.57167	-2.38963	3.29	3.88	8.91	13.46	-2.43	0.00	-2.30429	-2.39006	-2.01347	-1.81926	-2.49227	-2.22036	4.80	9.50	13.29	18.79	-2.21	0.00
V9HW22	Epididymis luminal protein 33	HSPA8	35.50	-1.1382	-1.9134	0.292852	0.243798	0.001188	0.037939	3.80	2.40	1.80	14.81	0.05	0.75	-0.14317	-0.14159	0.342182	0.431743	-0.16732	-0.16578	0.08	4.38	0.08	22.86	0.03	0.90
V9HW24	Epididymis secretary protein L73	HELS-S-73	1.83	1.254925	-0.12195	1.818106	-0.03779	0.247152	0.619778	62.79	80.20	18.16	25.81	0.63	0.04	1.005468	0.398694	1.560548	0.49104	1.048193	0.404131	29.31	50.14	31.05	15.61	-0.82	0.02
V9HW26	ATP synthase subunit alpha	ATPSA1	50.50	-0.08807	-0.26083	-0.91583	-1.03374	-1.084937	0.054093	8.46	5.78	6.10	35.46	-0.40	0.00	-0.21409	-0.19861	-1.02579	-1.1847	0.350226	0.184163	0.76	7.78	8.13	43.79	-0.35	0.48
V9HW27	Crystallin, alpha B, isoform CRA_a	CRYAB	7.50	0.659075	0.395929	0.143683	0.24313	1.218964	0.094734	12.86	8.87	6.57	34.71	0.62	0.16	0.885226	0.716504	0.451519	0.689039	1.140096	1.155232	8.26	11.62	0.74	20.26	0.84	0.04
V9HW31	ATP synthase subunit beta	ATPSB	65.17	-0.92464	-0.93214	-1.75197	-1.90832	-1.07407	-0.93739	0.37	7.65	5.72	30.60	-1.26	0.05	-0.94244	-0.83034	-1.2933	-2.05898	-0.71922	-0.6955	5.49	6.17	1.16	40.90	-1.20	0.10
V9HW32	Epididymis secretary protein L55	HELS-S-55	11.00	0.084404	0.3136	-0.46167	-0.29837	-0.0023	0.046312	7.31	10.24	3.85	20.19	-0.06	0.06	0.147843	0.387114	-0.29123	-0.2497	0.645791	0.001391	16.55	2.49	4.28	18.45	-0.03	0.55
V9HW43	Epididymis luminal protein L102	HSPB1	8.00	0.834902	0.992387	0.604448	0.408549	0.640775	0.555071	11.77	9.58	5.18	15.06	0.64	0.00	0.624728	0.778966	0.560204	0.493883	0.372337	0.314695	5.55	8.75	2.87	12.70	0.56	0.04
V9HW53	Dimethylarginine dimethylaminohydrolase 2, isoform CRA_a	DDAH2	3.50	-0.13183	-0.13148	0.341567	-0.78	-0.16393	-0.05811	0.02	52.36	5.18	0.81	-0.15	0.04	0.309782	-0.26749	0.417197	0.239202	0.059746	-0.45289	27.92	7.86	24.86	17.66	0.05	0.04
V9HW55	Epididymis secretary protein L275	HELS-S-275	2.17	0.624507	0.398523	1.005291	0.76519	0.110366	0.32667	11.05	11.74	10.58	23.35	0.54	0.11	0.503531	0.569825	1.01548	0.932453	0.252763	0.555293	3.25	4.07	14.77	21.30	0.64	0.07
V9HW56	Epididymis secretary protein L108	TPM4	8.50	0.68854	1.303358	0.385245	1.639843	0.598528	0.49687	25.90	57.89	4.98	20.88	0.87	0.03	0.465157	1.272935	1.078668	2.211355	1.583032	0.875413	38.59	52.83	34.00	29.17	1.25	0.03
V9HW71	Endoplasmic reticulum resident protein 29	ERP29	6.50	2.68826	2.181228	-0.0219	-0.0618	0.212946	0.818778	24.60	1.96	29.26	93.89	0.97	0.33	2.610087	2.198027	1.52585	-0.03836	0.305249	0.139381	20.06	9.35	8.			

UniProt	Protein name	Gene name	Peptide mean	08/017 HESC-RPE to hRPE						Biological CV	Fold change (mean)	Unadjusted p-value (t-test)	08/023 HESC-RPE to hRPE						Biological CV	Fold change (mean)	Unadjusted p-value (t-test)						
				Analysis									Technical replicate CV			Analysis						Technical replicate CV					
				1.1	1.2	2.1	2.2	3.1	3.2				1	2	3	1.1	1.2	2.1				2.2	3.1	3.2	1	2	3
P20674	Cytochrome oxidase subunit 5A, mitochondrial	COX5A	5.50	0.534416	-0.39194	-1.09221	-1.71408	-1.32795	-1.2426	43.91	30.02	4.18	64.35	-0.87	0.21	0.91806	-0.21744	-0.53669	-1.84896	-1.3977	-0.89047	52.95	60.22	24.61	67.52	-0.66	0.32
P20700	Lamin-B1	LMNB1	10.67	-0.35836	-0.17389	0.392936	0.358453	-0.75509	0.954853	9.03	16.49	75.20	22.90	0.07	0.74	-0.46588	-0.07068	-0.23145	0.106735	-0.98376	-0.19245	19.25	16.50	37.84	16.50	-0.46	0.38
P21333	Filamin-A	FLNA	38.83	1.279703	1.27822	1.027436	0.960179	0.79485	1.030971	0.07	3.30	11.55	13.57	1.06	0.01	1.270175	1.293218	1.450871	1.393843	1.132476	1.327719	1.13	2.79	9.55	6.91	1.31	0.00
P21964	Catechol O-methyltransferase	COMT	4.17	-0.00296	-0.03516	0.291553	0.388972	0.124156	-0.58928	1.58	4.77	34.27	19.24	0.03	0.88	0.54076	0.341408	0.393751	0.321676	-0.43663	-0.6281	9.76	3.53	3.97	62.92	0.90	0.80
P22695	Cytochrome b-c1 complex subunit 2, mitochondrial	UOCCR2	13.50	-0.167695	-0.43929	-0.79318	-0.9709	-0.62414	-0.82556	12.82	8.70	9.86	21.39	0.62	0.07	-0.72077	-0.62984	-0.86321	-0.84759	-1.39607	-0.45201	4.46	0.77	44.69	7.23	-0.82	0.01
P35398	Z65 proteorhizolium subunit 7	PSMC2	2.67	0.382338	-0.523	1.035475	2.071931	0.280219	0.490949	42.97	48.72	10.31	63.42	0.64	0.33	-0.23431	0.40463	1.251668	1.070065	-0.00165	1.094883	14.43	9.06	51.30	41.20	0.54	0.28
P36375	α-tubulin-β	TUBB1	8.33	-0.7526	-0.91577	-0.66535	-0.21477	-1.23626	7.73	8.52	24.35	30.69	-0.80	0.18	-0.81477	-0.89608	-0.71173	-0.25252	-0.85133	-1.073	3.98	28.48	11.67	16.24	0.72	0.02	
P39564	Dolichyl-diphosphooligosaccharide-protein glycosyltransferase 48 kDa subunit	NRFC	4.50	0.488433	0.11787	0.04523	0.22497	0.623948	0.812274	18.12	13.17	9.22	22.52	0.37	0.16	0.239136	0.129227	-0.03406	-0.1173	0.604947	0.78821	5.38	4.10	1.71	27.80	-0.27	0.46
P46459	Vesicle-fusing ATPase	NSF	4.00	-0.41827	-0.305	-0.08854	0.159685	-0.48362	-1.0913	18.63	12.14	29.35	26.61	-0.32	0.31	-0.18615	-0.2177	0.369471	0.074984	-0.38091	-1.18586	15.56	14.38	38.46	32.27	0.25	0.37
P49419	Alpha-aminoacidic semialdehyde dehydrogenase	ALDH7A1	6.33	0.809743	0.542454	0.585228	0.285924	0.726373	-0.77172	13.06	14.62	67.47	17.80	0.36	0.22	0.542566	0.18078	0.363739	0.311951	0.763271	-0.54797	17.64	2.54	60.20	4.28	0.27	0.08
P49773	Histidine triad nucleotide-binding protein 1	HINT1	2.33	0.513608	0.63496	0.498019	0.510908	0.609656	0.901908	5.94	0.63	14.28	9.42	0.61	0.01	0.563465	0.715162	0.550561	0.915295	0.397929	0.814022	7.38	17.78	20.25	6.4	0.66	0.00
P52272	Heterogeneous nuclear ribonucleoprotein M	HNRNPM	6.50	0.536453	-0.14066	1.122413	0.732243	0.25467	-0.50267	32.59	19.01	12.13	26.99	0.50	0.15	0.62629	-0.01462	0.830202	0.316822	0.075923	-0.14622	30.91	24.90	10.87	21.20	0.28	0.25
P54819	Adenylyl kinase 2, mitochondrial	AK2	7.67	0.637852	-0.09129	-0.6231	-0.35425	0.122102	-0.2044	35.00	13.14	16.73	27.12	0.99	0.73	0.374258	0.125494	-0.71794	-0.36763	0.514987	0.879724	12.16	17.09	10.78	40.22	0.13	0.75
P60174	Triose-phosphate isomerase	TPPI	26.67	-0.14984	-0.15053	0.126547	0.117781	-0.03016	0.322607	0.03	0.43	17.20	11.26	0.04	0.72	-0.06681	-0.17827	0.056067	0.161235	-0.48126	-0.35949	4.30	5.15	6.19	18.78	-0.18	0.37
P63208	S-phase kinase-associated protein 1	SKP1	4.83	-0.14831	-0.21714	0.984276	0.980363	-0.19016	-0.07711	3.16	0.19	5.80	49.48	0.22	0.62	-0.28603	-0.2835	0.094686	1.191935	-0.33376	0.613397	17.57	12.49	35.73	46.67	0.33	0.46
C06830	Peroxylidoxin-1	PRDX1	17.50	0.03262	0.066588	0.110187	0.35907	0.106996	0.038215	1.57	12.17	3.37	7.31	0.12	0.18	0.179438	0.234586	0.125468	0.141009	-0.30487	-0.3915	2.70	0.76	4.20	19.58	0.00	0.99
C08722	Leukocyte surface antigen CD47	CD47	2.33	-1.16168	-1.18702	-1.02097	-1.11534	-1.15083	-1.21412	1.28	4.14	31.10	11.11	0.00	0.00	-1.17943	-0.60683	-0.40554	-1.187	-0.85363	-0.9525	7.00	37.99	4.00	5.58	0.86	0.00
Q13813	SPTAN1	SPTAN1	53.83	-0.03491	-0.4504	-0.34477	-0.34217	-0.58168	-0.44743	6.05	0.13	6.57	6.02	-0.42	0.01	-0.40921	-0.41335	-0.40514	-0.27984	-0.64395	-0.41843	0.20	3.20	11.03	7.42	-0.42	0.01
Q15435	Protein phosphatase 1 regulatory subunit 7	PPP1R7	1.83	-0.15006	-1.30823	-0.49505	-1.34585	-0.76218	-0.81757	53.90	40.53	2.71	8.80	-0.81	0.00	0.223832	-0.95424	-0.89063	-0.03732	-0.2522	0.012046	54.73	40.64	12.92	9.93	-0.32	0.09
Q15835	Rhodopsin kinase	GRK1	6.17	-0.7526	-0.71904	-1.15339	-0.83255	1.000629	-0.61048	1.64	15.66	71.67	55.45	-0.59	0.29	-1.13593	-0.82487	-0.90762	-1.18815	-0.82881	-0.56181	15.19	13.71	10.35	13.30	-0.91	0.01
Q16891	MIC	IMMT	13.83	-0.26174	-0.10817	-0.70412	-0.48798	0.325545	0.606287	7.52	10.57	13.72	38.03	-0.11	0.77	-0.03302	-0.22155	-0.49543	-0.3313	0.524075	0.709101	9.23	8.04	9.06	37.69	0.63	0.94
Q555J5	HP1BP3	HP1BP3	4.83	-1.51297	-1.2538	-2.13756	-2.00753	-1.14556	-1.33656	12.67	6.37	3.75	28.10	0.10	0.03	-1.48079	-1.02198	-1.40353	-1.4881	-1.705	-1.35025	22.30	4.14	17.30	10.43	-1.41	0.00
Q9Y9B4	Sideroflexin-1	SFXN1	3.67	0.12476	-1.75993	-0.00717	0.032458	-0.03516	0.028963	81.15	1.94	3.14	19.94	-0.27	0.43	-0.07096	-1.82643	-0.59054	0.461838	0.004336	0.82482	7.76	79.41	39.16	38.21	-0.20	0.67
C9YU87	Glyoxylate reductase/hydroxypyruvate reductase	GRHRP	3.50	-0.14875	1.821495	0.447212	0.313763	0.582935	0.657451	83.91	6.54	3.65	28.19	0.61	0.04	-0.63626	1.322501	0.554123	0.390285	0.434957	0.786731	83.55	7.42	17.16	67.43	-0.47	0.03
Q93453	Succinate dehydrogenase [ubiquinone] flavoprotein subunit, mitochondrial	SDHA	2.17	0.880202	1.044762	-0.13872	-0.18976	0.981783	0.488534	8.04	2.50	23.94	34.50	0.51	0.28	0.062815	1.034511	-0.15057	0.537853	1.524434	1.489413	45.90	32.12	1.72	47.16	0.75	0.20
AA0424Q20	N-ethylmaleimide-sensitive factor attachment protein, alpha, isoform CRA_c	NDA	5.17	-0.41209	0.610675	-0.40737	0.174944	0.485857	-0.46099	48.13	28.16	44.81	9.52	0.00	0.98	-0.30944	-0.234774	-0.77137	-0.35886	-0.86037	-1.37229	26.36	20.08	35.17	20.66	-0.37	0.16
AA0424R0Y5	ATP-dependent 4-phosphofructokinase	PFKM	8.83	1.104488	-0.53396	-0.64035	0.83217	-0.48109	-0.32624	72.66	66.50	5.78	30.03	-0.01	0.97	0.178631	-0.39093	-0.8059	0.792462	-0.6796	-0.37364	66.39	7.12	14.94	34.02	-0.06	0.83
AA0424R3C5	Apolipoprotein A-I, isoform CRA_a	APOA1	2.33	2.634717	2.317136	1.79476	2.021072	0.964121	0.421314	15.50	11.07	26.30	53.91	1.69	0.08	2.217174	2.231446	1.251878	1.297959	2.338172	1.71849	2.92	2.26	30.20	19.59	1.83	0.02
AA0424R407	Microtubule-associated protein 2	MAP2	5.00	-0.06791	-0.55947	0.639152	0.50609	-0.70364	-0.26858	24.67	6.52	21.16	52.68	0.62	0.62	-0.96694	-0.46899	1.229713	0.158072	-0.87244	-0.23641	25.59	50.24	30.68	61.45	-0.20	0.70
AA0424R6Y2	Nuclear transport factor 2, isoform CRA_a	NTF2	2.00	0.782079	0.676447	0.416561	0.635097	0.728146	1.284069	5.17	10.69	26.92	17.77	0.75	0.00	0.732708	0.602702	0.619222	0.652581	0.786198	0.999358	6.37	1.63	10.43	10.08	0.73	0.01
AA0424R713	Dihydropyridyl dehydrogenase	RBD	10.67	-0.49566	-0.34537	-1.13931	-1.07091	0.228302	0.216161	7.36	3.35	0.60	44.49	-0.43	0.37	-0.41387	-0.34626	-1.44151	-0.90267	-0.04729	-0.19539	3.31	26.11	7.25	33.54	-0.56	0.22
AA0424R845	RAB14, member RAS oncogene family, isoform CRA_a	RAB14	5.67	-0.40738	-0.94854	-0.04223	0.274788	-0.1014	-0.2421	26.22	12.56	6.89	25.01	-0.25	0.37	-1.03911	-0.68651	-0.20848	0.078574	-0.15737	-0.71399	16.78	10.23	26.95	28.10	-0.44	0.21
AA0424R924	Beta-ketoylate-binding protein	KPCT	4.17	-0.27797	0.73556	0.73547	1.26557	0.046627	0.57749	4.71	23.12	22.18	14.09	0.82	0.02	0.782475	0.412004	0.88919	1.09196	0.66626	0.019884	19.06	20.00	29.21	22.78	0.64	0.08
AA0424R9U3	OCL1 domain containing 1, isoform CRA_a	OCLAD1	2.00	0.016247	0.196176	0.210492	-0.02298	0.914703	1.340186	8.81	11.42	20.70	45.07	0.44	0.33	0.513038	0.920493	0.03198	0.07375	0.66628	0.991518	20.30	10.4	15.86	30.20	0.50	0.21
AA0424R9A6	Beta-hexosaminidase	HEXB	3.17	0.844252	0.88852	0.339474	0.209326	-0.24643	-0.49092	1.19	6.37	7.96	39.99	0.27	0.52	-0.22891	0.45057	0.071582	0.538027	0.122443	-0.16266	32.70	22.66	19.93	11.67	0.13	0.01
AA0424R818	Retinol dehydrogenase 5 (11-cis and 9-cis), isoform CRA_a	RDH5	10.67	-1.29058	-1.17797	-1.12017	-1.16887	-1.12927	-1.23327	5.52	2.39	5.10	30.39	-1.19	0.00	-1.30267	-1.04681	-1.53375	-1.03603	-0.97601	-1.2732	12.51	24.16	14.51	5.11	-1.19	0.00
AA0424R875	Citrate synthase	CS	14.00	-0.54852	-0.86872	-1.73599	-1.76872	-0.66944	-1.21839	15.63	16.00	26.59	34.11	-0.17	0.07	-0.57003	-0.90101	-1.75344	-1.73873	-0.8846	-1.21141	16.15	0.72	15.95	33.38	-1.19	0.00
AA0424R7WV4	Neural cell adhesion molecule 1	NCAM1	9.33	-1.64157	-1.37608	-1.16463	-1.99172	-1.59852	-1.40415	12.98	39.46	9.51	47.79	-1.53	0.00	-1.60994	-1.32237	-1.1156	-1.61918	-1.89111	-1.69584	14.05	24.43	9.56	15.42	-1.34	0.01
AA040A0MSE2	Hydroxacyl-coenzyme A dehydrogenase, mitochondrial	HADH	3.50	1.307645	1.007668	0.218487	0.026	-0.1014	0.581095	14.65	9.42	32.84	81.73	0.73	0.26	1.140111											

UniProt	Protein name	Gene name	Peptide mean	08/107 HESC-RPE to hRPE												08/023 HESC-RPE to hRPE											
				Analysis						Technical replicate CV			Biological CV	Fold change (mean)	Unadjusted p-value (t-test)	Analysis						Technical replicate CV			Biological CV	Fold change (mean)	Unadjusted p-value (t-test)
				1.1	1.2	2.1	2.2	3.1	3.2	1	2	3				1.1	1.2	2.1	2.2	3.1	3.2	1	2	3			
O8NTCS	HSPA9 protein (Fragment)	HSPA9	21.80	0.908373	0.422091	-0.55688	-0.361	0.061238	23.61	9.59	NA	39.53	0.09	0.81	0.78591	0.258178	-0.79884	-0.67449	0.295341	25.58	6.09	NA	40.55	-0.03	0.95		
O9B1T5	Similar to NADH dehydrogenase (Ubiquinone) 1 alpha subcomplex, 9 (39kD) (Fragment)	NA	5.80	-0.68648	-0.12112	-0.12913	-0.19944	-0.41735	27.36	5.86	NA	27.47	-0.20	0.72	-0.45053	-0.35713	-1.63151	-0.88299	-2.74464	37.58	35.99	NA	82.00	-0.11	0.21		
Y9HW58	Epididymis secretory protein Li 77	DCTN2	4.20	0.239584	0.346322	0.111169	-0.64484	-0.46691	5.23	36.23	NA	7.75	-0.08	0.58	-0.18515	-0.26882	-0.22729	-0.14481	-0.40645	4.10	4.04	NA	7.98	-0.25	0.06		
O8NSK1	CDGSH iron-sulfur domain-containing protein 2	CISD2	1.40	-0.39232	-0.24372	-0.72588	-0.34685	-0.39053	7.59	18.47	NA	27.30	-0.07	0.60	-0.45563	0.0	-0.60933	-0.72574	-0.6433	22.15	5.00	NA	18.63	-0.49	0.07		
O9NOC3	Reticulon-4	RTN4	6.00	0.528151	-0.91988	-0.77583	-0.96471	-1.27152	65.56	9.24	NA	46.00	-0.68	0.13	-0.325	-0.89444	-0.46507	-0.67691	-1.05457	27.55	30.36	NA	18.06	-0.68	0.04		
O9P0J0	NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 13	NDFU13	2.80	0.024785	-0.84978	-0.87783	-0.26472	-0.70159	41.60	17.23	NA	23.96	-0.73	0.16	0.536324	-0.66226	-0.88081	-1.60837	-1.17921	56.75	74.32	NA	15.06	-0.75	0.17		
AA024R02	Complement factor 1	CF1	1.00	1.771221	1.565804	0.974898	0.405785	2.067198	70.09	16.15	NA	27.63	1.58	0.27	1.630888	1.188535	1.596808	1.442842	2.369161	31.16	7.54	NA	35.86	1.69	0.02		
AA04Z1	CADM1 protein	CADM1	3.80	0.105545	-0.71094	0.536537	-0.54684	-0.98477	8.41	50.74	NA	29.49	0.45	0.20	0.455322	-0.52085	-0.21573	-0.50771	-0.55107	1.44	73.06	NA	20.84	-0.86	0.09		
B3KSH1	Eukaryotic translation initiation factor 3 subunit F	EIF3F	1.20	-0.56852	-0.1438	0.477986	-1.18436	-2.14278	20.67	73.52	NA	57.01	-0.21	0.25	-0.44814	-0.00995	-0.54848	-0.30051	-0.83618	21.31	12.12	NA	21.13	-0.43	0.20		
D6R1E3	Cytochrome c oxidase subunit 7A2, mitochondrial	COX7A2	2.60	-0.62569	-0.7987	-1.89252	-1.52544	-1.11103	8.47	17.90	NA	50.19	-0.99	0.21	-0.83652	-0.98487	-1.70221	-1.50519	-0.91313	7.27	9.64	NA	25.11	-1.19	0.04		
HOYDL9	Transferrin (Fragment)	CDB1	1.00	-0.21392	-0.06782	0.233219	0.121664	0.2488	7.15	5.46	NA	13.77	0.06	0.51	-1.03684	-0.12179	-0.96673	-0.57303	0.565324	43.40	19.18	NA	52.29	-0.43	0.59		
O15537	Retinoschisin	RS1	3.80	-0.74697	-0.54167	-1.40597	-1.05166	-0.52117	10.05	17.28	NA	23.90	-0.85	0.07	-0.3272	-1.25718	-0.19362	-1.32243	-0.78895	44.07	52.67	NA	4.80	-0.78	0.00		
O60262	Guanine nucleotide-binding protein G(I)/G(S)/G(O) subunit gamma-7	GNG7	1.00	0.332871	-0.41782	-0.94513	-0.85812	-0.36203	35.99	4.26	NA	30.34	-0.45	0.22	0.251337	-0.10184	-1.96327	-1.44624	-1.19612	58.20	25.07	NA	52.40	-1.07	0.11		
O75475	PC4 and SFRS1-interacting protein	PSP1	2.80	-1.58496	-1.40696	-1.37401	-1.01817	-1.79551	8.71	17.35	NA	26.63	-1.22	0.04	-0.26912	-1.28216	-0.7406	-0.94285	-0.81207	37.64	9.90	NA	35.08	-1.17	0.06		
P15531	Nucleoside diphosphate kinase A	NME1	7.00	-0.33409	-1.45872	-0.21266	-0.67651	-0.9357	52.49	22.54	NA	45.73	-0.92	0.13	-0.22916	-1.713	-0.051	-0.08337	-0.9675	66.93	14.59	NA	28.52	-0.61	0.16		
P161515	Sarcoplasmic/endoplasmic reticulum calcium ATPase 2	ATP2A2	6.40	0.197116	0.483492	0.173602	0.011165	-0.20866	14.03	7.95	NA	18.99	0.13	0.68	0.45975	0.52241	0.725932	-0.15306	-0.00784	3.31	21.17	NA	21.17	0.19	0.45		
P62136	Serine/threonine-protein phosphatase PP1-alpha catalytic subunit	PPP1CA	3.20	0.905717	0.014731	0.765907	0.362765	0.795598	8.41	19.44	NA	23.27	0.43	0.14	0.450781	0.347104	0.627074	0.936808	0.67497	15.91	9.17	NA	15.91	0.21	0.36		
O5TZA2	RhoGDIin	RHOCC	10.80	0.062437	0.549085	-0.47097	-1.16827	1.841	33.53	NA	43.24	-0.24	0.54	-0.00637	0.347483	-0.33585	-1.1202	0.202141	17.26	37.52	NA	30.72	-1.18	0.74			
OZ7H55	Transmembrane emp24 domain-containing protein 4	TMED4	2.20	0.487591	0.438293	0.032498	0.01769	0.235257	2.42	0.73	NA	15.19	0.24	0.20	0.586423	-0.07021	0.975499	0.000252	0.560673	31.64	46.06	NA	10.44	-0.41	0.04		
O9H2U2	Inorganic pyrophosphatase 2, mitochondrial	PPA2	5.40	-0.1151	-0.04806	0.103638	0.205216	-0.06017	3.29	6.95	NA	32.10	0.20	0.56	0.622452	-0.18026	-0.50977	-0.20506	0.164431	38.36	15.10	NA	21.53	-0.02	0.96		
O9UHO9	NADH-cytochrome b5 reductase 1	CYBSR1	4.20	-0.27454	-0.62881	-0.49805	-0.197	-0.75875	17.28	14.70	NA	14.60	-0.47	0.05	-0.1019	-0.3697	0.004548	0.061264	-1.10074	13.09	2.78	NA	62.55	-0.30	0.33		
AA024R1U4	RAB5C, member RAS oncogene family, isoform CRA_a	RAB5C	4.20	-0.92726	-1.56817	-0.20409	-0.69859	1.101363	30.91	24.00	NA	82.54	-0.46	0.00	-2.51357	-1.57727	-0.20117	-0.69886	0.213449	44.35	24.15	NA	36.94	-0.96	0.37		
AA0807W2X2	NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit 6	NDFU6	1.20	0.369139	-0.19721	-0.56862	-1.22015	-0.29643	27.41	31.48	NA	32.49	-0.38	0.33	0.65927	-0.24251	-0.67206	-1.87464	-0.37836	48.21	55.75	NA	17.22	-0.50	0.38		
BZK761	cDNA, FLJ93299, highly similar to Homo sapiens sterol carrier protein 2 (SCP2), mRNA	NA	5.00	0.28675	0.485969	0.197837	0.004085	1.38319	10.05	9.40	NA	49.68	0.47	0.25	0.596457	0.674459	0.538416	0.487984	0.981469	3.82	2.47	NA	47.34	-0.66	0.04		
B4DLN1	Uncharacterized protein	NA	2.40	-0.22045	0.489624	-0.60404	-0.2958	0.383786	14.58	15.05	NA	27.54	-0.05	0.94	-0.05016	0.998577	-1.24218	-0.98608	-0.59118	49.26	16.88	NA	60.94	-0.36	0.48		
B4E1S3	cDNA FLJ57860, highly similar to Transmembrane protein 109	NA	1.40	-0.11553	0.188024	0.268414	-0.09493	0.405649	6.82	17.71	NA	13.95	0.13	0.27	-0.0853	-0.01895	-0.42317	-0.50663	0.355595	3.40	5.76	NA	26.71	-0.12	0.88		
B7Z4V9	cDNA FLJ57541, highly similar to Skeletal muscle and kidney-enriched inositol phosphatase (EC 3.1.3.56)	NA	2.60	0.017997	-0.22046	-0.44116	-0.41622	0.458814	11.66	12.22	NA	31.80	-0.22	0.94	0.087978	-0.07624	-0.92962	-0.24832	0.817793	8.04	32.59	NA	48.15	-0.07	0.20		
E9PEB5	Far upstream element-binding protein 1	FUBP1	3.00	1.535095	0.976653	1.503732	1.750222	1.036149	27.03	12.05	NA	21.01	1.36	0.02	1.180888	0.928514	1.24057	1.493551	1.009602	12.34	12.37	NA	14.08	-1.17	0.01		
HOY109	Methyltransferase-like protein 7A (Fragment)	METTL7A	1.20	-1.45246	-0.82771	-0.68482	-1.49986	0.869631	30.15	38.92	NA	84.20	-0.72	0.56	-1.52488	-0.85764	0.205776	-0.57641	-0.45847	32.13	32.42	NA	33.42	-0.64	0.18		
H7C1U8	MIC	APOO	1.60	-0.27121	-0.29933	-0.93142	-0.93921	-0.27524	1.38	0.38	NA	23.99	-0.54	0.15	0.091479	-0.0357	-0.8911	-0.52576	-0.19367	6.23	17.81	NA	24.41	-0.31	0.31		
CS5G17	NADH dehydrogenase (Ubiquinone) Fe-S protein 8, 23kDa (NADH-coenzyme Q reductase) variant (Fragment NA)	NA	1.60	-0.36316	-0.20397	-0.55649	-0.99172	-0.84548	7.79	21.17	NA	22.93	-0.07	0.07	-0.75697	-0.17329	-0.58988	-1.00025	0.224486	28.22	21.47	NA	36.10	-0.45	0.37		
CS5GF8	Isocitrate dehydrogenase [NAD] subunit, mitochondrial (Fragment)	NA	7.00	-0.2201	-0.4629	-0.62228	-0.69399	-0.77221	11.87	3.51	NA	16.11	-0.55	0.04	-0.39214	-0.51171	-0.79884	-0.88765	-0.59862	5.86	4.33	NA	13.46	-0.64	0.03		
CS5X12	V-type proton ATPase subunit a	NA	7.80	-0.27216	-0.31719	-0.50254	-0.74709	-0.36467	2.21	12.05	NA	11.54	-0.44	0.05	-0.76365	-0.77651	-0.34804	-0.60031	-0.4233	6.35	12.35	NA	12.57	-0.58	0.04		
CS5Z19	Amino oxidase [flavin-containing]	MAOA	3.20	-1.40165	-1.19147	-1.15516	-1.72443	-1.00263	7.99	0.85	NA	6.90	-1.17	0.00	0.076595	-0.78051	-0.82231	-0.79044	38.92	24.1	NA	30.16	-0.74	0.04			
CS5ZU9	Tripeptidyl-peptidase 2	TPP2	3.80	-0.8397	-0.23134	-0.43649	-0.95868	-0.18343	19.09	30.09	NA	45.94	-0.48	0.28	-1.30028	-0.47205	-0.35806	-0.74972	0.463637	0.03	0.08	NA	62.76	-0.68	0.46		
O6FGB3	PCBD protein (Fragment)	PCBD	2.80	0.54057	0.068037	0.813363	0.516322	-0.75041	23.22	14.49	NA	44.29	0.24	0.88	0.401222	0.247266	0.684943	0.465498	-0.98689	7.54	10.81	NA	47.63	-0.16	0.93		
O6FHU3	PSME1 protein (Fragment)	PSME1	2.60	0.623996	0.470297	-0.06035	0.441167	-0.18042	7.53	24.34	NA	24.87	0.26	0.47	1.156717	-0.00995	-0.34161	0.008555	0.136462	54.26	17.08	NA	30.59	-0.19	0.49		
O6IAQ1	LYPLA1 protein	LYPLA1	4.20	0.41548	-0.07981	-0.55104	-0.18316	0.279593	24.04	17.93	NA	22.12	-0.02	0.91	-0.12752	0.280121	-0.54885	-0.696	0.294762	19.85	7.21	NA	30.31	-0.16	0.79		
QBWVJ5	Protein kinase C inhibitor-2	NA	2.60	-0.99078	-1.62207	-0.60646	-1.1017	-0.82181	30.46	24.04	NA	16.81	-1.03	0.02	-0.93279	-2.43464	-0.54294	-1.14733	-0.68823	67.61	29.20	NA	27.43	-1.15	0.07		
P08247	Synaptophysin	SYP	3.40	-1.13723	-1.7484	-0.9631	-1.76783	-0.18165	29.52	38.45	NA	17.31	-1.08	0.01	-1.22583	-1.90101	-0.92721	-1.54293	-1.89087	32.50	29.73	NA	24.53	-1.50	0.01		
P21912	Succinate dehydrogenase [ubiquinone] iron-sulfur subunit, mitochondrial	SDHB	1.60	-0.8077	-1.24073	-1.43076	-2.39007	-0.98533	21.07	45.36	NA	38.11	-1.30	0.09	-0.67632	-0.76074	-1.47982	-1.36016	-0.4256	4.14	5.86	NA	32.56	-0.94	0.10		
AA024R8T0	Integrin beta	ITGBA	2.20	1.472631	1.594711	1.434225	2.570083	1.945228	5.95	52.36	NA	19.63	1.80	0.01	1.325605	1.081709	0.927328	2.058359	2.515707	11.93	51.49	NA	48.50	1.59	0.05		
AA024R0C9	Hydroxybutyrate dehydrogenase, type 2, isoform CRA_b	BDH2	3.80	0.5114	0.321972	0.379959	0.799248	0.381248	2.89	24.81	NA	12.21	0.11	0.04	0.423743	0.202149	-0.21099	0.321401	0.4715	19.61	28.40	NA	28.40	0.45	0.48		
B1																											

UniProt	Protein name	Gene name	Peptide mean	08/017 HESC-RPE to hRPE						08/023 HESC-RPE to hRPE						Fold change (mean)	Unadjusted p-value (t-test)										
				Analysis						Technical replicate CV			Biological CV	Analysis						Technical replicate CV			Biological CV				
				1.1	1.2	2.1	2.2	3.1	3.2	1	2	3		1.1	1.2			2.1	2.2	3.1	3.2	1		2	3		
K7L7C7	60S ribosomal protein L27 (Fragment)	RPL27	1.20	0.5154	0.220493	1.613635	1.183829	0.682852	14.40	NA	24.31	42.52	0.84	0.11	0.569247	0.554753	1.349275	1.09415	0.712763	0.71	NA	18.58	27.44	0.86	0.05		
P04271	Protein S100-B	S100B	2.40	-0.18611		0.516666	-0.13518	-0.58482	-0.57426	NA	31.42	0.52	27.79	-0.19	0.48	2.362759	1.477197	1.572883	0.486047	0.675179	NA	4.69	9.26	57.88	1.31	0.10	
P04844	Dolichyl-diphosphooligosaccharide-protein glycosyltransferase subunit 2	RPN2	7.20	0.903646		0.163934	-0.03914	0.390969	0.449531	NA	9.94	2.87	29.45	0.37	0.20	1.256116	0.280407	-0.23223	0.610446	0.503073	NA	21.43	5.26	43.46	0.24	0.24	
P16401	HIST1H1B	HIST1H1B	5.40	1.29687		1.619964	1.947181	1.535453	2.209149	NA	15.97	32.43	21.19	1.72	0.01	1.599353	0.849711	0.860893	0.25862	0.045208	NA	0.55	14.84	57.41	0.62	0.25	
Q15147	Calpain-3	CNN3	2.40	-0.04661		0.150863	0.426334	0.289285	0.500371	NA	13.46	10.33	15.51	0.26	0.25	1.006668	0.300662	1.083107	-0.2071	0.076204	NA	37.45	13.84	34.51	0.45	0.23	
Q8N142	Adenylysuccinate synthetase isozyme 1	ADSS1	5.00	1.800788		1.573164	2.225313	0.245973	1.138237	NA	31.43	42.39	38.16	1.40	0.06	1.369856	1.122449	1.982673	0.702395	0.740579	NA	40.96	1.87	29.59	1.18	0.08	
AA024R203	ADP-ribosylation factor 1, isoform CRA_a	ARF1	6.00	-0.42586		0.206822	0.234932	-0.55289	-1.00538	NA	1.45	22.00	35.95	-0.31	0.01	-0.43712	-0.127744	0.176053	-0.31641	-0.52192	NA	14.82	10.06	19.22	0.26	0.21	
AA024R648	Tryptophanyl-RNA synthetase, isoform CRA_a	WARS	2.20	0.328331		0.165826	0.338993	-0.08693	0.530526	NA	8.48	29.81	29.27	0.01	0.01	0.771212	0.311923	0.00749	0.238636	-0.22636	NA	11.49	22.60	11.98	0.15	0.21	
AA024R834	Pirin (iron-binding nuclear protein), isoform CRA_a	PIR	1.20	1.10522		0.019984	0.549246	0.3034	0.653772	NA	13.23	17.09	22.37	0.69	0.05	1.125421	0.013852	1.069824	-0.39798	-0.18148	NA	49.56	10.59	44.86	0.38	0.28	
A8K4W8	cDNA FLJ7917, highly similar to Homo sapiens ubiquitin-conjugating enzyme E2L 3 (UBE2L3), transcript va NA	NA	2.40	0.127465		0.163224	0.117538	-0.97512	-0.61027	NA	2.24	17.79	32.16	-0.24	0.63	0.337446	0.628091	1.004913	-0.27304	-0.1998	NA	18.36	3.59	35.83	0.30	0.42	
B4DM2A	cDNA FLJ54023, highly similar to Heat shock protein HSP 90-beta	NA	27.00	0.332402		0.510353	0.764104	0.240186	-0.17594	NA	12.41	20.26	20.63	0.33	0.20	0.220826	0.411363	0.399498	0.10966	-0.17156	NA	0.58	13.74	14.74	0.14	0.26	
B4D7A2	cDNA FLJ60148, highly similar to Homo sapiens heterogenous nuclear ribonucleoprotein D-like (HNRPDL), NA	NA	4.60	-0.58467		0.123262	-0.46124	0.595201	-0.0922	NA	28.69	33.07	29.92	-0.08	0.56	-0.49246	0.126859	-0.38433	0.044388	0.02494	NA	32.80	0.95	18.10	-0.14	0.34	
ESR199	60S ribosomal protein L30 (Fragment)	RPL30	2.00	-0.4835		-0.23526	0.552126	-0.27253	0.635784	NA	37.66	43.10	26.00	0.04	0.85	0.241918	-0.38424	0.297651	-0.61864	0.535783	NA	24.81	5.74	8.84	0.01	0.64	
FSH2F4	1-C-tetrahydrofolate synthase, cytoplasmic	MTHFD1	1.60	0.050864		0.334017	-0.03563	-0.06264	-0.02739	NA	18.02	1.73	7.16	0.05	0.45	0.012871	0.529327	0.316011	-0.15046	-0.47742	NA	10.44	15.96	25.62	0.40	0.87	
Q72X33	Purative uncharacterized protein DKFZp686E12166	DKFZp686E12166	4.60	1.304062		0.616978	0.502931	1.207206	1.026676	NA	15.33	8.84	21.55	0.97	0.03	1.155931	0.459639	0.47751	1.451534	0.974513	NA	0.88	23.17	26.48	0.90	0.06	
Q72Y53	Small nuclear ribonucleoprotein Sm D1	SNRPD1	1.00	-0.97617		0.617129	1.164858	-1.37105	-1.3852	NA	16.96	0.69	92.29	-0.35	0.60	-0.84122	0.54814	0.731302	0.808075	-0.85055	NA	8.97	2.05	64.63	-0.24	0.56	
Q8TAS0	ATP synthase subunit gamma (Fragment)	NA	8.40	-0.52595		-1.60929	-1.33384	-0.7796	-1.11927	NA	13.46	16.57	31.59	-1.07	0.07	-0.49303	-1.537	-1.9805	0.53447	-0.47891	NA	9.3	2.72	34.91	0.90	0.20	
Q9A91	RPS4X protein (Fragment)	RPS4X	1.80	0		0.068078	-0.027	0.033644	0.645484	NA	4.66	29.55	15.01	0.14	0.39	0.326453	0.337383	0.014563	0.23776	0.105951	NA	15.76	6.46	6.01	0.20	0.05	
U3K0K0	Histone H2B	HIST1H2BN	19.20	-2.80873		-1.77148	-2.28355	-0.10383	-0.83007	NA	27.68	8.99	64.27	-1.73	0.07	-1.88304	-1.12827	-1.45937	1.27654	-1.23238	NA	16.16	2.16	22.65	-1.40	0.02	
U15260	Surfeit locus protein 4	SURF4	3.00	0.520623		0.65051	0.510353	-0.1026	0.973543	NA	6.86	50.43	2.26	0.51	0.01	0.621456	0.163472	0.087626	0.64499	0.284955	NA	3.72	10.78	17.22	-0.20	0.19	
P60866	40S ribosomal protein S20	RPS20	2.60	0.359965		0.648144	0.255992	0.841701	1.048022	NA	19.10	10.10	22.77	0.63	0.08	0.962597	0.741564	0.703988	0.800753	0.23125	NA	1.84	27.56	14.67	0.69	0.03	
Q9H0U4	RAB18 protein (Fragment)	RAB18	6.80	-1.39232		-0.18197	-0.75087	-0.29225	0.036975	NA	27.53	16.07	40.41	-0.52	0.22	-0.34101	-0.81923	-0.67732	-1.10929	-0.44209	NA	6.95	32.13	16.72	-0.68	0.05	
A8MUJ2	Small ubiquitin-related modifier 3	SUMO3	1.00	-0.4263		0.268414	0.41481	-0.72983	-0.60811	NA	32.87	5.96	22.61	-0.38	0.15	-0.63354	-0.41024	-0.00025	-0.64362	-1.11551	NA	19.96	22.92	24.25	-0.56	0.10	
F27348	14-3-3 protein theta	YWHAQ	8.80	0		0.593291	1.080665	-0.39319	-0.33958	-0.99802	NA	66.55	31.72	40.03	-0.01	0.84	0.262594	0.993787	-0.0791	0.67567	-0.17833	NA	50.29	12.21	20.68	0.20	0.02
AA024R529	Pyruvate kinase	PKM2	64.80	0		-2.15032	-1.56313	-1.58272	-1.62802	-1.86626	NA	0.96	11.75	19.67	-1.76	0.01	-2.58518	-1.72629	-1.86266	-1.65465	-1.9759	NA	6.68	15.68	28.19	-1.96	0.02
B2R4M6	Protein S100	NA	2.20			-0.53341	-1.98077	-1.73938	-2.31433	-2.80467	NA	12.11	72.32	-1.88	0.11	0.153897	-1.67491	-1.12734	-0.32070	-2.4691	NA	24.61	27.48	91.20	-1.63	0.25	
B4DSW9	cDNA FLJ59415, highly similar to Beta-catenin	NA	4.60	0		0.313399	0.286564	-0.40955	0.165624	0.361408	NA	33.47	9.58	12.06	0.14	0.28	1.383824	0.443167	-0.80332	0.103032	-0.11314	NA	57.56	5.96	62.66	0.18	0.52
D9W19P	Beta-2-glycoprotein 1 (Fragment)	NA	1.20	1.300894		1.435892	1.161807	1.952719	2.087996	NA	13.99	6.63	30.68	1.59	0.02	1.318884	0.788003	0.89223	1.759758	1.731517	NA	5.10	1.38	30.72	1.30	0.04	
Q535S8	Epididymis secretory protein LI 85	PCBP1	4.60	0.052013		0.115334	0.055726	0.412555	0.125791	NA	2.92	14.01	8.56	0.15	0.18	0.618864	0.21907	0.496774	0.135303	-0.14267	NA	13.92	13.58	20.95	0.26	0.22	
Q59GL1	Synaptotagmin binding, cytoplasmic RNA interacting protein variant (Fragment)	NA	3.60	-0.44341		-0.17747	-0.15207	-1.18729	1.090227	NA	1.24	63.16	9.82	-0.35	0.07	-0.38545	-0.09735	-0.04798	-0.20973	0.230703	NA	2.42	21.42	14.39	-0.10	0.34	
Q59GY2	Ribosomal protein L4 variant (Fragment)	NA	1.80	0		0.164177	1.452257	0.544735	1.488051	0.977209	NA	43.07	24.78	35.52	0.93	0.13	0.353704	1.118375	0.855046	0.605834	1.387975	NA	12.87	20.53	25.92	0.62	0.11
Q6Z1V6	NADH-cytochrome b5 reductase	NUCB2	3.80	0		-0.39768	-0.4247	-0.5998	-0.60488	-0.58949	NA	5.57	0.75	6.96	-0.52	0.01	-0.35328	-0.57991	-0.52068	-0.5944	-0.55803	NA	2.90	1.78	8.83	-0.52	0.02
V9HW75	Epididymis secretory protein LI 109	NUCB2	1.80	0		0.797996	-0.03216	-0.13692	-0.53962	0.862964	NA	8.13	63.80	30.54	0.19	0.38	0.436473	0.031786	0.3152	0.42938	0.783874	NA	13.85	56.19	8.89	0.23	0.09
V9HW17	Epididymis secretory sperm binding protein LI 70p	NA	4.40	0		2.708129	1.39307	1.33248	0.29977	0.39178	NA	1270	4.51	81.2	0.17	0.01	2.07853	1.46196	0.93189	0.276155	0.656556	NA	10.47	18.53	57.80	1.02	0.13
P02449	Apollipoprotein E	APOE	2.40	0		0.43017	-0.40071	-0.26982	-0.76788	-1.13068	NA	6.41	30.73	38.02	-0.22	0.74	0.988405	1.12512	0.52104	-0.22391	0.423734	NA	72.94	11.22	29.63	0.36	0.22
Q05682	Caldesmon	CALD1	3.00	0		1.915068	1.028865	0.915036	1.723032	0.822859	NA	5.58	42.74	33.53	1.28	0.04	2.14465	2.897089	2.251019	2.436027	1.435657	NA	31.15	47.16	22.43	0.23	0.01
Q9P2E9	Ribosome-binding protein 1	RRBP1	4.20	1.200643		1.093267	0.114619	-0.03559	-0.05444	NA	46.21	0.92	40.90	0.46	0.24	1.010976	1.552115	0.342922	0.023993	-0.12973	NA	56.02	7.53	37.32	0.56	0.21	
E9PL57	Protein NEDD8-MDP1 (Fragment)	NEDD8-MDP1	1.40	-0.05317		0.178294	0.215469	0.467069	-0.66345	NA	1.82	52.74	9.18	0.03	0.88	0.413329	0.433643	0.952282	0.493116	0.27985	NA	25.15	10.43	13.02	0.51	0.02	
O145																											

UniProt	Protein name	Gene name	Peptide mean	08/017 HESC-RPE to hRPE										08/023 HESC-RPE to hRPE																
				Analysis						Technical replicate CV			Biological	Fold change (mean)	Unadjusted p-value (t-test)	Analysis						Technical replicate CV			Biological	Fold change (mean)	Unadjusted p-value (t-test)			
				1.1	1.2	2.1	2.2	3.1	3.2	1	2	3	CV			1.1	1.2	2.1	2.2	3.1	3.2	1	2	3	CV					
J3KR4	5'(3')-deoxyribonucleotidase, cytosolic type	N15C	2.00	-0.82887	-1.40898	-2.31084					-1.83965	28.06	NA	NA	43.54	-1.60	0.04	-1.71464	-1.39933	-3.38954				-0.92055	15.39	NA	NA	67.46	-1.86	0.12
S4R371	Fatty acid-binding protein, heart (Fragment)	FABP3	2.25	2.203669	1.379310	1.878319					1.110245	41.15	NA	NA	13.35	1.00	0.00	1.096201	-1.08744	1.553409				1.372066	90.39	NA	NA	37.75	0.73	0.18
O15540	Fatty acid-binding protein, brain	FABP7	2.00	-0.58674	-1.20179		-0.44572	-0.46575			29.70	29.70	NA	NA	15.44	-0.67	0.05	-0.87739	-1.37398			-0.63751	-1.11869	24.10	NA	NA	19.88	-1.00	0.03	
F5H157	Ras-related protein Rab-35 (Fragment)	RAB35	3.75	-1.75326	-1.22467					0.11535	0.360698	25.62	NA	NA	53.28	-0.63	0.62	-2.67772	-2.47572			-1.34021	-1.4104	9.88	NA	NA	77.27	-1.66	0.19	
AA0A024R8P	Ribosomal protein L38, isoform CRA_a	RPL38	1.25	-0.47663	-0.16291		0.100181	0.113342			15.07	07	NA	NA	15.96	-0.11	0.82	-0.29646	-0.00221			0.423444	-0.34003	14.37	NA	NA	28.73	-0.05	0.93	
D3GKD8	A-gamma globulin Oslvo variant	HGB1	16.25	-0.57027	-1.52499			-1.18616	-2.14649			45.35	NA	NA	37.76	-1.36	0.05	-1.14365	-1.93768			-1.37841	-1.54862	37.96	NA	NA	6.02	-1.50	0.00	
AA0A024R0G1	Viscoid docking protein p115, isoform CRA_a	VDP	1.75	0.220958	0.730039						24.70	NA	NA	33.38	0.75	0.09	-0.1541	0.407692			0.221779		1.527712	27.19	NA	NA	58.53	0.50	0.30	
O05DH1	Proteasome subunit alpha type 1 (Fragment)	RMSA7	2.00	0.186777	0.186701		-0.08594	0.00274			0.40	NA	NA	NA	9.84	0.07	0.72	0.89318	0.072204			0.195135	-0.16099	45.63	NA	NA	19.09	-0.20	0.55	
Q6F154	RAB5B protein	RAB5B	1.50	0.454502	-0.17475			-0.6436	-0.73692			30.36	NA	NA	37.24	-0.28	0.28	-0.43623	-0.27702			0.181626	0.124924	7.79	NA	NA	19.14	-0.10	0.93	
Q6IB11	Proteasome subunit beta type	PSMB7	3.25	-0.06812	0.198817		0.392993	0.281339			13.09	NA	NA	NA	11.09	0.20	0.12	0.506619	0.494715			0.566422	0.192431	0.58	NA	NA	13.32	0.44	0.07	
O14531	Dihydropyrimidinase-related protein 4	DPYSL4	1.50	-0.554	-1.16046		-0.27014	-0.76354			29.29	NA	NA	22.15	-0.69	0.07	-0.24232	-1.62813			-0.09761	-1.75532	63.14	NA	NA	52.83	-0.93	0.19		
P25189	Myelin protein P0	MPZ	3.00	-0.6887	-1.00038			-2.52587	-1.89535			15.22	NA	30.42	61.34	-1.53	0.27	-0.70104	-1.13559			-2.66117	-1.93767	21.04	NA	34.74	61.86	-1.61	0.26	
P36871	Phosphoglucomutase-1	PGM1	5.50	0.178973	-0.05022			0.298634	-0.11162			11.21	NA	19.97	1.92	0.08	0.12	0.286436	0.096933			-0.02461	0.093966	9.27	NA	5.81	7.78	0.11	0.39	
P51991	Heterogeneous nuclear ribonucleoprotein A3	HNRNPA3	5.25	-0.96942	-1.24703			-0.78008	-1.90749			13.56	NA	52.61	6.60	-1.23	0.06	-0.35888	-1.05686			-0.38172	-0.97759	33.56	NA	28.80	0.73	-0.69	0.01	
O15717	ELAV-like protein 1	ELAVL1	2.50	0.409268	-0.36577			0.358192	0.32444			37.10	NA	1.56	13.16	0.18	0.46	0.409529	0.030994			-0.10929	-0.15382	18.48	NA	2.18	0.04	0.84	0.04	
C9M772	Ras-related protein Rab-18	RAB18	2.75	-0.46926	-0.14821			-0.32795	-1.07901			15.57	NA	36.00	17.33	-0.51	0.24	-0.51608	-0.01217			-0.31976	-0.49940	24.45	NA	8.78	8.05	-0.34	0.14	
C9UNZ2	NSL1 cofactor p47	NSL1C	9.25	0.711409	1.293634			1.21656	1.434498			10.33	NA	10.84	14.50	1.16	0.09	0.952325	1.465947			0.800515	1.128844	6.87	NA	15.78	12.76	-1.09	0.04	
AA0A024R9B3	TROVE domain family, member 2, isoform CRA_b	TROVE2	2.00	0.792318	0.399531			0.687582	-0.28468			16.05	NA	45.93	14.23	0.38	0.28	0.515537	0.387619			0.912957	0.390476	4.27	NA	25.33	10.87	0.55	0.11	
AA0A024RA61	Heterogeneous nuclear ribonucleoprotein A2/B1, isoform CRA_c	HNRPA2B1	13.25	-1.64058	-1.82906			-0.84714	-1.04741			10.98	NA	9.80	36.81	-1.33	0.18	-0.62135	-0.80934			-1.04986	-1.17325	9.20	NA	6.04	19.38	-0.91	0.14	
AA0A024RCM3	HCG205638, isoform CRA_a	HCG_205638	4.50	-0.11937	-0.09716			-0.33693	-0.25351			1.09	NA	4.09	9.12	-0.20	0.20	-0.57003	-0.11438			-0.62214	-0.58635	22.15	NA	1.75	13.67	-0.47	0.17	
A8K3Q7	Annexin	NA	28.25	-0.1586	-0.69672			-0.74545	-0.74305			26.07	NA	0.12	16.66	-0.59	0.17	-0.44814	-0.66574			-0.76452	-0.71083	10.65	NA	2.63	9.03	-0.65	0.09	
A8K7N0	cDNA FLJ75556, highly similar to Homo sapiens ribosomal protein L14, mRNA	NA	1.50	-0.62265	-1.92961			0.293625	-0.11025			60.01	NA	19.68	57.23	-0.55	0.55	-1.13978	-0.60016			0.31874	0.032077	23.29	NA	14.00	49.85	-0.36	0.62	
J3KR44	Ubiquitin thioesterase OTUB1	OTUB1	1.25	0.867419	-0.17969			-0.01963	-0.3013			49.18	NA	13.76	28.54	0.09	0.78	-0.29136	0.233837			-1.27054	0.323961	25.46	NA	71.06	12.63	-0.25	0.46	
C53SW3	Putative uncharacterized protein DPYSL5 (Fragment)	DPYSL5	2.25	0.269777	-0.64208			-0.5667	-0.39216			43.26	NA	8.50	17.65	-0.33	0.26	0.289307	-0.58518			-0.99155	-0.33343	41.60	NA	31.71	26.29	-0.41	0.36	
C16465	Cold inducible RNA binding protein	CIRBP	3.00	-1.31192	-1.28307			-0.15663	0.064324			-0.22225	NA	10.81	47.99	-0.69	0.07	-0.97007	-1.29453			-0.38082	-0.20054	0.502488	NA	24.71	NA	74.09	-0.39	0.12
C59EH3	Acid phosphatase 1 isoform c variant (Fragment)	NA	2.00	-0.73808	0.104513			-0.21607	-0.29383			40.16	NA	26.71	13.62	0.07	0.29	-1.10638	0.34575			0.420661	-0.20103	65.72	NA	30.01	16.97	-0.14	0.68	
OSU071	High-mobility group box 2	NA	4.25	-0.95256	-1.12816			-0.49264	-1.43859			8.60	NA	44.77	7.26	-1.00	0.02	-0.77448	-0.0781			-0.58042	-1.23037	14.83	NA	31.33	2.41	-0.92	0.01	
Q6FHJ5	SCAMP3 protein (Fragment)	SCAMP3	1.25	0.242748	-0.18378			-1.23453	0.434341			20.75	NA	73.75	10.58	-0.19	0.55	0.505518	0.272114			-0.46575	0.14926	13.60	NA	29.70	26.34	0.13	0.73	
V9HWG9	Epididymis secretory protein LI 21	GSTO1	1.00	0.506559	0.684464			0.817633	0.078658			8.71	NA	12.76	17.35	0.77	0.14	-0.21384	1.00074			0.35389	0.768233	60.31	NA	21.08	0.98	0.50	0.07	
X5DP00	HCG15924, isoform CRA_a (Fragment)	SNRPN	2.00	-0.20278	-0.25697			0.731939	1.586799			2.66	NA	40.71	65.69	0.46	0.62	-0.23586	-0.43911			0.279244	0.698454	9.95	NA	20.40	39.95	0.08	0.88	
O60664	Perilipin-3	PLIN3	2.00	0.995465	1.336283			1.498874	0.824057			16.63	NA	32.48	1.21	1.16	0.00	1.499119	1.443458			1.606037	1.159648	2.73	NA	21.71	3.50	1.43	0.02	
O75964	ATP synthase subunit g, mitochondrial	ATP5L	2.75	-0.39051		-0.821	-0.39735	-0.34259			NA	20.62	NA	9.02	-0.49	0.03	0.03	-0.42119				-0.43158	-0.21367	-0.50865	NA	10.66	NA	6.61	-0.39	0.02
F49327	Fatty acid synthase	FASN	2.50	-0.09079		1.28588	0.003559	1.696925			NA	57.91	NA	59.90	0.72	0.29	0.29	-0.16315	1.402871			-0.68907	1.022059	NA	87.68	NA	38.01	-0.39	0.36	
C16465	C16orf65	NA	2.75	0.970167		0.17532	1.219777	0.22225			NA	10.81	NA	47.99	0.69	0.07	0.07	0.165243				0.38082	-0.20054	0.502488	NA	24.71	NA	74.09	-0.39	0.12
Q6Y116	Hydroxysteroid dehydrogenase-like protein 2	HSDL2	1.50	1.10183		0.194599	0.003559	0.702004			NA	9.35	NA	33.21	1.50	0.10	0.10	1.422714				0.277171	0.175829	0.636285	NA	4.98	NA	43.88	0.88	0.13
OS3GD1	Guanine nucleotide-binding protein subunit gamma (Fragment)	NA	4.00	1.013519		1.321027	0.903948	2.089793			NA	20.30	NA	44.22	0.33	0.00	0.00	1.245434				1.838433	0.859642	1.478498	NA	46.21	NA	8.35	1.36	0.00
OS49N0	Cofilin 2 (Muscle), isoform CRA_a	CFL2	4.75	1.088192		0.877237	-0.12854	0.838421			NA	47.39	NA	21.31	0.67	0.07	0.07	0.417179				0.553151	0.174488	0.302736	NA	18.45	NA	4.01	0.36	0.01
OSJR95	40S ribosomal protein S8	RPS8	2.50	0.738264		0.419536	0.710981	0.440533			NA	14.24	NA	10.39	0.58	0.02	0.02	0.95719				0.295728	0.476604	0.678951	NA	8.85	NA	19.56	0.60	0.05
OSJRJ0	NA	CLE	2.00	-1.20595		0.592101	0.358659	-0.02773			NA	11.83	NA	51.50	-0.07	0.66	0.66	-0.68404				0.230576	-0.46528	0.648407						

UniProt	Protein name	Gene name	Peptide mean	08/017 hESC-RPE to hRPE											08/023 hESC-RPE to hRPE												
				Analysis						Technical replicate CV			Biological	Fold change (mean)	Unadjusted p-value (t-test)	Analysis						Technical replicate CV			Biological	Fold change (mean)	Unadjusted p-value (t-test)
				1.1	1.2	2.1	2.2	3.1	3.2	1	2	3	CV			1.1	1.2	2.1	2.2	3.1	3.2	1	2	3	CV		
G8L8L6	Heterogeneous nuclear ribonucleoprotein H	HNRNPH1	6.50	0.746529	0.595168	-0.19752	0.106755	NA	7.41	14.86	34.12	0.31	0.54		0.583865	0.171802	-0.25516	-0.46259	NA	20.06	10.15	35.85	0.01	0.98			
IL3D7	Serine protease 33 (Fragment)	PRSS33	1.00	0.844695	0.661671	1.241487	1.228699	NA	8.96	6.63	23.26	0.99	0.15		0.656265	0.829712	0.173207	0.409621	NA	8.47	11.56	21.86	0.52	0.26			
Q53F64	Heterogeneous nuclear ribonucleoprotein AB isoform a variant (Fragment)	NA	2.50	0.689326	0.99088	-1.71898	-1.3153	NA	14.73	19.66	95.07	-0.34	0.82		1.011845	0.393555	-1.99443	-1.06313	NA	29.85	44.12	90.59	-0.41	0.77			
Q53FM7	NADH dehydrogenase (Ubiquinone) Fe-S protein 3, 30kDa (NADH-coenzyme Q reductase) variant (Fragmer NA)	NDUFA6	6.75	-0.7964	-0.40536	-0.28321	0.030486	NA	19.05	15.31	22.83	-0.36	0.37		-0.98264	-0.57566	0.335061	0.431694	NA	19.82	47.3	53.52	-0.20	0.79			
Q53H01	N-acetylglycosylamine amidohydrolase (Acid ceramidase) 1 preproprotein isoform a variant (Fragment)	NA	9.00	-1.28607	-1.00859	0.035827	-0.33834	NA	13.56	18.24	47.21	-0.65	0.44		-1.90619	-1.46423	0.351685	0.415091	NA	21.49	3.11	86.47	-0.65	0.64			
Q59F66	DEAD box polypeptide 17 isoform p82 variant (Fragment)	NA	3.00	0.418942	0.480244	0.499962	0.172562	NA	3.00	15.98	5.11	0.39	0.09		0.96183	0.367189	0.626875	-0.5486	NA	15.84	54.62	18.66	0.28	0.45			
Q68D19	Calcium-transporting ATPase	DKFZp686M008	4.00	-0.47355	-1.04294	-0.65045	-0.7124	NA	27.55	3.04	2.41	-0.72	0.03		-0.7309	-1.15517	-0.64346	-0.70733	NA	20.65	2.15	11.85	-0.81	0.10			
Q6LPS	Ribosomal protein S2	RPS2	3.75	0.185304	-0.00938	0.236275	0.733627	NA	9.53	24.14	20.20	0.39	0.29		0.02906	0.114681	0.123942	0.528974	NA	4.20	18.72	13.10	0.20	0.26			
Q9ADV6	40S ribosomal protein S6	RPS6	1.75	1.252037	-0.55845	0.421141	0.052935	NA	78.67	30.48	7.71	0.54	0.22		1.132441	0.035889	0.60882	0.753336	NA	51.31	7.08	0.16	0.63	0.05			
Q9UM54	Unconventional myosin-V	MYO6	1.50	-0.63828	-1.10964	-0.96499	-1.16999	NA	22.90	10.03	10.23	-0.97	0.06		-0.7018	-0.72324	-0.47061	-1.6434	NA	1.05	54.51	11.18	-0.88	0.12			
A0A024R417	Leucine zipper and CTNBP1 domain containing, isoform CRA_a	LYZC	1.75	0.793009	0.320112	0.814934	0.071413	NA	22.97	35.66	4.18	0.50	0.07		0.390279	0.027743	-0.05264	-0.46112	NA	17.68	19.89	22.49	-0.02	0.93			
AK84C8	60S ribosomal protein L13	RPL13	3.25	0.90383	0.336699	0.649858	0.22888	NA	27.44	20.49	9.46	0.53	0.11		0.602319	0.211791	-0.18132	0.432963	NA	19.02	29.66	12.80	0.27	0.31			
Q9J3L8	Translocon-associated protein subunit alpha	SSR1	1.25	-0.34443	-0.00992	-1.64454	0.476192	NA	16.32	88.55	2.83	-0.38	0.31		-0.26724	-0.48457	-0.73979	0.697794	NA	10.63	65.16	25.35	-0.20	0.46			
Q14HB4	Mitogen-activated protein kinase	MAPK1	2.75	0.147517	-0.26823	-1.00933	-0.71193	NA	20.24	14.52	38.58	-0.46	0.46		-0.25904	-0.13121	-0.91625	-0.41073	NA	6.26	24.53	21.77	-0.43	0.32			
Q94826	Mitochondrial import receptor subunit TOM70	TOM70A	10.00	0.038842	0.069666	-1.39129		1.51	NA	NA	65.47	-0.43	0.52		0.093945	-0.18126	-1.22315		13.45	NA	NA	55.06	-0.44	0.48			
Q52539	Elongation factor 1-alpha 2	EEF1A2	10.00	-1.40868	-2.82032	-1.24982		64.22	NA	NA	33.59	-1.83	0.16		0.72253	-1.2535	-0.59193		22.82	NA	NA	41.76	-1.19	0.26			
C9UNL5	Probable lysosomal cobalamin transporter	DMBRD1	1.00	-0.16208	0.963669	-0.11241		52.38	NA	NA	29.65	0.22	0.66		0.255198	0.388497	0.050722		6.43	NA	NA	13.27	-0.23	0.26			
A0A024R3V8	Translin-associated factor X, isoform CRA_c	TSNAX	1.00	-0.73874	-1.29986	1.513048		27.11	NA	NA	99.05	-0.17	0.88		-0.87578	-1.26617	-0.33777		19.02	NA	NA	34.58	-0.83	0.34			
A0A024R900	ATPase, H+ transporting, lysosomal 42kDa, V1 subunit C1, isoform CRA_a	ATP6V1C1	2.33	-0.42868	-0.4893	-0.78585		2.97	NA	NA	17.97	-0.57	0.16		-0.18241	-0.65148	-0.44806		22.79	NA	NA	2.45	-0.43	0.02			
A0A024R9A8	Peptidyl arginine deiminase, type II, isoform CRA_a	PADI2	2.33	-0.14918	0.395063	-0.20195		26.36	NA	NA	15.09	0.01	0.85		-0.31406	-0.24617	-0.66282		3.33	NA	NA	18.67	-0.41	0.25			
A6NP24	Quinone oxidoreductase (Fragment)	CRY2	2.33	-0.10448	0.06858	-1.73159		8.47	NA	NA	75.43	-0.59	0.49		-0.38525	0.287542	-1.04969		32.39	NA	NA	48.86	-0.38	0.47			
B4E106	cDNA FLJ53399, highly similar to Monocarboxylate transporter 1	NA	2.67	0.907743	1.070932	0.107975		7.99	NA	NA	42.01	0.74	0.43		0.982141	1.154491	1.976721		8.44	NA	NA	42.99	1.37	0.18			
B4E192	cDNA FLJ54224, highly similar to Glial fibrillary acidic protein, astrocyte	NA	15.00	-0.7299	-1.0776	-1.51992		16.96	NA	NA	30.24	-1.11	0.16		-1.16757	-0.98968	-1.1189		1.01	NA	NA	2.11	-1.09	0.01			
B7ZACD	cDNA, FLJ79134, highly similar to Dynamin-1 (EC 3.6.5.5)	NA	3.33	0.483373	-0.0778	0.245121		27.16	NA	NA	0.75	0.22	0.06		0.035282	0.056397	0.167082		8.73	NA	NA	5.94	0.09	0.33			
K7ELJ7	Calpain small subunit 1	CAPNS1	4.00	1.354202	0.261293	0.111414		4.00	NA	NA	38.12	0.58	0.41		0.96776	0.312776	0.11247		31.56	NA	NA	27.39	0.46	0.39			
C53GD0	Hydroxysteroid (17-beta) dehydrogenase 2 variant (Fragment)	NA	2.33	0.389719	2.495897	-0.11585		88.11	NA	NA	82.08	0.92	0.55		0.165829	2.274029	0.621855		88.17	NA	NA	45.09	1.02	0.20			
Q7Z4F3	Caveolin	NA	1.00	-1.34155	-0.07201	-1.36306		58.58	NA	NA	37.92	-0.92	0.20		-1.0445	0.200474	0.422735		57.50	NA	NA	34.32	-1.14	1.00			
S4R435	Protein RPS10-NUDT3 (Fragment)	RPS10-NUDT3	1.33	0.294865	-0.26265	0.245568		26.99	NA	NA	9.92	0.09	0.46		0.047843	0.526424	0.091432		23.24	NA	NA	10.54	-1.22	0.30			
V9HW6	Alpha-1 acid glycoprotein	HELS-153w	1.33	-2.86212	-1.29234	-1.2984		70.15	NA	NA	27.22	-1.82	0.14		-1.68866	-1.89772	-0.84037		10.32	NA	NA	44.86	-0.47	0.22			
Q8NF37	Lysophosphatidylcholine acyltransferase 1	LPCAT1	1.33	-0.42815	-0.44418	-1.37701		0.79	NA	NA	44.55	-0.75	0.30		-0.10284	-0.98487	-1.99019		41.93	NA	NA	68.02	-1.03	0.33			
C9P0L0	Vesicle-associated membrane protein-associated protein A	VAPA	2.67	0.310029	-0.13648	-0.27619		21.71	NA	NA	18.53	-0.39	0.68		0.502449	-0.19684	0.089762		33.62	NA	NA	5.14	0.13	0.16			
A0A024QZB4	Sulfotransferase	HCG_1993905	1.33	-0.64004	0.313857	0.268958		45.12	NA	NA	17.29	-0.02	0.85		-0.26637	-0.01952	0.566933		12.07	NA	NA	33.86	0.09	0.66			
B2K6D0	cDNA, FLJ92896, highly similar to Homo sapiens proteasome (prosome, macropain) 26S subunit, non-ATP-a	NA	2.00	0.935501	0.619598	0.592198		15.44	NA	NA	9.50	0.72	0.09		0.808607	0.502047	0.404082		14.97	NA	NA	12.68	0.57	0.15			
B4D3V9	cDNA FLJ51518, highly similar to Thioesteron, mitochondrial	NA	2.33	-0.03709	-0.47261	-0.0714		12.18	NA	NA	34.74	0.34	0.49		0.43727	-0.40399	-1.27281		40.10	NA	NA	67.12	-0.41	0.11			
F4ZV62	NF45	NA	3.33	-0.45586	-0.25652	1.08234		8.78	NA	NA	64.70	0.13	0.70		0.065121	0.326021	1.29295		12.75	NA	NA	51.13	0.56	0.40			
Q6I8A0	NADH dehydrogenase (Ubiquinone) Fe-S protein 5, 15kDa (NADH-coenzyme Q reductase)	NDUFS5	2.00	-0.32814	-0.06881	-1.77052		12.68	NA	NA	70.45	-0.72	0.43		-1.43979	-0.22824	-1.18413		56.12	NA	NA	23.01	-0.95	0.11			
Q9H3K5	Myo17 protein	NA	2.67	-0.23833	0.294331	-0.17659		37.11	NA	NA	11.20	-0.04	0.60		-0.43979	0.258178	-0.53596		33.56	NA	NA	23.64	-0.24	0.39			
D3DQ84	Acyl-CoA synthetase long-chain family member 6, isoform CRA_e	ACSL6	4.33	-0.47417	0.301126	-1.00647		25.81	NA	NA	45.89	-0.39	0.15		0.399229	0.105766	-0.61724		14.33	NA	NA	41.72	-0.04	0.75			
P61604	10 kDa heat shock protein, mitochondrial	HSPE1	7.33	0.52446	0.484206	0.901593		1.97	NA	NA	19.34	0.64	0.18		0.917834	0.766584	0.606649		7.41	NA	NA	11.62	0.76	0.10			
P62195	26S protease regulatory subunit 8	PSMCS5	2.33	0.38445	-0.12236	-0.22928		24.59	NA	NA	18.64	0.01	0.83		0.535932	-0.08136	0.062322		29.80	NA	NA	9.68	0.17	0.33			
C53GE3	Pyruvate dehydrogenase E1 component subunit alpha (Fragment)	NA	4.00	-0.56008	-0.19438	-0.48441		17.83	NA	NA	5.82	-0.41	0.08		-0.45864	-0.38142	-0.83359		7.92	NA	NA	20.16	-0.56	0.20			
C53HB7	Diablo isoform 1 variant (Fragment)	NA	2.33	0.933739	0.3807	0.690789		26.78	NA	NA	0.35	0.67	0.02		1.015474	0.853788	0.596291		3.78	NA	NA	16.62	0.82	0.14			
C512C3	Signal recognition particle 14 kDa protein	SRP14	2.00	-0.43664	0.373831	-1.10952		2.00	NA	NA	59.00	-0.39	0.59		-0.13834	0.66948	-0.3819		38.59	NA	NA	95.34	-0.41	0.19			
P36405	ADP-ribosylation factor-like protein 3	ARL3	2.67	0.166224	-0.13585		14.75	NA	NA	20.79	-0.12	0.52		0.71589	-0.23238		-0.36617		44.68	NA	NA	32.80	0.04				

UniProt	Protein name	Gene name	Peptide mean	08/017 hESC-RPE to hRPE											08/023 hESC-RPE to hRPE																	
				Analysis						Technical replicate CV			Biological	Fold change (mean)	Unadjusted p-value (t-test)	Analysis						Technical replicate CV			Biological	Fold change (mean)	Unadjusted p-value (t-test)					
				1.1	1.2	2.1	2.2	3.1	3.2	1	2	3	CV			NA	1.1	1.2	2.1	2.2	3.1	3.2	1	2	3			CV	NA			
E9KL35	Epididymis tissue sperm binding protein LU 3a	NA	4.33	1.141453						0.546454	0.681884	NA	NA	6.63	25.48	0.79	0.19	0.858646		0.393686	0.832174	NA	NA	21.33	11.21	0.69	0.11					
O53HM8	Annexin (Fragment)	NA	2.33	0.667031						-0.5293	0.156674	NA	NA	33.00	38.82	0.10	0.67	-0.48815		-0.30717	0.171863	NA	NA	23.27	21.41	-0.21	0.41					
O59F6	Calpain 2, large [catalytic] subunit variant (Fragment)	NA	1.67	-0.16919						-1.04551	0.789151	NA	NA	79.49	15.37	-0.14	0.09	-0.16585		-0.4732	0.032077	NA	NA	8.51	1.60	-0.20	0.09					
ON8169	Amino acid transporter	SLC1A3	3.33	-1.35357						-2.00792	-1.41957	NA	NA	28.44	16.12	-1.59	0.07	-1.6527		-2.50395	-2.32375	NA	NA	24.82	36.34	-2.16	0.12					
O9N826	cDNA FLJ13237 fs. clone KIDNE2004846, highly similar to 26S PROTEASOME REGULATORY SUBUNIT 53	NA	1.33	0.759466						0.168861	-2.24729	NA	NA	96.79	61.44	-0.44	0.90	0.512929		0.428979	-0.78932	NA	NA	56.40	17.49	0.05	0.72					
D68BV2	Vesicular integral-membrane protein VIP36	LMAN2	1.67							0.899121	1.020976	NA	NA	5.97	18.01	0.84	0.15	0.376116		0.727589	0.622612	NA	NA	54.10	24.65	0.58	0.18					
P16403	Histone H1.2	HIST1H1C	14.67							-1.89178	-0.49692	-0.72493	NA	11.15	NA	59.14	-0.14	0.30			-1.87249	-0.87106	-0.82909	NA	NA	48.12	12.30	-1.19	0.19			
P23348	NAD-dependent malic enzyme, mitochondrial	ME2	3.67							0.572379	-0.3583	-0.72536	NA	17.89	NA	17.89	-0.17	0.98			0.961365	-0.16043	-0.54293	NA	NA	8.64	NA	59.75	0.72			
O9Y230	RuvB-like 2	RUVBL2	2.33							0.890191	1.024833	-0.45184	NA	66.66	NA	20.56	0.40	0.76			0.987496	0.807102	-0.2272	NA	NA	2.06	29.31	0.52	0.32			
O9Y3D6	Mitochondrial fission 1 protein	FIS1	2.00							-0.02373	-0.63293	-1.90425	NA	58.57	NA	51.83	-0.85	0.40			0.099609	-2.42443	-1.48457	NA	NA	44.50	NA	84.19	-1.27	0.53		
A8K132	cDNA FLJ75476, highly similar to Homo sapiens glutaminase (GLS), mRNA	GLS	5.33							0.445838	-1.11155	-2.00647	NA	42.51	NA	82.84	-0.89	0.68			0.805307	-0.56149	-1.16929	NA	NA	29.36	NA	72.68	-0.31	0.98		
B4DH4C6	Amino acid transporter	NA	5.33							-1.84876	-1.42292	-0.59183	NA	39.64	NA	42.75	-1.29	0.18			-1.98139	-1.69728	-1.18413	NA	NA	24.89	NA	27.27	-1.62	0.10		
B4DWN1	cDNA FLJ52285, highly similar to Vesicular integral-membrane protein VIP36	NA	2.00							0.926499	0.723277	2.92187	NA	90.83	NA	58.91	-1.52	0.20			0.259836	1.023967	2.715521	NA	NA	74.56	NA	79.83	1.33	0.41		
B7Z4Z4	cDNA FLJ51918, highly similar to Peroxisomal membrane protein PEX14	NA	3.67							-0.1267	-1.67125	-1.28805	NA	18.67	NA	61.34	-1.03	0.45			-0.07787	-1.4876	-1.20259	NA	NA	13.92	NA	58.12	-0.92	0.46		
B7Z8B3	cDNA, FLJ79447, highly similar to Nucleosome assembly protein 1-like 4	NA	2.00							0.65499	-0.56548	-0.23094	NA	16.32	NA	49.03	-0.05	0.85			0.403533	0.110075	-0.817464	NA	NA	46.47	NA	33.81	-1.02	0.98		
C9JKZ2	NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit 3 (Fragment)	NDUFB3	1.00							-0.86976	-0.78448	-0.52392	NA	12.74	NA	10.83	-0.73	0.09			-1.15404	-0.71919	-0.62112	NA	NA	4.80	NA	23.54	-0.83	0.17		
HY986	NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit 5, mitochondrial (Fragment)	NDUFBS	1.00							0.053477	-1.70975	-1.73762	NA	13.87	NA	77.54	-1.13	0.52			-0.21207	-1.16767	-1.07218	NA	NA	5.09	NA	43.23	-0.82	0.38		
JKPE3	Guanine nucleotide-binding protein beta-2-like 1	GNB2L1	3.33							0.760949	1.589461	0.449878	NA	53.12	NA	17.96	0.93	0.20			0.561488	0.911556	0.493193	NA	NA	20.36	NA	7.64	0.66	0.07		
O9UQD4	SH3-containing Grb-2-like 1 protein	NA	1.33							0.108921	1.158245	0.873047	NA	13.93	NA	43.35	-0.73	0.40			0.28284	1.587407	0.80436	NA	NA	37.46	NA	45.63	-0.89	0.35		
O15257	Serine/threonine-protein phosphatase 2A activator	PPP2R4	2.00							-1.6915	-0.8196	-0.87543	NA	2.74	NA	40.24	-1.11	0.23			-1.00243	-0.94611	-1.17669	NA	NA	11.28	NA	2.66	-1.04	0.02		
O9H936	Mitochondrial glutamate carrier 1	SLC25A22	3.00							-1.9095	-0.31446	-0.58883	NA	11.95	NA	66.71	-0.93	0.36			-1.69078	-1.14105	-0.60453	NA	NA	26.00	NA	40.17	-1.15	0.20		
AAO087VV22	60S ribosomal protein L10	RPL10	1.33							0.427324	0.96621	0.672463	NA	14.35	NA	19.46	0.69	0.19			0.121043	0.170016	0.522827	NA	NA	26.50	NA	33.71	-0.57	0.40		
F8W0J6	Nucleosome assembly protein 1-like 1	NAP1L1	1.33							-1.09453	-0.17029	0.650127	NA	39.16	NA	63.38	-0.20	0.64			-0.6432	-0.91095	-0.80597	NA	NA	5.14	NA	10.48	-0.79	0.09		
CZQ9B7	Glucose-6-phosphate 1-dehydrogenase (Fragment)	G6PD	2.33							-0.26722	-0.16969	0.004348	NA	8.52	NA	9.16	-0.14	0.31			0.093426	-0.19391	-0.41327	NA	NA	10.73	NA	19.14	-0.17	0.69		
F8W9I8	Serpin-B	SEPT8	2.00						-0.2677	-0.01738	0.406197	-0.2677	NA	NA	NA	22.42	0.06	0.77			0.010976	0.584709		-0.98477	NA	NA	NA	NA	49.51	-0.13	0.80	
B3K9V6	cDNA FLJ16285 fs. clone OCBF2004038, highly similar to Dihydropyrimidinase-related protein 1	NA	1.00							-1.24613		-1.33118	-1.71805	NA	NA	NA	16.60	-1.43	0.01			-1.67591		-1.19333	-1.2876	NA	NA	16.88	-1.39	0.01		
O4LE36	ACYL variant protein (Fragment)	ACYL	1.00							0.045406	0.434159	0.021713	NA	NA	NA	16.71	0.17	0.34			-0.05732	0.248366	-0.00663	NA	NA	NA	NA	11.66	0.66	0.58		
O6FH8T	RNP24 protein	RNP24	2.33							0.003981	-1.44142	-0.38504	NA	NA	NA	45.02	-0.61	0.29			0.410016	-2.77714	-1.0244	NA	NA	NA	NA	92.80	-1.13	0.34		
V9HW06	Serine hydroxymethyltransferase	SHMT2	1.33							-1.79573	0.26106	-0.7931	NA	NA	NA	67.63	-0.78	0.32			-2.40282	0.276347	-0.73531	NA	NA	NA	NA	77.10	-0.95	0.35		
F5GZN3	Lactadherin	MFG8	2.00							0.526464	0.840144		NA	NA	NA	45.50	-0.24	0.64			0.934752	0.925694		0.21271	NA	NA	NA	NA	26.03	-0.69	0.10	
O9QVQ6	Histone H2A type 1-A	HIST1H2AA	7.67							-3.50592		-1.32235	-1.34085	NA	NA	0.91	90.12	-2.06	0.27			-2.9504		-2.06449	-2.05732	NA	NA	0.35	42.27	-2.36	0.11	
F4ZV64	NF90a	NA	7.00							0.706501		-0.39236	0.236337	NA	NA	30.34	35.98	0.18	0.57			0.700185		-0.03538	0.270118	NA	NA	14.92	27.80	0.31	0.39	
HY0BL1	Inositol monophosphatase 1 (Fragment)	IMPAA1	1.33							-0.4115		0.540315	-0.37471	NA	NA	43.40	27.37	-0.08	0.63			-0.65425		0.376267	-0.55362	NA	NA	44.06	30.83	-0.28	0.41	
O53C79	Carnitine O-palmitoyltransferase II, mitochondrial variant (Fragment)	NA	2.00							-0.44341		-0.4619	-0.41673	NA	NA	2.21	0.21	-0.44	0.00			-1.39122		-0.414669	-0.81245	NA	NA	19.37	31.84	-0.07	0.84	
O6JA22	RPL21 protein	RPL21	1.00							-0.40847		1.165691	0.464972	NA	NA	33.59	58.30	0.41	0.80			0.605167		0.691809	-0.191599	NA	NA	42.26	14.19	0.37	0.25	
P08727	KRT19, type I cytoskeletal 19	KRT19	7.67							0.744948	0.760374	0.87501	NA	0.76	NA	5.99	0.79	0.05			1.754672	1.446921	1.08121	NA	NA	15.03	NA	25.58	1.43	0.12		
O70J99	Protein unc-13 homolog D	UNC13D	3.33							1.224058	0.248022	0.496201	NA	46.09	NA	15.66	0.66	0.12			0.71668	0.052531	-0.23312	NA	NA	31.99	NA	31.59	0.18	0.85		
O9UJZ1	Stomatin-like protein 2, mitochondrial	STOML2	5.33							-0.22098	-0.06318	0.549418	NA	7.73	NA	33.16	0.09	0.66			-0.37502	-0.83764	0.726465	NA	NA	22.48	NA	60.30	-0.16	0.94		
AAO024R994	Copine III, isoform CRA_a	CNP3C	2.00							-0.46804	-0.29063	-0.66722	NA	8.68	NA	14.20	-0.48	0.17			-0.66522	-0.8417	-1.011	NA	NA	8.64	NA	12.72	-0.84	0.09		
B4DN60	cDNA FLJ52703, highly similar to Asparaginyl-tRNA synthetase, cytoplasmic (EC6.1.1.22)	NA	2.33							0.092645	-0.05521	0.135272	NA	7.24	NA	5.62	0.06	0.41			0.440746	-0.24922	0.748786	NA	NA	33.19	NA	29.56	0.31	0.42		
O53E34	Dolichyl-diphosphooligosaccharide-protein glycosyltransferase subunit 1 (Fragment)	NA	11.33							0.147517	0.727673	0.062175	NA	1.33	NA	7.31	0.16	0.32			0.042883	0.250064	-0.0031	NA	NA	10.14	NA	7.51	0.10	0.51		
O8NAB7	cDNA FLJ5635 fs. clone SPLEN2011805, highly similar to BONE/CARTILAGE PROTEOGLYCAN I	NA	1.00							1.466996	1.495283	0.3524	NA	6.19	NA	52.66	1.10	0.35			2.094576	1.975248	0.990457	NA	NA	5.85	NA	49.12	1.69	0.21		
V9HW07	Epithelial secretory protein LU 52	ESPT1	7.00							0.05021	-0.08021	0.08021	NA	NA	NA	32.56	0.06	0.21			0.035046	0.03215	0.781995	NA	NA	3.27	NA	37.25	0.26	0.20		
O60888	Protein CUTA	CUTA	1.67							0.24441	0.311853	0.802084	NA	15.26	NA	15.89	0.58	0.16			0.839899	1.071867	0.990457	NA	NA	11.34	NA	1.46	0.97	0.01		
P68032	Actin, alpha cardiac muscle 1	ACT1	27.33							-0.39931	-0.05084		0.360638	NA	17.00	NA	27.83	-0.03	0.86			0.0495	0.216577		0.649476	NA	NA	8.18	NA	24.93	0.31	0.37
B4DDL4	cDNA FLJ53966, moderately similar to Homo sapiens cytidylate kinase (CMPK), mRNA	NA	1.67							0.263344	1.799296	1.14029	NA	68.89	NA	4.24	1.07	0.03			1.154178	1.73449	1.484754	NA	NA	28.07	NA	0.56	1.46	0.10		
O4LE63	ATP2B2 variant protein (Fragment)																															

UniProt	Protein name	Gene name	Peptide mean	08/017 hESC-RPE to hRPE										08/023 hESC-RPE to hRPE													
				Analysis						Technical replicate CV			Biological	Fold change (mean)	Unadjusted p-value (t-test)	Analysis						Technical replicate CV			Biological	Fold change (mean)	Unadjusted p-value (t-test)
				1.1	1.2	2.1	2.2	3.1	3.2	1	2	3	CV			1.1	1.2	2.1	2.2	3.1	3.2	1	2	3	CV		
Q4WB24	Histone cluster 1, H1e	HIST1H1E	16.00	-1.5096				-0.39254	NA	NA	NA	52.17	-0.95	0.34	-1.75475					-1.49227	NA	NA	NA	12.83	-1.62	0.05	
O53HR2	Acyl-Coenzyme A dehydrogenase, very long chain variant (Fragment)	NA	9.00	0.440355				0.135272	NA	NA	NA	14.90	0.29	0.31	0.178663					0.000827	NA	NA	NA	8.71	0.09	0.50	
C59EK7	CSDF038Y005 variant (Fragment)	NA	2.00	-0.69029				0.310293	NA	NA	NA	47.17	-0.19	0.77	-0.78653					-0.0358	NA	NA	NA	35.99	-0.41	0.47	
V5YQL4	Adenosylhomocysteinease	FGFR2-AHCY1	3.00	0.019163				0.250093	NA	NA	NA	11.29	0.13	0.45	0.509393					0.357023	NA	NA	NA	7.46	0.43	0.11	
B3KT66	Proteasome (Prosome, macropain) 26S subunit, non-ATPase, 6, isoform CRA_c	PSMD6	1.50	0.132861				0.100491	NA	NA	NA	1.59	0.12	0.09	-0.31488					0.284856	NA	NA	NA	28.98	-0.02	0.97	
AA024R877	Delta-aminolevulinic acid dehydratase	ALAD	2.00	0.071055				0.511419	NA	NA	NA	21.42	0.29	0.41	-0.10049					-0.03741	NA	NA	NA	3.09	-0.07	0.27	
AA024RAC3	Viral simian leukemia viral oncogene homolog B (Ras related GTP binding protein), isoform CRA_a	VRAL	2.50	-0.34805				0.03021	NA	NA	NA	18.43	-0.16	0.56	-0.79107					-0.01951	NA	NA	NA	36.94	-0.41	0.48	
AA024RCN6	Vahyl-RNA synthetase, isoform CRA_a	VARS	2.00	1.07489				-0.33660	NA	NA	NA	64.12	0.37	0.69	1.236441					0.444958	NA	NA	NA	36.94	0.85	0.27	
BAE043	KH domain containing, RNA binding, signal transduction associated 1, isoform CRA_b	KHDRBS1	1.50	0.149107				-0.41994	NA	NA	NA	27.53	-0.14	0.72	-0.02564					-0.54017	NA	NA	NA	24.95	-0.28	0.47	
E7EK90	Dynactin subunit 1	DCTN1	2.00	0.301908				-0.27746	NA	NA	NA	28.02	0.01	0.97	0.226831					0.062738	NA	NA	NA	8.03	0.14	0.33	
J3KMX5	40S ribosomal protein S13	RPS13	2.00	-0.1213				0.992278	NA	NA	NA	52.02	0.44	0.58	-0.89399					0.893735	NA	NA	NA	77.90	0.00	1.00	
Q6FHM9	CD59 antigen, complement regulatory protein, isoform CRA_b	CD59	2.00	0.87849				0.16464	NA	NA	NA	34.29	0.52	0.38	0.68866					0.942564	NA	NA	NA	12.41	0.82	0.10	
OBIZ09	SH3GL2 protein	SH3GL2	1.00	0.359044				-0.4869	NA	NA	NA	40.31	-0.06	0.90	0.484393					-0.95024	NA	NA	NA	28.02	0.19	0.62	
O96B54	FBL protein (Fragment)	FBL	1.00	1.378784				1.471612	NA	NA	NA	4.55	1.43	0.02	1.321051					1.088036	NA	NA	NA	11.40	1.20	0.06	
O60518	Ran-binding protein 6	RANBP6	2.00		0.8584	0.595263			NA	NA	NA	12.86	0.73	0.11	0.855981					-0.62447	NA	NA	NA	66.80	0.12	0.90	
C9AHE7	ER01-like protein alpha	ER01L	1.00	0.594926	0.02366				NA	NA	NA	27.64	0.31	0.47	0.948177					0.53859	NA	NA	NA	19.94	0.74	0.17	
C9AIZ4	DnaJ homolog subfamily C member 5	DNAJC5	2.00	-0.84876	-0.51196				NA	NA	NA	16.43	-0.68	0.15	-1.06237					-0.48548	NA	NA	NA	27.90	-0.77	0.23	
C9NVL2	UDP-glucose:glycoprotein glucosyltransferase 1	UGGT1	1.00	0.796139	1.171163				NA	NA	NA	43.67	1.26	0.22	0.602847					1.329349	NA	NA	NA	34.87	0.97	0.23	
AA024R317	HCG2032701, isoform CRA_a	hCG_2032701	1.50	0.881871	0.482926				NA	NA	NA	19.43	0.68	0.18	-0.10155					-0.06708	NA	NA	NA	1.69	-0.08	0.13	
AA0A07WX97	Bcl-2-like protein 13	BCL2L13	4.00	0.483935	0.433342				NA	NA	NA	2.48	0.46	0.04	0.464371					0.544328	NA	NA	NA	3.92	0.50	0.05	
AA0A07X1F5	Protein SYNJ2BP-COX16 (Fragment)	SYNJ2BP-COX16	1.00	0.26066	-0.5379				NA	NA	NA	38.17	-0.14	0.79	-0.19305					-0.80325	NA	NA	NA	29.47	-0.50	0.35	
A8K9V9	cDNA FLJ76064	NA	1.50	-0.54499	-0.53252				NA	NA	NA	0.61	-0.54	0.01	-0.16957					-1.37897	NA	NA	NA	56.03	-0.77	0.42	
B2RCC2	cDNA, FLJ95978, highly similar to Homo sapiens Y box binding protein 2 (YBX2), mRNA	NA	1.00	0.1657	0.767389				NA	NA	NA	29.07	0.47	0.36	0.371017					0.618727	NA	NA	NA	12.11	0.49	0.16	
B4D2H2	cDNA FLJ60563, highly similar to Homoglycine-induceddifferentiation-associated protein 1	NA	2.50	1.020264	-0.13174				NA	NA	NA	53.64	0.44	0.58	1.225663					-0.2761	NA	NA	NA	67.61	0.47	0.64	
B7Z8A2	cDNA FLJ51671, highly similar to Prenylcysteine oxidase (EC 1.8.3.5)	NA	1.50	-1.27661	-1.01572				NA	NA	NA	12.75	-1.15	0.07	-1.40224					-1.1156	NA	NA	NA	14.00	-1.26	0.07	
FG5KX5	Dolichyl diphosphooligosaccharide--protein glycosyltransferase subunit DAD1	DAD1	1.00	0.827605	0.276752				NA	NA	NA	26.68	0.55	0.29	0.970165					0.24858	NA	NA	NA	34.65	0.61	0.34	
F6T1Q0	2',5'-phosphodiesterase 12	PDE12	1.50	1.319724	0.591574				NA	NA	NA	34.95	0.96	0.23	1.073984					0.810425	NA	NA	NA	12.88	0.94	0.09	
F8W7Q4	Protein FAM162A	FAM162A	1.50	0.094236	-0.76723				NA	NA	NA	41.01	-0.34	0.58	-0.32623					-0.74314	NA	NA	NA	20.29	-0.53	0.24	
Q08A9	Histone H2A	HIST1H2AB	6.50	-0.55723	0.043084				NA	NA	NA	29.01	-0.26	0.55	-0.77387					0.570977	NA	NA	NA	61.52	-0.10	0.90	
Q3MHU6	NDUFB1 protein (Fragment)	NDUFB1	1.00	-0.94927	-1.80286				NA	NA	NA	40.66	-1.38	0.19	-1.09307					-0.53779	NA	NA	NA	26.88	-0.82	0.21	
O53F10	UV excision repair protein RAD23 homolog B variant (Fragment)	NA	2.50	-0.57098	-0.28962				NA	NA	NA	13.75	-0.40	0.20	-0.60482					0.666543	NA	NA	NA	58.57	0.03	0.97	
O53GY0	Plastin 3 variant (Fragment)	NA	2.00	1.724823	0.933138				NA	NA	NA	37.86	1.33	0.18	1.758466					0.760659	NA	NA	NA	47.04	1.26	0.24	
O53YC7	Serine--RNA ligase, cytoplasmic	SARS	4.00	-0.15686	0.928272				NA	NA	NA	50.81	0.39	0.61	0.039987					1.000253	NA	NA	NA	45.04	0.52	0.47	
O53129	Quinine nucleotide binding protein (G protein), alpha transducing activity polypeptide 2	RAB27A	2.00	-1.53899	-0.68951				NA	NA	NA	44.03	-1.11	0.22	-2.08497					-0.81879	NA	NA	NA	58.44	-1.45	0.26	
O6A88	RAB27A protein	RAB27A	2.50	0.204767	0.362953				NA	NA	NA	7.75	0.28	0.17	0.607917					0.03225	NA	NA	NA	30.88	-0.29	0.53	
O6MZZ3	Putative uncharacterized protein DKFZp680I0746	NA	2.50	-1.06762	-0.34141				NA	NA	NA	34.86	-0.70	0.30	-0.18953					-0.66162	NA	NA	NA	22.93	-0.43	0.32	
OB8T01	Similar to cytoskeleton-associated protein 4 (Fragment)	NA	14.50	-0.04003	-0.42328				NA	NA	NA	18.67	-0.23	0.44	0.105561					0.089055	NA	NA	NA	0.81	0.10	0.05	
P11233	Ras-related protein Ral-A	RALA	2.00	-0.16919	-0.56195				NA	NA	NA	19.13	-0.37	0.31	-0.26273					-0.61088	NA	NA	NA	16.98	-0.44	0.24	
Q9H3N1	Thioredoxin-related transmembrane protein 1	TMX1	1.50	-0.99129	-1.80934				NA	NA	NA	39.05	-1.40	0.18	-0.33955					-1.90335	NA	NA	NA	69.93	-1.12	0.39	
AA0A07X2I2	Glutathione peroxidase	GPX4	1.50	0.568416	-0.3583				NA	NA	NA	43.92	0.11	0.86	0.819112					-0.00051	NA	NA	NA	39.13	0.41	0.50	
B4DHE8	RNA-binding protein Musashi homolog 2	MSI2	1.50	-0.14758	-0.06617				NA	NA	NA	39.99	-0.11	0.23	0.455721					0.42009	NA	NA	NA	1.75	0.44	0.03	
A8K2G0	cDNA FLJ76605, highly similar to Homo sapiens secretory carrier membrane protein 1 (SCAMP1), transcript	NA	1.50	0.477405	-0.32853				NA	NA	NA	3.50	0.07	0.88	0.417294					0.206989	NA	NA	NA	10.29	0.31	0.21	
A8K5V9	cDNA FLJ76605, highly similar to Homo sapiens secretory carrier membrane protein 1 (SCAMP1), transcript	NA	2.00	0.279017	0.53294				NA	NA	NA	14.40	0.35	0.40	1.849392					0.151726	NA	NA	NA	74.77	1.00	0.45	
B4DHD2	cDNA FLJ54588, highly similar to Programmed cell death 6-interacting protein	NA	5.00	0.506559	0.59848				NA	NA	NA	14.50	0.55	0.05	-0.23316					0.339535	NA	NA	NA	27.63	0.05	0.88	
B4DHK9	cDNA FLJ51656, highly similar to Actin-like protein 2	NA	1.00	1.047336	0.892775				NA	NA	NA	7.57	0.97	0.05	0.825343					1.446643	NA	NA	NA	29.99	1.14	0.17	
B4DIV0	cDNA FLJ52546, highly similar to Beta-soluble NSF attachment protein	NA	3.00	-0.46709	-0.04077				NA	NA	NA	20.74	-0.25	0.44	-0.31358					-0.16081	NA	NA	NA	7.48	-0.24	0.20	
B4DP80	cDNA FLJ56357, highly similar to Homo sapiens secretory carrier membrane protein A1 binding protein (APOA1BP), mRNA	NA	1.50	0.478223	-1.09099				NA	NA	NA	70.13	-0.31	0.76	0.376459					0.225022	NA	NA	NA	7.42	0.30	0.16	
E7EQ64	Trypsin-1	PRSS1	2.50	0.99791	0.807679				NA	NA	NA	9.31	0.90	0.07	0.991934					0.752727	NA	NA	NA	11.70	0.87	0.09	
J3KQAO	Synaptotagmin I, isoform CRA_b	SYT1	1.50	-1.09777	-0.54261				NA	NA	NA	26.88	-0.82	0.21	-1.48865					-0.46423	NA	NA	NA	48.20	-0.98	0.31	
O59GX9	Ribosomal protein L5 variant (Fragment)	NA	1.50	0.489354	0.916154				NA	NA	NA	20.76	0.70	0.19	0.63044					1.53933	NA	NA	NA	43.13	1.08	0.25	
OB8T11	Vacuolar proton pump subunit SFD alpha isoform	NA	3.50	-0.0927	0.965454				NA	NA	NA	49.66	0.44	0.56	-0.29183					0.314185	NA	NA	NA	29.27	0.01	0.98	
O51T98	Torsin-1A-interacting protein 1	DRYAI1P1	1.00	0.256852	0.927474				NA	NA	NA	3.32	0.22	0.62	0.270553					-0.4261	NA	NA	NA	33.50	-0.08	0.96	
AA0A04J2C3	Transitionally-controlled tumor protein	TPT1	1.50	0.333424	-0.02862				NA	NA	NA	17.65	0.15	0.55	0.280302					-0.50555	NA	NA	NA	37.59	-0.11	0.82	
AA0A04DGE4	Syntaxin-3 (Fragment)	STX3	5.00	-0.89038	-1.626				NA	NA	NA	35.29	-1.26	0.18	-0.80202					-1.68419	NA	NA	NA	41.94	-1.24	0.22	
O15400	Syntaxin-7	STX7	2.00	-0.4917		-0.00343																					

UniProt	Protein name	Gene name	Peptide mean	08/017 hESC-RPE to hRPE										08/023 hESC-RPE to hRPE													
				Analysis						Technical replicate CV			Biological	Fold change (mean)	Unadjusted p-value (t-test)	Analysis						Technical replicate CV			Biological	Fold change (mean)	Unadjusted p-value (t-test)
				1.1	1.2	2.1	2.2	3.1	3.2	1	2	3	CV			1.1	1.2	2.1	2.2	3.1	3.2	1	2	3	CV		
F61LK2	Glyoxalase domain-containing protein 4	GLOD4	2.50			1.012211	0.466462		NA	NA	NA	26.43	0.74	0.23			0.450249	-0.10929		NA	NA	NA	27.09	0.17	0.65		
O53HV6	Niemann-Pick disease, type C2 variant (Fragment)	NA	3.50			1.134689	0.92909		NA	NA	10.06	1.03	0.06			1.236955	0.900383		NA	NA	NA	16.42	1.07	0.10			
Y9HWJ1	Glutathione synthetase	GSS	2.50			0.52215	0.395652		NA	NA	6.20	0.46	0.09			0.569656	0.361053		NA	NA	NA	10.21	0.47	0.14			
P30711	Glutathione S-transferase theta-1	GSTT1	1.00			0.681697	0.671259		NA	NA	0.51	0.68	0.00			0.979295	1.955803		NA	NA	NA	46.09	1.47	0.20			
Q13509	Tubulin beta-3 chain	TUBB3	31.50			-0.61991	-3.02394		NA	NA	96.47	-1.82	0.37			0.014563	-1.02090		NA	NA	NA	49.03	-0.51	0.51			
Q14315	Flavin-C	FLNC	5.50			-0.06815	0.737786		NA	NA	38.50	0.33	0.56			0.450249	0.636313		NA	NA	NA	9.11	0.54	0.11			
O232W2	Galectin-related protein	LGALS4	1.00			2.06489	-1.32023		NA	NA	35.71	-1.69	0.14			-1.45937	-0.93153		NA	NA	NA	25.59	-1.20	0.14			
A0A088QF11	Choline transporter-like protein 2 isoform 2	SLC44A2	2.00			0.150526	-0.26399		NA	NA	20.20	-0.06	0.83			0.421898	-0.09045		NA	NA	NA	24.85	0.17	0.63			
B2RA03	cDNA, FLJ194640, highly similar to Homo sapiens keratin 18 (KRT18), mRNA	NA	9.50			1.59447	1.263141		NA	NA	16.17	1.43	0.07			2.047228	1.128552		NA	NA	NA	43.56	1.59	0.18			
B4DDM5	cDNA FLJ53298, highly similar to Peroxisomal multifunctional enzyme type 2	NA	6.00			0.289911	0.238256		NA	NA	2.53	0.26	0.06			0.043254	0.234993		NA	NA	NA	9.38	0.14	0.38			
B4DWX6	cDNA FLJ53936, highly similar to Medium-chain specific acyl-CoA dehydrogenase, mitochondrial (EC 1.3.99 NA)	NA	7.00			-0.45147	-0.09779		NA	NA	17.25	-0.27	0.36			-0.4049	-0.14664		NA	NA	NA	12.63	-0.28	0.28			
MOR3D6	60S ribosomal protein L18a (Fragment)	RPL18A	1.00			1.449878	-0.08065		NA	NA	68.69	0.68	0.54			0.966041	0.663061		NA	NA	NA	14.80	0.81	0.12			
O53GW1	Vesicle transport-related protein isoform a variant (Fragment)	NA	1.00			-1.84339	0.552086		NA	NA	96.25	-0.65	0.69			-0.5704	0.470995		NA	NA	NA	48.94	-0.05	0.94			
O510G8	Annexin	ANXA11	1.50			-0.4261	1.29344		NA	NA	75.54	0.43	0.70			-0.32275	1.464881		NA	NA	NA	77.90	0.57	0.64			
P14136	Glial fibrillary acidic protein	GFAP	42.50			-1.46451	-0.50684		NA	NA	45.29	-0.99	0.29			-1.62929	-0.09479		NA	NA	NA	68.84	-0.86	0.46			

Proteins discarded based on CV>100, n=27

UniProt	Protein name	Gene name	Peptide mean	08/017 hESC-RPE to hRPE										08/023 hESC-RPE to hRPE															
				Analysis						Technical replicate CV			Biological	Fold change (mean)	Unadjusted p-value (t-test)	Analysis						Technical replicate CV			Biological	Fold change (mean)	Unadjusted p-value (t-test)		
				1.1	1.2	2.1	2.2	3.1	3.2	1	2	3	CV			1.1	1.2	2.1	2.2	3.1	3.2	1	2	3	CV				
B4DDY1	cDNA FLJ56133, highly similar to Serine/threonine-protein phosphatase 2A 65 kDa regulatory subunit A (Fragment)	PPP2R1A	8.00			-0.3918	2.257805	-0.29775	-1.57484	-1.09601	-0.57069	102.54	58.80	25.47	97.26	-0.28	0.69	-0.51545	1.624378	-0.48512	-2.29245	-0.85588	-0.41016	89.11	78.57	21.67	77.62	-0.49	0.48
O53GF5	Proteasome subunit alpha type (Fragment)	NA	2.00			0.147863	2.568128	-0.21605	5.627716	-0.85977	-2.77438	96.90	136.58	82.13	139.54	0.75	0.63	0.279953	2.280166	1.103141	4.498103	-0.47434	-1.01388	84.86	116.87	26.14	116.35	-0.11	0.39
O53XL8	Proteasome (Prosome, macropain) 26S subunit, ATPase, 1	PSMC1	2.83			-0.7848	-0.11124	0.90071	-0.68624	-0.75556	0.115652	32.43	70.78	41.45	27.88	-0.22	0.32	-1.42089	1.466605	0.398366	0.926756	-0.12183	1.040636	107.75	25.61	54.08	3.97	0.38	0.18
E7EPM6	Long-chain-fatty-acyl-CoA ligase 1	ACSL1	1.83			1.01994	1.104866	1.388994	0.088328	0.033507	-1.73762	4.16	5.76	77.33	49.83	0.32	0.65	0.89551	1.024472	1.776479	-1.05007	0.444257	0.294413	6.32	106.48	7.34	21.92	0.56	0.10
O53F54	Lectin, mannose-binding, 1 variant (Fragment)	NA	1.40			-0.61178	2.077063	-1.10412	-0.51184	0.345705	103.45	88.63	NA	65.52	0.04	0.86	-0.80977	2.314549	-1.43124	-0.24055	-0.01058	112.32	55.26	NA	79.19	-1.04	0.95		
A0A068Y4A0	Protein TMED7-TICAM2	TMED7-TICAM2	3.60			-0.3498	0.394918	-0.34275	-0.51071	-0.83991	35.71	8.22	NA	31.60	-0.33	0.24	-2.99126	0.216114	-0.36815	-1.78756	-0.46791	113.79	64.45	NA	15.14	-0.08	0.07		
A4Q9B0	IQ motif containing GTPase activating protein 1	IQGAP1	4.00			1.985856	-0.75415	-0.24245	0.435135	1.423423	104.60	32.61	NA	40.74	0.57	0.21	1.128331	0.320561	-0.13243	0.461472	2.068721	38.59	28.70	NA	68.92	0.77	0.22		
K7ELC2	40S ribosomal protein S15	RPS15	3.00			0.04286	1.45646	-0.29905	-0.42894	-0.21708	64.23	6.36	NA	52.60	0.11	0.89	-0.92486	1.735819	-0.01808	0.330533	-0.09845	102.80	17.00	NA	39.77	0.20	0.40		
Y9HWH6	Purine nucleoside phosphorylase	PNP	2.00			0.143415	0	-1.5956	0.019095	-3.51167	7.02	NA	118.90	57.37	-0.99	0.20	0.064492	0.369483	-8.83314	-0.09001	-2.32589	14.89	NA	91.89	98.48	-1.56	0.34		
P3527	Keratin, type I cytoskeletal 9	KRT9	2.00			2.635288	1.562258	0.719331	0.178157	-0.58758	50.29	NA	36.67	81.97	0.90	0.32	2.365015	-0.19659	0.600774	0.556493	0.03396	100.45	NA	25.33	49.43	0.67	0.10		
A0A024R324	RHOA homolog gene family, member A, isoform CRA_a	RHOA	4.60			0.00452	-0.411712	-0.47107	1.275839	-2.25874	19.83	NA	118.95	28.94	0.21	0.39	0.254096	0.823228	-0.32212	0.892719	-0.63473	27.54	NA	68.58	29.38	0.20	0.69		
O61AV5	Succinyl-CoA:3-ketoacid-coenzyme A transferase	OXC1	8.50			-0.23313	-0.00504	-0.47547	3.211121	0.244592	NA	22.85	109.34	109.16	0.55	0.59	-0.15355	-0.13743	-0.29803	2.577915	0.138214	NA	7.86	97.40	86.86	0.43	0.59		
P02768	Serum albumin	ALB	74.50			3.898454	3.235203	1.032887	0.830837		31.95	9.89	NA	103.00	2.25	0.34	3.635735	3.125267	0.830628	0.912214		24.76	40.00	NA	99.70	2.13	0.34		
E7EV99	Alpha-adducin	ADD1	2.25			-0.62812	2.092991	0.028328	-1.52105		104.17	NA	NA	84.47	-0.01	0.74	-0.32472	2.223352	-1.52467	-1.15184		100.12	NA	NA	114.61	-0.19	0.53		
P61266	Syntaxin-1B	STX1B	1.50			-1.37588	1.619351		0.436303	-0.80196	109.90	NA	57.22	40.21	-0.03	0.87	-2.28067	1.030957		0.723838	-1.45494	115.54	NA	90.25	7.72	-0.50	0.16		
O8N111	Cell cycle exit and neuronal differentiation protein 1	CEND1	1.00			-1.8046	-1.48824		-1.8195	-2.42108	15.44	NA	29.07	21.95	-1.88	0.08	-4.97739	-0.47235		-1.43891	-1.69376	32.49	NA	12.56	7.32	-2.15	0.17		
O96D8	Heme oxygenase (Decycling) 1	HMOX1	2.50			0.578621	-0.01118		-0.52924	2.540652	3.117282	NA	43.47	27.89	107.12	1.38	0.52	0.682308	-0.39651		2.702681	-0.60512	NA	NA	115.48	73.11	0.60	0.41	
O14980	Exportin-1	XPO1	4.00			0.387273	-0.52924	2.540652	3.117282	NA	43.47	27.89	107.12	1.38	0.52	0.682308	-0.39651		2.702681	-0.60512	NA	NA	115.48	73.11	0.60	0.41			
P35908	Keratin, type II cytoskeletal 2 epidermal	KRT2	2.00			2.308281	2.330105	0.160144			1.07	NA	89.68	1.60	0.46	2.439655	2.923062	-0.18986			23.47	NA	NA	107.83	1.72	0.55			
A0A024R105	N-acetylgalactosaminidase, alpha-, isoform CRA_a	NAGA	1.00			-1.80804	1.935708	-0.4304			121.77	NA	NA	64.00	-0.59	0.14	-1.96365	0.733568	-0.42206			103.64	NA	NA	17.67	-0.55	0.12		
B4DM33	cDNA FLJ52068, highly similar to Microtubule-associated protein RP/EB family member 1	NA	1.33			-0.1978	1.103983	1.793544			59.80	NA	55.58	90.30	0.34	0.40	-0.19892	0.790605	3.052157			46.68	NA	NA	103.09	1.21	0.44		
O53HS0	Glutaminyt-RNA synthetase variant (Fragment)	NA	2.00			1.116794			2.369991		NA	NA	87.16	0.93	0.40	-1.92986	-0.22907		2.17305			NA	NA	122.69	0.00	1.00			
E5RUF2	Bifunctional epoxide hydrolase 2	EPHX2	3.00			-1.12087	1.19344				NA	NA	NA	94.07	0.04	0.98	-2.25503	0.491488				NA	NA	NA	110.79	1.03	0.62		
Q13526	Peptidyl-prolyl cis-trans isomerase NIMA-interacting 1	PIN1	1.00			2.227067			-0.33358		NA	NA	NA	100.43	0.95	0.59	0.972458			0.094827		NA	NA	NA	41.74	-0.53	0.44		
A0A024R444	RAB17, member RAS oncogene family, isoform CRA_a	RAB17	1.00				2.22379	-1.52907			NA	NA	NA	33.41	-1.88	0.12	0.96674	-0.03366				NA	NA	NA	108.45	-2.52	0.33		
B2RSV9	cDNA, FLJ2652, highly similar to Homo sapiens high density lipoprotein binding protein (villin)(HDLBP)	nNA	2.50			1.43295		-1.23882			NA	NA	NA	103.05	0.10	0.95	0.744588			-1.27904		NA							

UniProt	Protein name	Gene name	Peptide mean	08/017 hESC-RPE to hRPE											08/023 hESC-RPE to hRPE												
				Analysis						Technical replicate CV			Biological CV	Fold change (mean)	Unadjusted p-value (t-test)	Analysis						Technical replicate CV			Biological CV	Fold change (mean)	Unadjusted p-value (t-test)
				1.1	1.2	2.1	2.2	3.1	3.2	1	2	3				1.1	1.2	2.1	2.2	3.1	3.2	1	2	3			
Q7Z3HS	Mitogen-activated protein kinase (Fragment)	DKFZp686O0215	2.50	0.234574	-0.1539					18.93	NA	NA	NA	0.04	NA	0.061556	-0.39266			22.08	NA	NA	NA	NA	-0.17	NA	
Q8J014	Ribosomal protein S2	rps2	5.00	-0.24554	-0.09129					7.55	NA	NA	NA	-0.17	NA	-0.21587	0.553102			36.82	NA	NA	NA	NA	0.17	NA	
S4R3Z2	Aldo-keto reductase family 1 member C3	AKR1C3	1.50	-0.26079	-0.05396					10.12	NA	NA	NA	-0.16	NA	-0.44963	-0.01284			21.25	NA	NA	NA	NA	-0.23	NA	
X6R700	Chromatin target of PRMT1 protein	CHT0P	1.00	-0.26599	-0.01392					12.32	NA	NA	NA	-0.14	NA	-1.83378	-0.13697			74.74	NA	NA	NA	NA	-0.99	NA	
P22676	Calretinin	CALB2	3.00	-0.02682	-0.05199					1.23	NA	NA	NA	-0.04	NA	-0.14003	0.362129			24.37	NA	NA	NA	NA	0.11	NA	
Q99729	Heterogeneous nuclear ribonucleoprotein A/B	HNRNPAB	3.00	-0.71141	-1.67322					45.47	NA	NA	NA	-1.19	NA	-0.63116	-1.24721			29.74	NA	NA	NA	NA	-0.94	NA	
AA0248RD08	Mitochondrial carrier homolog 1 (C. elegans), isoform CRA_d	MTC1H	1.00	-1.0642	0.101509					54.22	NA	NA	NA	-0.48	NA	-0.95768	0.283384			57.34	NA	NA	NA	NA	-0.34	NA	
ETC7C4	Apoptotic chromatin condensation inducer in the nucleus	ACIN1	1.50	0.652077	-0.0762					34.96	NA	NA	NA	0.29	NA	0.828239	-0.80934			72.63	NA	NA	NA	NA	0.01	NA	
F5H760	Microssomal glutathione S-transferase 1 (Fragment)	MGST1	1.00	1.847866	1.934864					4.26	NA	NA	NA	1.89	NA	1.921888	1.779544			6.97	NA	NA	NA	NA	1.85	NA	
Q3B790	High-mobility group nucleosome binding domain 1	HMGN1	1.00	-3.14243	-5.88056					104.55	NA	NA	NA	-4.51	NA	-3.81438	-2.31309			29.05	NA	NA	NA	NA	-3.51	NA	
Q75880	Protein SCO1 homolog, mitochondrial	SCO1	1.00			0.092894	-0.78862			NA	41.91	NA	NA	-0.35	NA	0.06893	-1.95454			NA	85.59	NA	NA	NA	-0.94	NA	
O95168	NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit 4	NDUFB4	2.00	0.355721	-1.19972					NA	26.89	NA	NA	0.08	NA	0.050478	-1.31551			NA	62.36	NA	NA	NA	-0.63	NA	
O95372	ADP-protein thioesterase 2	LYPLA2	2.50	0.347412	1.383425					NA	48.70	NA	NA	0.87	NA	0.614932	1.169224			NA	26.84	NA	NA	NA	0.89	NA	
Q15056	Eukaryotic translation initiation factor 4H	EIF4H	1.00	-0.25	-0.12106					NA	6.32	NA	NA	-0.19	NA	0.512927	0.249428			NA	12.88	NA	NA	NA	0.38	NA	
Q6F587	Acylpyruvase FAHD1, mitochondrial	FAHD1	1.50	-1.13581	-0.57799					NA	27.00	NA	NA	-0.86	NA	-0.97466	-0.83764			NA	6.71	NA	NA	NA	-0.91	NA	
Q8J011	Mitochondrial Rho GTPase 2	RHOI2	2.50	-0.37058	-0.40222					NA	1.55	NA	NA	-0.39	NA	-1.03354	-0.42237			NA	29.51	NA	NA	NA	-0.73	NA	
Q9R866	ADP-dependent glucokinase	ADPGK	2.50	-0.43577	0.33461					NA	36.99	NA	NA	-0.05	NA	-0.27498	0.926678			NA	56.12	NA	NA	NA	0.33	NA	
Q9HBL7	Plasminogen receptor (KT)	PLGRKT	1.00	-1.87978	-0.10198					NA	77.56	NA	NA	-0.99	NA	-1.66402	-0.53122			NA	52.83	NA	NA	NA	-1.10	NA	
Q9NRZ7	1-acyl-sn-glycerol-3-phosphate acyltransferase gamma	AGPAT3	2.00	-0.54329	-0.59581					NA	2.57	NA	NA	-0.57	NA	-1.01859	-1.32559			NA	14.99	NA	NA	NA	-1.17	NA	
Q9Y305	ACOT9 coenzyme A thioesterase 9, mitochondrial	ACOT9	3.00	-0.54214	0.717248					NA	58.08	NA	NA	0.09	NA	-0.75206	-0.41563			NA	16.42	NA	NA	NA	-0.58	NA	
O9Y678	Cootamer subunit gamma-1	COG1	2.50	1.095997	1.589923					NA	23.98	NA	NA	1.34	NA	0.552288	1.689343			NA	52.79	NA	NA	NA	-1.12	NA	
AA04248Y50	Guanine nucleotide binding protein (G protein), beta 5, isoform CRA_c	GNB5	2.50	-1.94666	-1.57484					NA	18.12	NA	NA	-1.76	NA	-1.68828	-1.79367			NA	5.16	NA	NA	NA	-1.74	NA	
AA04248X9	Pyruvate dehydrogenase E1 component subunit alpha	PDHA1	6.50	-0.2099	-0.74202					NA	25.79	NA	NA	-0.48	NA	-0.73595	-0.59154			NA	7.07	NA	NA	NA	-0.66	NA	
B2R5I8	Collagen, type XVIII, alpha 1, isoform CRA_b	COL18A1	1.00	0.709241	0.290026					NA	20.40	NA	NA	0.50	NA	1.093805	0.318037			NA	37.13	NA	NA	NA	0.71	NA	
B2R4W48	cDNA FLJ95164, highly similar to Homo sapiens SEC14-like 2 (S. cerevisiae) (SEC14L2), mRNA	GNB3	1.00	0.881128	0.741261					NA	6.85	NA	NA	0.81	NA	1.128596	1.036258			NA	4.52	NA	NA	NA	1.08	NA	
B3K0S1	cDNA PSEC0102 fls. clone NT2RP2003127, highly similar to Prolamin-1	NA	4.50	-1.02271	-1.01124					NA	0.56	NA	NA	-1.02	NA	-1.33681	-1.00177			NA	6.35	NA	NA	NA	-1.17	NA	
B4DPX0	Lon protease homolog	NA	5.50	0	-1.03104					NA	48.49	NA	NA	-0.52	NA	-0.36358	-0.64539			NA	13.77	NA	NA	NA	-0.50	NA	
B4DWV5	GrpE protein homolog	NA	1.50	-0.90041	-0.64319					NA	12.57	NA	NA	-0.77	NA	-1.4581	-0.77455			NA	32.89	NA	NA	NA	-1.12	NA	
B4E364	cDNA FLJ58832, highly similar to Heterogeneous nuclear ribonucleoprotein A3	NA	3.00	0.351573	0.377451					NA	1.27	NA	NA	0.36	NA	0.505638	0.511011			NA	0.26	NA	NA	NA	0.51	NA	
B5BU72	Phosphatidylinositol-binding clathrin assembly protein isoform 2	PICALM	2.00	-0.06756	0.418268					NA	23.59	NA	NA	0.18	NA	0.164149	0.61962			NA	22.14	NA	NA	NA	0.39	NA	
B7Z4P9	cDNA FLJ1678, highly similar to Ras-related protein Rab-18	NA	1.50	-0.59801	-0.88611					NA	14.07	NA	NA	-0.74	NA	-0.98015	-1.24922			NA	13.15	NA	NA	NA	-1.11	NA	
B7Z8X5	cDNA FLJ61541, highly similar to Homo sapiens PDZ and LIM domain 5 (PDLIM5), transcript variant 2, mRNA	NA	1.00	0.870004	-0.05467					NA	43.83	NA	NA	0.41	NA	1.393173	0.298472			NA	51.22	NA	NA	NA	0.85	NA	
B3D5M5	Collagen, type XVIII, alpha 1, isoform CRA_b	COL18A1	2.00	-0.18709	-0.85383					NA	32.11	NA	NA	-0.52	NA	0.269515	-0.50233			NA	36.95	NA	NA	NA	-0.12	NA	
F1T105	Guanine nucleotide binding protein (G protein), beta polypeptide 3	GNB3	6.00	-0.07201	-0.58193					NA	24.74	NA	NA	-0.33	NA	-0.49472	0.311748			NA	38.53	NA	NA	NA	-0.99	NA	
FGYQ1	V-type proton ATPase subunit d1	ATP8V0D1	1.50	-0.03895	-0.74379					NA	33.87	NA	NA	-0.39	NA	-0.95825	-0.10981			NA	40.43	NA	NA	NA	-0.53	NA	
I6L975	Hydroxysteroid dehydrogenase like 1	HSDL1	2.00	-0.30821	-0.27428					NA	1.66	NA	NA	-0.29	NA	-1.09114	-0.89092			NA	9.80	NA	NA	NA	-0.99	NA	
J30T77	Serum paraoxonase/arylesterase 2	PON2	1.50	0.264227	-1.37154					NA	72.56	NA	NA	-0.55	NA	0.159172	-0.93608			NA	51.24	NA	NA	NA	-0.39	NA	
K7EP0	Transmembrane protein 205	TMEM205	1.00	0.378532	1.194082					NA	38.94	NA	NA	0.79	NA	0.196751	1.005667			NA	38.64	NA	NA	NA	0.60	NA	
O53F8	cDNA FLJ36526 fls. clone TRACH2003347, highly similar to NSF1L cofactor p47 (Fragment)	NA	10.00	1.349078	1.172724					NA	8.63	NA	NA	1.26	NA	1.501622	1.630012			NA	6.29	NA	NA	NA	1.57	NA	
O5478	Electron transfer flavoprotein ubiquinone oxidoreductase	ETFDH	2.00	1.091775	0.434354					NA	31.68	NA	NA	0.76	NA	0.560719	0.187399			NA	18.20	NA	NA	NA	0.37	NA	
O5EK51	Lactoferrin	NA	4.00	1.782261	1.334923					NA	21.75	NA	NA	1.56	NA	1.434393	1.055448			NA	18.47	NA	NA	NA	1.24	NA	
O5JP88	Putative uncharacterized protein DKFZp686O1117	DKFZp686O1117	1.50	1.490775	1.428784					NA	3.04	NA	NA	1.46	NA	1.099131	0.549625			NA	26.61	NA	NA	NA	0.82	NA	
O5TG47	Xaotin aminopeptidase 1	XNPEP1	2.00	0.353648	0.834981					NA	23.38	NA	NA	0.59	NA	-0.11044	0.579991			NA	38.21	NA	NA	NA	0.23	NA	
O6G4C2	NDUFA7 protein (Fragment)	NDUFA7	2.50	-0.89449	-0.94732					NA	2.59	NA	NA	-0.92	NA	-0.79313	-0.28998			NA	24.41	NA	NA	NA	-0.54	NA	
O6PK92	AP3D1 protein (Fragment)	AP3D1	1.00	1.230172	0.738261					NA	23.88	NA	NA	0.98	NA	0.918669	-0.94723			NA	80.53	NA	NA	NA	-0.01	NA	
O6ZS43	cDNA FLJ45695 fls. clone FEBRA2013570, highly similar to 2-oxoisovalerate dehydrogenase alpha subunit, rNA	NA	1.00	-0.39582	-0.25905					NA	6.70	NA	NA	-0.33	NA	-0.6374	-0.2055			NA	21.01	NA	NA	NA	-0.42	NA	
Q7Z421	Epsilon-COP	NA	1.00	-0.79134	0.822364					NA	71.76	NA	NA	0.02	NA	-0.05047	-0.42949			NA	18.47	NA	NA	NA	-0.24	NA	
P08133	Annexin A6	ANXA6	42.00	-1.44729	-1.23683					NA	10.30	NA	NA	-1.34	NA	-1.53669	-1.14677			NA	19.00	NA	NA	NA	-1.34	NA	
O92542	Nicotinacin	NCSTN	1.50	-0.23745	-0.94225					NA	33.87	NA	NA	-0.59	NA	-0.34965	-0.5942										

UniProt	Protein name	Gene name	Peptide mean	08/017 hESC-RPE to hRPE													08/023 hESC-RPE to hRPE												
				Analysis						Technical replicate CV			Biological	Fold change (mean)	Unadjusted p-value (t-test)	Analysis						Technical replicate CV			Biological	Fold change (mean)	Unadjusted p-value (t-test)		
				1.1	1.2	2.1	2.2	3.1	3.2	1	2	3	CV			1.1	1.2	2.1	2.2	3.1	3.2	1	2	3	CV				
C99426	Tubulin-folding cofactor B	TBCB	1.00	0.362992						NA	NA	NA	NA	0.37	NA	0.313489							NA	NA	NA	NA	0.31	NA	
C99RF8	Serine/threonine-protein phosphatase CPPED1	CPPED1	1.00	0.160775						NA	NA	NA	NA	0.16	NA	-0.29592							NA	NA	NA	NA	-0.30	NA	
C9H479	Fructosamine-3-kinase	FN3K	1.00	-0.03648						NA	NA	NA	NA	-0.04	NA	0.850284							NA	NA	NA	NA	0.85	NA	
C9Y2J2	Band 4.1-like protein 3	EPB41L3	4.00	-2.1433						NA	NA	NA	NA	-2.14	NA	-2.88547							NA	NA	NA	NA	-2.89	NA	
C9Y3B4	Splicing factor 3B subunit 6	SF3B6	1.00	0.79994						NA	NA	NA	NA	0.80	NA	1.036564							NA	NA	NA	NA	1.04	NA	
A0A024R040	Succinyl-CoA:3-ketoacid-coenzyme A transferase	COXCT1	6.00	0.247565						NA	NA	NA	NA	0.25	NA	0.289666							NA	NA	NA	NA	0.29	NA	
A0A024R1N8	Solan carrier 16 (Monocarboxylic acid transporters), member 8, isoform CRA_a	SCL16A8	1.00	0.103648						NA	NA	NA	NA	0.10	NA	0.488929							NA	NA	NA	NA	0.49	NA	
A0A024R1U2	PHD finger protein 5A, isoform CRA_a	PHF5A	1.00	-0.86502						NA	NA	NA	NA	-0.57	NA	0.312078							NA	NA	NA	NA	0.31	NA	
A0A024R4T4	Ubiquitin-conjugating enzyme E2M (UBC12 homolog, yeast), isoform CRA_a	UBE2M	1.00	0.645296						NA	NA	NA	NA	0.65	NA	0.350222							NA	NA	NA	NA	0.35	NA	
A0A024R4X0	NADH-cytochrome b5 reductase	CYB5R3	5.00	-0.23068						NA	NA	NA	NA	-0.23	NA	-0.30375							NA	NA	NA	NA	-0.30	NA	
A0A024RBC7	Calcium-transporting ATPase	ATP2B1	7.00	-1.17851						NA	NA	NA	NA	-1.18	NA	-0.71356							NA	NA	NA	NA	-0.71	NA	
A0A024RDY0	RAN binding protein 5, isoform CRA_d	RANBP5	3.00	0.311616						NA	NA	NA	NA	0.31	NA	-0.76402							NA	NA	NA	NA	-0.76	NA	
A0A087WZ07	Beta-soluble NSF attachment protein	NAPB	2.00	-0.82468						NA	NA	NA	NA	-0.82	NA	-0.38927							NA	NA	NA	NA	-0.39	NA	
A0A0A0M551	Gelsolin	GSN	11.00	0.548617						NA	NA	NA	NA	0.55	NA	0.560061							NA	NA	NA	NA	0.56	NA	
A0A009S07	Band 4.1-like protein 1	EPB41L1	1.00	0.558408						NA	NA	NA	NA	0.56	NA	0.461661							NA	NA	NA	NA	0.46	NA	
A0A009YU0	Protein carnegy homolog 4 (Fragment)	CNP74	1.00	-0.70497						NA	NA	NA	NA	-0.70	NA	1.226519							NA	NA	NA	NA	1.23	NA	
A1L306	TNR protein	TNR	1.00	-0.17807						NA	NA	NA	NA	-0.18	NA	1.5142							NA	NA	NA	NA	-1.51	NA	
A7E2D8	Calcium-transporting ATPase	ATP2B4	14.00	-0.81461						NA	NA	NA	NA	-0.81	NA	-0.90503							NA	NA	NA	NA	-0.91	NA	
A8K6V3	cDNA FLJ78677, highly similar to Homo sapiens splicing factor 3b, subunit 3, 130kDa (SF3B3), mRNA	NA	2.00	0.81948						NA	NA	NA	NA	0.82	NA	-0.14317							NA	NA	NA	NA	-0.14	NA	
B1PS43	Myosin heavy chain 11 smooth muscle isoform	MYH11	3.00	2.760716						NA	NA	NA	NA	2.76	NA	4.146942							NA	NA	NA	NA	4.15	NA	
B2R7W4	cDNA, FLJ93632, highly similar to Homo sapiens heterogeneous nuclear ribonucleoprotein R (HNRPR), mRNA	NA	6.00	-0.27121						NA	NA	NA	NA	-0.27	NA	-0.40688							NA	NA	NA	NA	-0.41	NA	
B2RAC04	Sodium/potassium-transporting ATPase subunit alpha	NA	19.00	0.696118						NA	NA	NA	NA	0.70	NA	-0.08205							NA	NA	NA	NA	-0.08	NA	
B2RB89	Protein kinase, cAMP-dependent, catalytic, beta, isoform CRA_a	PRKACB	1.00	-0.72664						NA	NA	NA	NA	-0.73	NA	-0.88911							NA	NA	NA	NA	-0.89	NA	
B3KNU0	cDNA FLJ30470 fs, clone BRAWH1000040, highly similar to Rap1 GTPase-GDP dissociation stimulator 1	NA	4.00	-2.77466						NA	NA	NA	NA	-2.77	NA	-0.70497							NA	NA	NA	NA	-0.70	NA	
B3KPP0	cDNA FLJ1447 fs, clone NT2NE200913, highly similar to Protein phosphatase 2C isoform beta (Cc, 3.1, 3.1NA)	NA	1.00	1.26994						NA	NA	NA	NA	1.27	NA	1.571018							NA	NA	NA	NA	1.57	NA	
B3KY11	cDNA FLN46571 fs, clone THYMUJ041428, highly similar to Probable ATP-dependent RNA helicase DDX23 (NA)	NA	1.00	0.164923						NA	NA	NA	NA	0.16	NA	0.24206							NA	NA	NA	NA	-0.24	NA	
B4DFG0	Protein DEK	DEK	1.00	-0.02742						NA	NA	NA	NA	-0.03	NA	0.483297							NA	NA	NA	NA	0.48	NA	
B4DIS3	Dpy-30-like protein, isoform CRA_b	LOC84661	2.00	0.094659						NA	NA	NA	NA	0.09	NA	-1.32885							NA	NA	NA	NA	-1.33	NA	
B4DJB1	cDNA FLJ53049, highly similar to Ap-2 complex subunit mu-1	NA	2.00	0.497803						NA	NA	NA	NA	0.50	NA	0.532603							NA	NA	NA	NA	0.53	NA	
B4DL06	cDNA FLJ59565, highly similar to Beta-catenin	NA	2.00	0.263559						NA	NA	NA	NA	0.26	NA	0.502294							NA	NA	NA	NA	0.50	NA	
B4DLT2	cDNA FLJ56637, highly similar to Nuclear pore complex protein Nup155	NA	1.00	-0.45813						NA	NA	NA	NA	-0.46	NA	-2.29566							NA	NA	NA	NA	-2.30	NA	
B4DP10	cDNA FLJ55118, highly similar to Hemeryk carrier-associated membrane protein 1	NA	1.00	-1.35407						NA	NA	NA	NA	-1.35	NA	-0.5684							NA	NA	NA	NA	-0.57	NA	
B4DPJ2	Annexin	NA	4.00	1.103297						NA	NA	NA	NA	1.10	NA	0.903849							NA	NA	NA	NA	0.90	NA	
B4DQV5	cDNA FLJ59374, highly similar to Homo sapiens caldesmon 1 (CALD1), transcript variant 2, mRNA	NA	1.00	1.252283						NA	NA	NA	NA	1.25	NA	1.653291							NA	NA	NA	NA	1.65	NA	
B4DR82	cDNA FLN60331, highly similar to Nicastin	NA	2.00	0.031927						NA	NA	NA	NA	0.03	NA	0.047631							NA	NA	NA	NA	0.05	NA	
B4DSU5	cDNA FLJ55583, highly similar to Polyglymidine tract-binding protein 2	NA	2.00	-0.61028						NA	NA	NA	NA	-0.61	NA	-1.04677							NA	NA	NA	NA	-1.05	NA	
B4DTS5	cDNA FLJ58882, highly similar to 26S proteasome non-ATPase regulatory subunit 11	NA	2.00	0.637852						NA	NA	NA	NA	0.64	NA	1.594717							NA	NA	NA	NA	1.59	NA	
B4DXZ7	Thioredoxin domain containing, isoform CRA_b	TXNDC	1.00	-0.10533						NA	NA	NA	NA	-0.11	NA	-0.49771							NA	NA	NA	NA	-0.50	NA	
B4E091	cDNA FLJ55438, highly similar to Splicing factor 3 subunit 1	NA	1.00	-0.07391						NA	NA	NA	NA	-0.07	NA	-0.71716							NA	NA	NA	NA	-0.72	NA	
B7Z2F7	cDNA FLJ54655, highly similar to Heat shock 70 kDa protein 12A	NA	1.00	-0.30704						NA	NA	NA	NA	-0.31	NA	-0.99431							NA	NA	NA	NA	-0.99	NA	
B7Z6J8	cDNA FLJ53665, highly similar to Four and a half LIM domains protein 1	NA	2.00	-0.77499						NA	NA	NA	NA	-0.77	NA	-0.30998							NA	NA	NA	NA	-0.31	NA	
B8Z2B8	CB1 cannabinoid receptor-interacting protein 1	CNRIP1	1.00	-1.83659						NA	NA	NA	NA	-1.84	NA	-0.98128							NA	NA	NA	NA	-0.98	NA	
D3SD00	Protein kinase C and casein kinase substrate in neurons 3, isoform CRA_b	RACSN3	1.00	0.890599						NA	NA	NA	NA	0.89	NA	-0.50266							NA	NA	NA	NA	-0.50	NA	
D3DUG9	Ubiquitin carboxyl-terminal hydrolase	USP14	2.00	0.503507						NA	NA	NA	NA	0.50	NA	0.349363							NA	NA	NA	NA	0.35	NA	
E7EPA1	Phosphoribosyl pyrophosphate synthase-associated protein 2 (Fragment)	PRPSAP2	1.00	0.552783						NA	NA	NA	NA	0.55	NA	0.055454							NA	NA	NA	NA	0.06	NA	
E9PP60	GDP-L-fucose synthase	TSTA3	1.00	0.845786						NA	NA	NA	NA	0.85	NA	0.056929							NA	NA	NA	NA	0.06	NA	
F4ZW65	NF90b	NA	11.00	0.262575						NA	NA	NA	NA	0.26	NA	0.272716							NA	NA	NA	NA	0.27	NA	
F8RH99	MHC class I antigen (Fragment)	HLA-C	2.00	1.096593						NA	NA	NA	NA	1.10	NA	0.437432							NA	NA	NA	NA	0.44	NA	
F8VZQ9	SAP domain-containing ribonucleoprotein	SARNP	2.00	1.005599						NA	NA	NA	NA	1.01	NA	0.777626							NA	NA	NA	NA	0.78	NA	
G3V500	Echinoderm microtubule-associated protein-like 1 (Fragment)	EMILT1	1.00	-0.59177						NA	NA	NA	NA	-0.59	NA	-0.36903							NA	NA	NA	NA	-0.37	NA	
H0YMM8	40S ribosomal protein S27	RPS27L	1.00	0.613613						NA	NA	NA	NA	0.61	NA	0.599931							NA	NA	NA	NA	0.60	NA	
H7B3Z6	RNA binding protein EWS (Fragment)	NA	1.00	1.84646						NA	NA	NA	NA	1.85	NA	0.981925							NA	NA	NA	NA	0.98	NA	
H7BV58	Protein-L-isoaspartate O-methyltransferase	PCMT1	4.00	1.380978						NA	NA	NA	NA	1.38	NA	1.431839							NA	NA	NA	NA	1.43	NA	
H7BY11	Tropomyosin 1 (Alpha), isoform CRA_m	TPM1	4.00	0.525008						NA	NA	NA	NA	0.53	NA	1.100908							NA	NA	NA	NA	1.10	NA	
H7C3G9	N-acetyl-D-glucosamine kinase	NAGK	1.00	0.639116						NA	NA	NA	NA	0.64	NA	0.87349							NA	NA	NA	NA	0.19	NA	
K7ER9	Apolipoprotein C-I (Fragment)	APOC1	1.00	-0.77466						NA	NA	NA	NA	-0.77	NA	-1.16168							NA	NA	NA	NA	-1.16	NA	
Q05CK9	SYNCRIP protein (Fragment)	SYNCRIP	5.00	-0.85463						NA	NA	NA	NA	-0.85	NA	-1.49554							NA	NA	NA	NA	-1.50	NA	
Q53HD9	Tetrapeptide repeat domain 1 variant (Fragment)	NA	1.00	1.394968						NA	NA	NA	NA	1.39	NA	1.406356							NA	NA	NA	NA	1.41	NA	
Q53HW7	Sulfide dehydrogenase like (Fragment)	NA	1.00	1.412673						NA	NA	NA	NA	1.41	NA	0.781455							NA	NA	NA	NA	0.78	NA	
C53TX0	Putative uncharacterized protein GLS (Fragment)	GLS	2.00	1.096961						NA	NA	NA	NA	1.10	NA	1.497335							NA	NA	NA	NA	1.50	NA	
C																													

UniProt	Protein name	Gene name	Peptide mean	08/017 hESC-RPE to hRPE									08/023 hESC-RPE to hRPE														
				Analysis						Technical replicate CV			Biological	Fold change (mean)	Unadjusted p-value (t-test)	Analysis						Technical replicate CV			Biological	Fold change (mean)	Unadjusted p-value (t-test)
				1.1	1.2	2.1	2.2	3.1	3.2	1	2	3				CV	1.1	1.2	2.1	2.2	3.1	3.2	1	2			
X5D927	Cytochrome c oxidase subunit 1	COX1	1.00			-4.02138		NA	NA	NA	NA		-4.02	NA									-1.89	NA			
P02790	Hemopexin	HPX	1.00			1.191133		NA	NA	NA	NA		1.19	NA		1.33948	NA	NA	NA	NA	NA	NA	1.34	NA			
P05937	Calbindin	CALB1	1.00			0.16313		NA	NA	NA	NA		0.16	NA		-0.38091	NA	NA	NA	NA	NA	NA	-0.38	NA			
P22307	Non-specific lipid-transfer protein	SCP2	5.00			0.595664		NA	NA	NA	NA		0.60	NA		0.422823	NA	NA	NA	NA	NA	NA	0.42	NA			
P61457	Pterin-4-alpha-carbinolamine dehydratase	PCBD1	3.00			-0.13079		NA	NA	NA	NA		-0.13	NA		0.094827	NA	NA	NA	NA	NA	NA	0.09	NA			
Q3KQV9	UDP-N-acetylhexosamine pyrophosphorylase-like protein 1	UAP1L1	1.00			-0.72728		NA	NA	NA	NA		-0.73	NA		-0.63493	NA	NA	NA	NA	NA	NA	-0.63	NA			
Q8U442	Polydendrin-binding protein 2	P4ABPN1	2.00			-1.39218		NA	NA	NA	NA		-1.39	NA		-1.43524	NA	NA	NA	NA	NA	NA	-1.44	NA			
Q8N2C7	Protein unc-80 homolog	UNC80	1.00			3.025941		NA	NA	NA	NA		3.03	NA		3.782556	NA	NA	NA	NA	NA	NA	3.78	NA			
Q8N7X1	RNA-binding motif protein 3, linc-like-3	RBMXL3	1.00			0.140998		NA	NA	NA	NA		0.14	NA		-1.30742	NA	NA	NA	NA	NA	NA	-1.31	NA			
Q8TDZ2	Protein-methionine sulfoxide oxidase MICAL1	MICAL1	1.00			0.272486		NA	NA	NA	NA		0.27	NA		-0.32986	NA	NA	NA	NA	NA	NA	-0.33	NA			
Q96CS3	FAS-associated factor 2	FAF2	2.00			0.035009		NA	NA	NA	NA		0.04	NA		0.312094	NA	NA	NA	NA	NA	NA	0.31	NA			
Q9H2D6	TRIO and F-actin-binding protein	TRIOBP	1.00			0.460988		NA	NA	NA	NA		0.46	NA		0.572989	NA	NA	NA	NA	NA	NA	0.57	NA			
Q9H444	Charged multivesicular body protein 4b	CHMP4B	1.00			1.026113		NA	NA	NA	NA		1.03	NA		0.635021	NA	NA	NA	NA	NA	NA	0.64	NA			
A0A024R2M6	Acetyl-Coenzyme A acyltransferase 1 (Peroxisomal 3-oxoacyl-Coenzyme A thiolase), isoform CRA_a	ACAA1	2.00			-0.46691		NA	NA	NA	NA		-0.47	NA		-0.95341	NA	NA	NA	NA	NA	NA	-0.95	NA			
A0A024R7A8	Aldo-keto reductase family 1, member B1 (Aldose reductase), isoform CRA_a	AKR1B1	3.00			0.626053		NA	NA	NA	NA		0.63	NA		0.104861	NA	NA	NA	NA	NA	NA	0.10	NA			
A0A024R9P3	HECT, UBA, and WWF domain containing 1, isoform CRA_a	HUIE1	1.00			1.836441		NA	NA	NA	NA		1.84	NA		0.549022	NA	NA	NA	NA	NA	NA	0.55	NA			
A0A024R4B2	Calpastatin, isoform CRA_a	CST	2.00			-0.48109		NA	NA	NA	NA		-0.48	NA		-0.417732	NA	NA	NA	NA	NA	NA	-0.42	NA			
A0A024RDE8	PDZ and LIM domain 5, isoform CRA_c	PDLIM5	3.00			0.44793		NA	NA	NA	NA		0.45	NA		0.18344	NA	NA	NA	NA	NA	NA	0.18	NA			
A0A087WZE4	Spectrin alpha, erythrocytic 1	SPTA1	3.00			-0.04753		NA	NA	NA	NA		-0.05	NA		0.142522	NA	NA	NA	NA	NA	NA	0.14	NA			
AK83K1	cDNA FLJ78096, highly similar to Homo sapiens actin, alpha, cardiac muscle (ACTC), mRNA	NA	25.00			0.762914		NA	NA	NA	NA		0.76	NA		0.09289	NA	NA	NA	NA	NA	NA	0.09	NA			
B2R655	UMP-CMP kinase	CMPK	2.00			-0.99923		NA	NA	NA	NA		-1.00	NA		0.996688	NA	NA	NA	NA	NA	NA	1.00	NA			
B2R8A2	cDNA, FLJ93804, highly similar to Homo sapiens gp25L2 protein (HSGP25L2G), mRNA	NA	2.00			-0.23717		NA	NA	NA	NA		-0.24	NA		0.089396	NA	NA	NA	NA	NA	NA	0.09	NA			
B2R919	cDNA, FLJ94551	NA	1.00			0.100752		NA	NA	NA	NA		0.10	NA		0.257441	NA	NA	NA	NA	NA	NA	0.26	NA			
B3KP20	cDNA FLJ2485 fs, clone SKNMC2001596, highly similar to Ankyrin repeat and FYVE domain-containing protein 1	NA	1.00			-1.70068		NA	NA	NA	NA		-1.70	NA		0.2346	NA	NA	NA	NA	NA	NA	0.23	NA			
B3KZ77	cDNA FLJ40986 fs, clone UTERU2014898, highly similar to Vacuolar ATP synthase subunit H (EC 3.6.3.14)	NA	2.00			-0.00119		NA	NA	NA	NA		0.00	NA		0.115207	NA	NA	NA	NA	NA	NA	0.12	NA			
B4DBD9	cDNA FLJ56339, highly similar to Signal peptidase complex subunit 2 (EC 3.4.-.-)	NA	1.00			-1.05797		NA	NA	NA	NA		-1.06	NA		-0.08957	NA	NA	NA	NA	NA	NA	-0.09	NA			
B4DEX8	S-adenosylmethionine synthase	MAT2A	2.00			0.38488		NA	NA	NA	NA		0.38	NA		0.001654	NA	NA	NA	NA	NA	NA	0.00	NA			
B4DJU4	cDNA FLJ53344, highly similar to Splicing factor 1	NA	2.00			0.341519		NA	NA	NA	NA		0.34	NA		-0.77121	NA	NA	NA	NA	NA	NA	-0.77	NA			
B4DSO5	cDNA FLJ53608, highly similar to Protein transport protein Sec23A	NA	1.00			-0.54512		NA	NA	NA	NA		-0.55	NA		-0.23069	NA	NA	NA	NA	NA	NA	-0.23	NA			
B4DWL1	cDNA FLJ59240, highly similar to Far upstream element-binding protein 1	NA	4.00			0.687234		NA	NA	NA	NA		0.69	NA		0.776332	NA	NA	NA	NA	NA	NA	0.78	NA			
B7Z768	cDNA FLJ52138, highly similar to NADH dehydrogenase (ubiquinone) 1 alpha subcomplex subunit 8 (EC 1.6 NA)	NA	1.00			-0.27219		NA	NA	NA	NA		-0.27	NA		0.288924	NA	NA	NA	NA	NA	NA	0.29	NA			
B7Z9A0	cDNA FLJ56212, highly similar to Gelsolin	NA	12.00			0.145292		NA	NA	NA	NA		0.15	NA		0.415865	NA	NA	NA	NA	NA	NA	0.42	NA			
C1PH4Z	Kinesin-like protein	KIF5B-ALK	3.00			-0.5669		NA	NA	NA	NA		-0.57	NA		0.122633	NA	NA	NA	NA	NA	NA	0.12	NA			
D6R6G1	Septin 11, isoform CRA_b	SEPT11	2.00			-0.35184		NA	NA	NA	NA		-0.35	NA		-0.16291	NA	NA	NA	NA	NA	NA	-0.16	NA			
E9PDG8	Claudin coat assembly protein AP180	SNAP91	2.00			-0.64388		NA	NA	NA	NA		-0.64	NA		-1.37876	NA	NA	NA	NA	NA	NA	-1.38	NA			
F5H579	Probable cysteine--TRNA ligase, mitochondrial (Fragment)	CARS2	1.00			-1.43727		NA	NA	NA	NA		-1.44	NA		-0.80911	NA	NA	NA	NA	NA	NA	-0.81	NA			
G3V1D3	Dipeptidyl peptidase 3	DPP3	2.00			0.484059		NA	NA	NA	NA		0.48	NA		0.241613	NA	NA	NA	NA	NA	NA	0.24	NA			
H3BRU6	Poly(rC)-binding protein 2 (Fragment)	PCBP2	4.00			0.144407		NA	NA	NA	NA		0.14	NA		0.231081	NA	NA	NA	NA	NA	NA	0.23	NA			
H3BU49	ADP-ribosylation factor-like protein 2-binding protein	ARL2BP	1.00			0.059227		NA	NA	NA	NA		0.06	NA		-0.39961	NA	NA	NA	NA	NA	NA	-0.40	NA			
H7C2W6	Prolyl 3-hydroxylase 1 (Fragment)	P3H1	1.00			0.375967		NA	NA	NA	NA		0.38	NA		0.046992	NA	NA	NA	NA	NA	NA	0.05	NA			
H7C3S9	COP9 signalosome complex subunit 8 (Fragment)	COP8	1.00			1.324875		NA	NA	NA	NA		1.32	NA		0.509296	NA	NA	NA	NA	NA	NA	0.50	NA			
I3L4A5	Inositol polyphosphate 5-phosphatase K (Fragment)	INPP5K	1.00			-0.329		NA	NA	NA	NA		-0.33	NA		-0.46547	NA	NA	NA	NA	NA	NA	-0.47	NA			
IGOKL3	Septin 4	SEPT4	1.00			-1.14081		NA	NA	NA	NA		-1.14	NA		-0.66019	NA	NA	NA	NA	NA	NA	-0.66	NA			
K7ESP4	Dehydrophosphatase kinase domain-containing protein (Fragment)	DCADK	1.00			0.751916		NA	NA	NA	NA		0.75	NA		0.339153	NA	NA	NA	NA	NA	NA	0.34	NA			
Q0VGD6	HNRPR protein (Fragment)	HNRPR	3.00			-1.90906		NA	NA	NA	NA		-1.91	NA		-0.7495	NA	NA	NA	NA	NA	NA	-0.75	NA			
Q13747	Alpha-1 antitrypsin (Fragment)	NA	1.00			-1.17999		NA	NA	NA	NA		-1.18	NA		-2.03368	NA	NA	NA	NA	NA	NA	-2.03	NA			
Q32XH3	Ribosomal protein L18a-like protein	NA	1.00			0.708605		NA	NA	NA	NA		0.71	NA		1.19586	NA	NA	NA	NA	NA	NA	1.20	NA			
Q59FV6	ARP3 actin-related protein 3 homolog variant (Fragment)	NA	3.00			-0.69434		NA	NA	NA	NA		-0.69	NA		0.270871	NA	NA	NA	NA	NA	NA	0.27	NA			
Q59GX6	DEAD/H (Asp-Glu-Ala-Asp/His) box polypeptide 3 variant (Fragment)	NA	2.00			0.720701		NA	NA	NA	NA		0.72	NA		-0.67431	NA	NA	NA	NA	NA	NA	-0.67	NA			
Q63HL5	Putative uncharacterized protein DKFZp686G12235	NA	2.00			-0.27591		NA	NA	NA	NA		-0.28	NA		0.204768	NA	NA	NA	NA	NA	NA	0.20	NA			
Q64WB3	Putative uncharacterized protein DKFZp686E191	NA	1.00			-0.16033		NA	NA	NA	NA		-0.16	NA		-0.73462	NA	NA	NA	NA	NA	NA	-0.73	NA			
Q64Z48	US-116KD protein	US116KD	2.00			0.057079		NA	NA	NA	NA		0.06	NA		-0.26035	NA	NA	NA	NA	NA	NA	-0.26	NA			
Q67T07	cDNA FLJ4352 fs, clone TRACH3006412, highly similar to Homo sapiens COP9 constitutive photomorphog	NA	1.00			-1.65243		NA	NA	NA	NA		-1.65	NA		-0.87889	NA	NA	NA	NA	NA	NA	-0.88	NA			
Q724W5	RNA helicase	NA	1.00			0.556849		NA	NA	NA	NA		0.56	NA		0.384369	NA	NA	NA	NA	NA	NA	0.38	NA			
Q8NHX0	Mitogen-activated protein kinase	NA	2.00			0.284472		NA	NA	NA	NA		0.28	NA		-0.16291	NA	NA	NA	NA	NA	NA	-0.16	NA			
Q8TBR3	Fusion (Involved in t(12;16) in malignant liposarcoma)	FUS	1.00			-1.00231		NA	NA	NA	NA		-1.00	NA		-0.57302	NA	NA	NA	NA	NA	NA	-				

UniProt	Protein name	Gene name	Peptide mean	08/017 hESC-RPE to hRPE											08/023 hESC-RPE to hRPE															
				Analysis						Technical replicate CV			Biological	Fold change (mean)	Unadjusted p-value (t-test)	Analysis						Technical replicate CV			Biological	Fold change (mean)	Unadjusted p-value (t-test)			
				1.1	1.2	2.1	2.2	3.1	3.2	1	2	3	CV			1.1	1.2	2.1	2.2	3.1	3.2	1	2	3	CV					
A1KY36	Cell proliferation-inducing protein 41	NA	1.00						0.934145	NA	NA	NA	NA	0.93	NA					0.549014	NA	NA	NA	NA					0.55	NA
A4D275	Actin related protein 2/3 complex, subunit 1B, 41kDa	ARPC1B	2.00						1.051299	NA	NA	NA	NA	1.05	NA					0.91694	NA	NA	NA	NA					0.92	NA
A8K8A6	cDNA FLJ76931, highly similar to Homo sapiens testes-specific heterogenous nuclear ribonucleoprotein G-1NA		1.00						0.081065	NA	NA	NA	NA	0.08	NA					-0.41215	NA	NA	NA	NA					-0.41	NA
A8KA05	cDNA FLJ77404, highly similar to Homo sapiens small nuclear ribonucleoprotein 70kDa polypeptide (RNP A NA)		1.00						0.305555	NA	NA	NA	NA	0.31	NA					0.334526	NA	NA	NA	NA					0.33	NA
B2R659	cDNA, FLJ93097, highly similar to Homo sapiens low density lipoprotein receptor-related protein associate NA		1.00						-0.13347	NA	NA	NA	NA	-0.13	NA					0.423736	NA	NA	NA	NA					0.42	NA
B2R984	cDNA, FLJ94268, highly similar to Homo sapiens histone 1, H1e (HIST1H1E), mRNA		13.00						-0.48413	NA	NA	NA	NA	-0.48	NA					-1.43744	NA	NA	NA	NA					-1.44	NA
B2R985	cDNA, FLJ94440, highly similar to Homo sapiens chaperonin containing TCP1, subunit 6A (beta 1)(CTC6A), mRNA		9.00						-0.95620	NA	NA	NA	NA	-0.96	NA					-0.57701	NA	NA	NA	NA					-0.52	NA
B2R947	cDNA, FLJ95399, highly similar to Homo sapiens adenosine monophosphate deaminase 2 (isoform L)(AMPD NA)		1.00						0.220898	NA	NA	NA	NA	0.22	NA					0.07234	NA	NA	NA	NA					0.07	NA
B3K0H1	cDNA FLR0452 fcs, clone NT2RP3001475, highly similar to Splicing factor 3B subunit 3		2.00						0.555936	NA	NA	NA	NA	0.56	NA					-0.06581	NA	NA	NA	NA					-0.07	NA
B3K1P9	cDNA FLJ38578 fcs, clone HCHON2007674, highly similar to NUCLEOLIN		11.00						-0.14577	NA	NA	NA	NA	-0.15	NA					-0.2815	NA	NA	NA	NA					-0.28	NA
B3KUI4	cDNA FLJ39967 fcs, clone SPLNE2027488, highly similar to Homo sapiens family with sequence similarity 82 NA		1.00						-0.64123	NA	NA	NA	NA	-0.64	NA					-0.47474	NA	NA	NA	NA					-0.47	NA
B4DDN7	cDNA FLJ59839, highly similar to Homo sapiens biglycan (BGN), mRNA		1.00						1.521497	NA	NA	NA	NA	1.52	NA					1.33019	NA	NA	NA	NA					1.33	NA
B4DE59	cDNA FLJ60424, highly similar to Junction plakoglobin		6.00						0.956457	NA	NA	NA	NA	0.96	NA					0.952002	NA	NA	NA	NA					0.95	NA
B4DFR2	cDNA FLJ59194, moderately similar to Dynein light chain 2A, cytoplasmic		1.00						-0.30113	NA	NA	NA	NA	-0.30	NA					-0.24147	NA	NA	NA	NA					-0.24	NA
B4DI21	Ermin	ERMN	1.00						0.226828	NA	NA	NA	NA	0.23	NA					-0.20844	NA	NA	NA	NA					-0.21	NA
B4DPP9	cDNA FLJ51032, highly similar to CD9 antigen		1.00						-0.14639	NA	NA	NA	NA	-0.15	NA					-1.03171	NA	NA	NA	NA					-1.03	NA
B4DMW1	cDNA FLJ57622, highly similar to Clusterin		1.00						0.130059	NA	NA	NA	NA	0.13	NA					0.660219	NA	NA	NA	NA					0.66	NA
B4E2ZA	Eukaryotic translation initiation factor 3 subunit C	EIF3C	1.00						0.807275	NA	NA	NA	NA	0.81	NA					-0.67929	NA	NA	NA	NA					-0.68	NA
B4E304	cDNA FLJ53962, highly similar to AP-2 complex subunit mu-1		1.00						0.233455	NA	NA	NA	NA	0.23	NA					-0.65515	NA	NA	NA	NA					-0.66	NA
B7Z238	cDNA FLJ55839, highly similar to Bcl-2 like 13 protein		4.00						-0.06771	NA	NA	NA	NA	-0.07	NA					0.208084	NA	NA	NA	NA					0.21	NA
B7Z2V8	cDNA FLJ54958, highly similar to Rap1 GTPase-GDP dissociation stimulator 1		2.00						-3.42259	NA	NA	NA	NA	-3.42	NA					-1.62545	NA	NA	NA	NA					-1.63	NA
B7Z9F3	cDNA, FLJ78817, highly similar to Metaxin-2		1.00						1.323624	NA	NA	NA	NA	1.32	NA					0.751557	NA	NA	NA	NA					0.75	NA
D6REX3	Protein transport protein Sec31A	SEC31A	2.00						0.891127	NA	NA	NA	NA	0.89	NA					0.627194	NA	NA	NA	NA					0.63	NA
ESRGS4	Prefoldin subunit 1	PFDM1	1.00						0.416874	NA	NA	NA	NA	0.42	NA					0.064991	NA	NA	NA	NA					0.06	NA
EPRN2	Terminal uridylyltransferase 4 (Fragment)	ZCC1C11	1.00						1.852435	NA	NA	NA	NA	1.85	NA					3.053175	NA	NA	NA	NA					3.05	NA
EPR9R7	UBX domain-containing protein 1	UBXN1	2.00						1.054705	NA	NA	NA	NA	1.05	NA					1.058838	NA	NA	NA	NA					1.06	NA
F4ZM63	NF45		2.00						0.644558	NA	NA	NA	NA	0.64	NA					0.732999	NA	NA	NA	NA					0.73	NA
F8W1D1	Melanocyte protein PMEL (Fragment)	PMEL	2.00						0.979791	NA	NA	NA	NA	0.98	NA					0.579851	NA	NA	NA	NA					0.58	NA
G3VIC3	Apoptosis inhibitor 5	API5	2.00						0.810985	NA	NA	NA	NA	0.81	NA					0.627609	NA	NA	NA	NA					0.63	NA
H0YC42	Uncharacterized protein	NA	3.00						2.135698	NA	NA	NA	NA	2.14	NA					1.715243	NA	NA	NA	NA					1.72	NA
H7BY53	EF-hand calcium-binding domain-containing protein 2 (Fragment)	EFCAB2	1.00						2.144899	NA	NA	NA	NA	2.14	NA					2.500503	NA	NA	NA	NA					2.50	NA
I1SRC5	UBE2L3/KRAS fusion protein	NA	3.00						-0.223	NA	NA	NA	NA	-0.22	NA					-1.09342	NA	NA	NA	NA					-1.09	NA
I3LDM9	Transcription elongation factor B polypeptide 2 (Fragment)	TCEB2	1.00						-0.47369	NA	NA	NA	NA	-0.47	NA					-0.80645	NA	NA	NA	NA					-0.81	NA
I3L170	Microtubule-associated protein	MAPT	1.00						0.845688	NA	NA	NA	NA	0.85	NA					1.325328	NA	NA	NA	NA					1.33	NA
J3KN16	Proteasome-associated protein ECM29 homolog	KIAA0368	1.00						-0.15817	NA	NA	NA	NA	-0.16	NA					-0.03675	NA	NA	NA	NA					-0.04	NA
J3ORC4	60S ribosomal protein L26 (Fragment)	RPL26	1.00						0.814767	NA	NA	NA	NA	0.81	NA					0.828803	NA	NA	NA	NA					0.83	NA
K7N7A8	Uncharacterized protein (Fragment)	NA	2.00						0.548128	NA	NA	NA	NA	0.55	NA					0.538587	NA	NA	NA	NA					0.54	NA
O15451	Proline and glutamic acid rich nuclear protein isoform (Fragment)	NA	1.00						6.021562	NA	NA	NA	NA	6.02	NA					6.149519	NA	NA	NA	NA					6.15	NA
Q4W5K9	Putative uncharacterized protein LIM (Fragment)	LIM	2.00						0.287141	NA	NA	NA	NA	0.29	NA					0.868511	NA	NA	NA	NA					0.87	NA
Q53F45	Splicing factor, arginine/serine-rich 4 variant (Fragment)		2.00						0.106492	NA	NA	NA	NA	0.11	NA					-0.17905	NA	NA	NA	NA					-0.18	NA
Q53F8	Aldehyde dehydrogenase 6A1 variant (Fragment)		2.00						-0.11636	NA	NA	NA	NA	-0.12	NA					-0.04822	NA	NA	NA	NA					-0.05	NA
Q53G70	NADH dehydrogenase (Ubiquinone) flavoprotein 1, 51kDa variant (Fragment)		2.00						-1.23759	NA	NA	NA	NA	-1.24	NA					-1.63806	NA	NA	NA	NA					-1.64	NA
Q53H88	Dynaclin 2 variant (Fragment)		3.00						-0.07483	NA	NA	NA	NA	-0.07	NA					-0.99817	NA	NA	NA	NA					-0.99	NA
Q53H7	Dehydrogenase/reductase (SDR family) member 3 variant (Fragment)		1.00						2.105671	NA	NA	NA	NA	2.11	NA					1.631139	NA	NA	NA	NA					1.63	NA
Q53HV2	Chaperonin containing TCP1, subunit 7 (Eta) variant (Fragment)		8.00						-0.30723	NA	NA	NA	NA	-0.31	NA					-0.31148	NA	NA	NA	NA					-0.31	NA
O58F09	Glucosidase I	GCS1	1.00						0.066427	NA	NA	NA	NA	0.07	NA					-0.44821	NA	NA	NA	NA					-0.45	NA
O59EA2	Coronin (Fragment)		2.00						-0.72636	NA	NA	NA	NA	-0.73	NA					-0.27812	NA	NA	NA	NA					-0.28	NA
O59F19	Ribosomal protein L12 variant (Fragment)		2.00						0.65754	NA	NA	NA	NA	0.66	NA					0.185294	NA	NA	NA	NA					0.19	NA
O59G26	Guanine nucleotide-binding protein, beta-3 subunit variant (Fragment)		2.00						-0.08319	NA	NA	NA	NA	-0.08	NA					0.091556	NA	NA	NA	NA					0.09	NA
OSHY8	Serine hydroxymethyltransferase	DKFZp686P09201	1.00						-0.91813	NA	NA	NA	NA	-0.92	NA					-1.37225	NA	NA	NA	NA	</					

Supplemental Table S2. Differentially expressed proteins (>2-fold difference in expression) for both hESC-RPE lines compared to hRPE presented on log2 scale.
Mean number of peptides used for quantification, fold change value for each replicate analysis, mean fold change, and standard deviation shown for each protein.
Upregulated proteins marked with red color and downregulated with green color.

UniProt	Protein name	Gene name	Peptide mean	OB/017 hESC-RPE to hRPE						Fold change (mean)	SDev	UniProt	Protein name	Gene name	Peptide mean	OB/023 hESC-RPE to hRPE						Fold change (mean)	SDev
				1.1	1.2	2.1	2.2	3.1	3.2							1.1	1.2	2.1	2.2	3.1	3.2		
				Analysis																			
V9HW6	Epididymis secretory protein LI 51	HEL-S-51	9.50	3.476174	3.737929	3.4517	2.645289	2.235296	1.993698	2.92	0.73	V9HW6	Epididymis secretory protein LI 51	HEL-S-51	9.50	3.209785	3.454716	2.903293	3.241777	2.180797	2.325072	2.74	0.53
Q5VY30	Retinol binding protein 4, plasma, isoform CRA_b	RBPA	2.50	2.538352	2.639081	2.639081	2.836986	2.633531	2.41	0.39	Q5VY30	Retinol binding protein 4, plasma, isoform CRA_b	RBPA	2.50	2.48967	2.525356	2.9325	2.122641	2.326719	2.47	0.58		
A7D52	Glutathione S-transferase pi (Fragment)	GSTP1	19.67	1.409268	1.127546	1.993092	1.195694	3.276798	2.89305	1.98	0.91	P35555	Fibrillin-1	FBN1	25.83	2.635805	2.299556	2.497973	2.681427	1.935242	2.457065	2.40	0.29
C8R512	Caldesmon, highly similar to Homo sapiens aldehyde dehydrogenase 1 family class B member 2	GSTT1	5.23	1.379541	3.081129	1.308082	1.328234	1.975252	1.934894	1.82	0.48	CA2601	Caldesmon	CD248	3.00	2.00471	2.116333	2.251019	2.436027	1.435651	2.23	0.53	
AD002488T0	Integrin beta 8	ITGB8	1.00	1.472631	1.594711	1.306225	2.570083	1.935328	1.80	0.47	AD002483E3	Apolipoprotein A-I, isoform CRA_a	APOA1	2.33	2.171774	2.193545	2.158178	1.972059	2.333172	1.711849	1.83	0.48	
I4A87	Macrophage migration inhibitory factor (Fragment)	MIF	7.17	1.511884	1.464049	1.816903	1.642547	1.995871	2.328021	1.79	0.33	G76A1A	CS1B protein	CS1B	3.67	1.634077	1.810028	1.595385	1.952152	1.727776	1.733579	1.74	0.13
S4R371	Fatty acid-binding protein, heart (Fragment)	FABP3	2.25	2.023669	1.339137	1.878319			1.511072	1.73	0.39	Q01650	Large neutral amino acids transporter small subunit 1	SLC7A5	1.25	1.259375		1.010685	1.038763	1.584927	1.72	0.91	
P16401	Histone H1.5	HIST1H1B	5.40	1.29687	1.619964	1.947181	1.535453	2.209149	1.72	0.36	B2R2512	cDNA, FLJ39268, highly similar to Homo sapiens aldehyde dehydrogenase 1 family, member A3 (ANA)	ANA	3.33	1.301627	2.395054	1.348755	1.562839	1.58923	2.115222	1.72	0.44	
Q76A1	CS1B protein	CS1B	3.67	1.611166	1.727405	1.371868	1.357116	2.228004	2.028756	1.72	0.35	W8ECY1	Lactoferrin	LF	5.00	1.926334	1.017848			2.163906	1.70	0.60	
Q1650	Large neutral amino acids transporter small subunit 1	SLC7A5	1.25	0.873917	0.873917	0.862326	2.352014	1.832675	1.71	1.13	AP0C3	Apolipoprotein C-III	APOC3	1.17	1.759619	1.640518	1.341283	1.338937	1.672284	2.405546	1.69	0.39	
AOA02483E3	Apolipoprotein A-I, isoform CRA_a	APOA1	2.33	2.634717	2.317136	1.974767	2.021072	0.964121	0.421314	1.69	0.84	D3B4A7	cDNA, FLJ35635, fs, clone SPLEN210185, highly similar to BONE/CARTILAGE PROTEOGLYCAN I	NCP2	1.00	1.00	1.00	2.094576	1.975248	0.990457		1.69	0.61
W8EY1	Lactoferrin	LF	5.00	1.911673	1.380773				1.764742	1.68	0.27	AAA087X02	Complex factor C-III	CFI	1.00	1.834888	1.188535	1.596808	1.442842	2.369161		1.69	0.45
B0IWI2	Apolipoprotein C-III	APOC3	1.17	1.848467	1.641181	1.415766	1.543017	1.125438	2.132865	1.62	0.35	DSKU2E	Collectin-2	COLEC2	2.67	2.15145	1.633213	1.202811	2.124668	1.788893	1.007687	1.65	0.47
D8W9P	Beta-2-glycoprotein I (Fragment)	NA	1.20	1.300894	1.435892	1.161807	1.952719	2.087996	1.59	0.41	Q104745	Na(+)/H(+)-exchange regulatory cofactor NHE-RF1	SLC9A3R1	8.67	1.407596	1.91543	1.841261	1.905157	1.435722	1.267986	1.63	0.29	
AA087X02	Complex factor C-III	CFI	1.00	1.771221	1.565084	1.074888	1.405785	2.067188	1.50	0.37	NCCRP1	F-box only protein 50	NCCRP1	2.33	2.369177	1.450086	1.052187	1.605343	0.454857	2.690151	1.60	0.83	
Q14682	Structural maintenance of chromosomes protein 1A	SMC1A	1.00	1.590398			1.530956		1.00	1.56	0.85	O29510	Similar to ribosomal protein S8 (Fragment)	NA	1.50	1.83012	2.733932			0.465579	1.60	1.60	
Q4ZK7	F-box only protein 50	NCCRP1	2.33	1.517464	1.042644	1.845056	1.644994	3.078895	2.912346	1.56	0.85	POS787	Keratin, type II cytoskeletal 8	KRT8	17.50	1.86948	1.38205	1.650753		0.992759	1.810548	1.60	0.35
P35555	Fibrillin-1	FBN1	25.83	1.607747	0.988756	1.317947	1.315035	1.849868	2.2249	1.55	0.44	B2RA03	cDNA, FLJ94640, highly similar to Homo sapiens keratin 18 (KRT18), mRNA	DNA	9.50			2.047228		1.128552	1.59	0.65	
Q86222	Epididymis secretory protein LI 297	ADP2	2.67	1.379692	0.580399	2.143443	1.704767	1.675466	1.721421	1.53	0.53	AD002488T0	Integrin beta 8	ITGB8	2.50	1.325605	1.081709	0.957238	2.058359	2.515707	1.59	0.67	
Q5J5D8	Aquaporin 1 splice variant 2 (Fragment)	AQP1	1.00	0.841618	2.084512	2.275493	2.145216	0.309504	1.53	0.90	Q5NKV8	Intercellular adhesion molecule 1	ICAM1	2.83	1.687572	2.235223	1.899633	1.475243	0.777006	1.448814	1.59	0.49	
B4D1W1	cDNA FLJ52285, highly similar to Vesicular integral-membrane protein VIP36	VIP36	2.00	0.924949	0.722477	2.921807			1.52	1.21	ETC9A4	Ezrin	EPZ	23.17	1.508392	1.961914	1.385111	1.497159	1.800684	1.332742	1.58	0.25	
PD5787	Keratin, type II cytoskeletal 8	KRT8	17.50	1.785737	1.388242	1.527923	1.812191	0.52638	1.506304	1.51	0.28	PS8107	Epiplakin	EPPLK1	2.50	1.20085	1.211743			2.193635	0.918977	1.56	0.91
Q10475	Na(+)/H(+)-exchange regulatory cofactor NHE-RF1	SLC9A3R1	8.67	1.385279	1.86852	1.280794	1.40678	1.46048	1.42337	1.47	0.20	I4A87	Macrophage migration inhibitory factor (Fragment)	MIF	7.17	1.49306	1.668784	1.451427	1.373144	1.39628	1.740643	1.51	0.14
B2RA03	cDNA, FLJ94640, highly similar to Homo sapiens keratin 18 (KRT18), mRNA	DNA	9.50	1.59447					1.263141	1.43	0.23	K7EKL3	Granulin (Fragment)	GN	2.00	1.734948	1.469632	1.42867	1.68763	1.379727	1.314178	1.50	0.17
Q9R684	FBL protein (Fragment)	FBL	1.00	1.378784					1.471612	1.43	0.07	P30711	Glutathione S-transferase theta-1	GSTT1	1.00			0.97925	1.958003		1.47	0.69	
Q59X2	Solute carrier family 2 (facilitated glucose transporter), member 1 variant (Fragment)	SCL25A5	8.50	1.130076	1.169165	2.096679	1.639758	1.040796	1.470338	1.42	0.40	B4D0L4	cDNA FLJ5396, moderately similar to Homo sapiens cytidylate kinase (CMPK), mRNA	NA	1.67			1.154178		1.484754	1.46	0.29	
P17643	3-hydroxyindole-2-carboxylic acid oxidase	TYRBP1	1.00	1.930487	1.889383	1.032641			1.553711	1.62	0.44	P193487	Guanine nucleotide-binding protein subunit gamma (Fragment)	GABG1	1.00	2.054135					1.762914	1.33	0.68
ET9E04	Ezrin	EPZ	23.17	1.584306	1.904808	1.192397	1.184951	1.559935	1.02925	1.41	0.33	AAA02483E3	Serpin peptidase inhibitor, clade H (heat shock protein 47), member 1, (Collagen binding protein)	SERPINH1	9.17	1.638447	1.764575	1.356564	1.379589	1.164101	1.465036	1.43	0.25
AK85W7	cDNA FLJ75180, highly similar to Homo sapiens mitochondrial isoleucine tRNA synthase	DNA	2.00	2.270017			0.53294		1.40	1.23	ESRHW4	Erlin-2 (Fragment)	ERL2	5.33	1.503531	1.291599	0.742169	1.170511	1.770041	2.079951	1.43	0.47	
Q8N142	Adenylosuccinate synthetase isozyme 1	ADSS1	5.00	1.800788		1.573164	2.225313	0.245973	1.138237	1.40	0.75	P08127	Keratin, type I cytoskeletal 19	KRT19	7.67			1.754672	1.446921	1.08121	1.43	0.34	
Q02318	Rera 2-hydroxylase, mitochondrial	CYP27A1	1.00			0.934339	1.05775	1.142116	1.38	0.66	D60664	Perilipin-3	PLIN3	2.00	1.499119	1.443558			1.600037	1.159648	1.43	0.19	
W6A4U0	Tetraspanin (Fragment)	CD63	1.00	1.745426	1.400538	1.111414	1.677252	0.98553	1.252385	1.37	0.39	AAA087WV8	Fibrillin-2	FBN2	2.33	1.361267	1.234035	2.219534	0.574229	1.367344	1.39	0.82	
ESRHW4	Erlin-2 (Fragment)	VIP4H1	1.00	1.745426	1.400538	1.111414	1.677252	0.98553	1.252385	1.37	0.39	PS5225	Rac1n 3 variant (Fragment)	NA	6.17	1.510547				1.479847	1.442361	1.24	0.61
E9PE85	Far upstream element-binding protein 1	FUBP1	3.00	1.535059	0.976653	1.503732	1.750222		1.036149	1.36	0.34	CD13C3	Tropomyosin beta chain	TPM2	6.75	1.605417				1.209166	1.187827	1.37	0.20
Q5KU26	Collectin-2	COLEC2	2.67	1.855229	1.554266	0.775154	1.569551	1.270517	0.994904	1.34	0.40	B4E106	cDNA FLJ53399, highly similar to Monocarboxylate transporter 1	NA	2.47	0.982141	1.154491	1.976721				1.37	0.53
Q53GD1	Guanine nucleotide-binding protein subunit gamma (Fragment)	GN	1.00	1.013519	1.321027	0.903948	2.089793		1.33	0.54	AAA02483E3	3-hydroxybutyrate dehydrogenase, type 2, isoform CRA_b	BHD2	3.40	1.5323	1.362901	1.290254		1.524003	1.13344	1.37	0.17	
Q53C10	Plastin 3 variant (Fragment)	NA	4.00		1.724823	0.933138			1.33	0.56	P49006	MARCKS-related protein	MARCKS1	1.00	1.005996	1.169852			1.453849	1.322763	1.37	0.30	
Q8W7V5	THOP1 protein (Fragment)	THOP1	1.50	2.1276			0.50107		1.31	1.15	O25320	Guanine nucleotide-binding protein subunit gamma (Fragment)	GN	1.00	1.245434		1.838433	0.859642	1.478496		1.36	0.41	
AD002483D9	3-hydroxybutyrate dehydrogenase, type 2, isoform CRA_b	BHD2	3.40	1.5362545	1.370972	1.134537		1.444329	0.962634	1.33	0.24	CH22H8	Cherry tricarboxylate carrier protein 6	ALIC6	5.67	0.96944	0.98003	1.759946	1.744541	1.898277	0.686664	1.34	0.52
Q55882	Caldesmon	CALD1	3.00	1.915068	1.028865	0.915036	1.723032	0.822859	1.28	0.50	DM2M25	Putative uncharacterized protein DKFZp68M09245	DKFZP68M09245	2.00	1.423302				1.294945	1.34	1.12		
PS8107	Epiplakin	EPPLK1	3.50			1.666462			0.882184	1.27	0.55	OV0DC6	Peptidyl-prolyl-cis-trans isomerase	PPP1R1	2.50	1.802176				0.866633	1.33	0.66	
Q9YU12	UDP-glucose 4-epimerase	UGTGT1	4.00		0.796139	1.177163			0.420	1.26	0.65	B4DWV1	cDNA FLJ52285, highly similar to Vesicular integral-membrane protein VIP36	NA	2.00	0.257936	0.023967	2.151521				1.33	1.26
P53621	Coatomer subunit alpha	COPA	2.25	1.040852	1.079357	1.419834		0.864051	1.25	0.36	D6F1												

UniProt	Protein name	Gene name	Peptide mean	08/017 hESC-RPE to hRPE					Fold change (mean)	SDev	UniProt	Protein name	Gene name	Peptide mean	08/023 hESC-RPE to hRPE					Fold change (mean)	SDev						
				Analysis											Analysis												
				1.1	1.2	2.1	2.2	3.1							3.2	1.1	1.2	2.1	2.2			3.1	3.2				
Q51697	Guanine nucleotide binding protein (G protein), alpha transducing activity polypGNAT2	GNAT2	12.00		-1.53809	-0.68951				-1.11	0.60	DCXR	3.50	-0.88021	-1.07624	-1.67853	-0.57791			-1.05	0.46						
O15257	Serin/threonine-protein phosphatase 2A activator	PPP2R4	2.00		-1.6915	-0.8196	-0.87543			-1.13	0.49	NDUFAB8	4.50	-0.86059	-0.83466	-1.31713	-1.20666			-1.05	0.24						
H0Y886	NADH dehydrogenase [ubiquinone] beta subcomplex subunit 5, mitochondrialNDUF85	NDUF85	1.00		0.053477	-1.70975	-1.73762			-1.13	1.03	APOD1	1.75	-1.99301	-0.503291	-1.11232	-1.6332			-1.06	1.10						
Q04248B75	Citrate synthase	CS	14.00		-0.54852	-0.86872	-1.73599	-1.76872	-0.64944	-1.21839	-1.13	0.53	DPFSL3	21.00	-1.15874	-0.63427	-1.04081	-0.91917	-1.1075	-1.43201	-1.06	0.26					
P68366	Tubulin alpha-4A chain	TUBB4A	38.00		-1.32715	-1	-0.75421	-0.2128	-1.78633	-1.73904	-1.14	0.61	DBTBA5	NA	0.700	-0.5142	-0.70472	-1.4876	-1.89984	-0.94105	-0.8798	-1.07	0.52				
H0Y695	Aminomethyltransferase (Fragment)	AMT	13.00		-0.91348		-0.90686	-1.5994			-1.14	0.40	D59FD4	NA	24.17	-1.07465	-1.35052	-1.25783	-1.27953	-0.76417	-1.01994	-1.07	0.19				
AA0242R4F1	Enolase 1 (Alpha), isoform CRA_a	ENO1	61.00		-1.37281	-1.39643	-0.95869	-0.72536	-1.37033	-1.23426	-1.14	0.32	GNMG7	1.00	0.251337	-1.01084	-1.96327	-1.48629			-1.19612	-1.07	0.82				
Q08722	Leukocyte surface antigen CD47	CD47	23.00		-1.16168	-1.18702	-1.03081	-1.11534	-1.15083	-1.21412	-1.14	0.06	NA	5.80	-0.45053	-0.335133	-1.63151	-0.84294	-0.92466	-0.74464	-1.07	1.17					
B72842	cDNA FLJ51671, highly similar to Prenylcysteine oxidase (EC 1.8.3.5)	NA	1.50			-1.27661	-1.01572				-1.15	0.18	D6L1E3	NA	3.00	-0.8373	-0.99882	-0.53999	-1.13087	-1.75437	-0.89524	-1.08	0.44				
Q53117	Citrate synthase	CS	2.00			-1.11729		-1.5407	-0.59555	-1.3231	-1.14	0.50	B717A4	NA	3.00	-1.14667	-1.14105	-1.14105	-1.14105			-1.05	0.44				
Q71136	Tubulin alpha-1A chain	TUBA1A	44.00					-1.5407	-0.95114	-1.43663	-1.06	0.24	B4E192	NA	15.00	-1.16757	-0.99868	-1.1189				-1.09	0.09				
Q53Y67	Amine oxidase [flavin-containing]	MAOA	3.20		-1.40165	-1.11947	-1.15516	-1.17243			-1.17	0.15	P56134	NA	3.00	-0.7835	-0.353	-1.36782	-1.87279			-1.09	0.67				
Q5JM72	Guanine nucleotide-binding protein (G α) subunit alpha isoforms Xlas	GNAS	4.00		-2.04093	-1.01719	-1.34342		-0.69479	-0.77245	-1.17	0.55	AA0242R9B7	Cytochrome c oxidase subunit VIc, isoform CRA_a	2.50	-0.91285	-1.10661	-1.0455	-1.66646	-0.69961	-1.17325	-1.10	0.32				
AA0242R8B18	Retinol dehydrogenase 5 (11-cis and 9-cis), isoform CRA_a	RDH5	10.67		-1.29058	-1.17797	-1.12017	-1.16887	-1.12927	-1.23327	-1.19	0.06	D9H3N1	Retinol dehydrogenase membrane protein 1	1.50			-0.33955	-1.90335			-1.12	1.11				
Q8NF67	cDNA FLJ40278 fs, clone NT28P1000325, highly similar to Phosphate carrier protein	PDE6A	7.40		-1.15246	-1.27156	-2.08151		-0.90513	-0.68328	-1.22	0.53	RFHF18	RNP24	2.30			0.410016		-2.77714	-1.0244	-1.13	1.60				
P16499	Rod cGMP-specific 3',5'-cyclic phosphodiesterase subunit alpha	PDE6A	16.67		-1.19825	-1.05101	-1.74993	-1.49946	-0.80233	-1.02078	-1.22	0.35	Q9H9K6	Mitochondrial glutamate carrier 1	3.00			-1.69078		-1.64053		-1.15	0.54				
Q75475	PC4 and SFRS1-interacting protein	PSPI1	2.80		-1.58496	-1.40696	-1.37401	-1.01817			-1.22	0.34	D8MWV5	ATP synthase subunit 1, mitochondrial	1.50												
P51991	Heterogeneous nuclear ribonucleoprotein A3	HNRNP3A3	5.25		-0.96942	-1.24703			-0.78008	-1.90749	-1.23	0.49	P75475	Cytochrome c oxidase subunit VIc, isoform CRA_a	2.80			-2.06912	-1.28216	-0.7406	-0.94285	-0.81207	-1.17	0.51			
Q53Y62	Syntaxin 3A	STX3A	3.25		-0.73513		-2.27019		-0.82617	-0.68011	-1.24	0.99	AA0242R875	Citrate synthase	CS	7.00			-0.57003	-0.91011	-1.75334	-1.37873	-0.886	-1.21141	-1.18	0.49	
P35613	Basigin	BSG	8.67		-2.19735		-0.83417	-0.69432			-1.24	0.83	AA0242R9X3	Cytosolic nucleotide gated channel alpha 1, isoform CRA_a	14.00												
P07305	Histone H1 0	H1FO	2.17		-0.22482	-2.14108	-0.44693	-0.69816	-1.0726	-1.12142	-1.65	0.69	D48E82	Cytochrome c oxidase subunit 7A2, mitochondrial	2.60												
V9RH31	ATP synthase subunit beta	ATP5B	65.17		-0.92464	-0.92314	-1.75191	-1.9382	-1.07407	-0.95739	-1.26	0.45	D25E69	Elongation factor 1-alpha 2	10.00												
AA0242DGE4	Syntaxin-3 (Fragment)	STX3	5.00					-1.626			-1.26	0.52	P16403	Histone H1.2	14.67												
O14561	Acyl carrier protein, mitochondrial	NDUFAB1	3.00		-0.76292	-1.04238	-1.43505	-1.79593			-1.26	0.45	AA0242R818	Retinol dehydrogenase 5 (11-cis and 9-cis), isoform CRA_a	10.67			-1.30267	-1.04681	-1.53375	-1.03603	-0.97601	-1.2732	-1.19	0.21		
AA0242R7WZ17	Mristoylated-linoleic-Rh-Kinase substrate	MARCKS	2.50		-0.91719	-1.39393	-0.81213	-1.19277	-2.37903	-0.90167	-1.27	0.59	D3ZCW2	Galactinol-related protein	1.00												
V9WH12	Epididymis secretory sperm binding protein L2a	PROX2	18.50		-1.33359	-1.41605	-1.45672	-1.15119	-1.26143	-1.10006	-1.29	0.14	V9WH31	ATP synthase subunit beta	65.17			-0.94244	-0.83034	-1.933	-2.05898	-0.71922	-0.6795	-1.20	0.63		
ADND46	Epitaxial transporter	NA	5.13			-1.84876	-1.78209	-0.59183			-1.29	0.64	ADP47	ADP/ATP translocase 1	21.00			-0.35221	-0.62269	-2.31017	-1.79629	-1.64128	-1.84128	-1.20	0.79		
Q9UNL6	Hemoglobin gamma-2 (Fragment)	HBG2	11.50					-0.97408			-1.26	0.46	H1FO	Histone H1.0	11.57			-1.58847	-1.29022	-0.69564	-0.69477	-1.5761	-1.44209	-1.21	0.42		
P21912	Succinate dehydrogenase [ubiquinone] iron-sulfur subunit, mitochondrial	SDHB	1.60		-0.8077	-1.24073	-1.43076	-2.39007		-0.64853	-1.30	0.68	P17568	NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit 7	1.00			-1.1854	-0.52022	-1.49405	-0.34662	-2.55529	-1.22	0.88			
Q4LE73	HPRT1 protein (Fragment)	HPRT1	3.00		-1.16786	-1.36187	-1.10812	-0.86427	-1.90696	-1.42905	-1.31	0.36	XSDQV1	Collapsin response mediator protein 1, isoform B (Fragment)	10.67			-1.59067		-0.80192				-1.2701	-1.22	0.40	
Q53E50	Sodium/potassium-translocating ATPase subunit alpha (Fragment)	NA	40.67		-1.03608	-1.23001	-1.34544	-1.44931	-1.31537	-1.49243	-1.31	0.17	P16499	Rod cGMP-specific 3',5'-cyclic phosphodiesterase subunit alpha	16.67			-1.40282	-1.90307	-1.57236	-1.65291	-0.45239	-1.37941	-1.23	0.46		
JRKS22	Lyxoylase reductase (Fragment)	DCXR	3.50		-1.83729	-1.64099	-1.46474	-0.36643			-1.33	0.66	D35E30	Sodium/potassium-translocating ATPase subunit alpha (Fragment)	16.67			-1.01719	-1.06283	-1.25662	-1.16291	-0.25269	-1.4485	-1.24	0.18		
Q4VZ99	ATP synthase protein	NA	23.00		-1.22423	-1.19873	-1.13348	-1.21643	-1.21415	-1.14	0.50	AA0242DGE4	Epitaxial transporter	5.13					-0.80202		-1.68419						
Q8I29	Tubulin, beta 2C	TUBB2C	54.83		-1.6651	-1.64149	-0.73776	-0.85478	-1.41213	-1.67265	-1.33	0.43	Q9UNL6	Hemoglobin gamma-G (Fragment)	11.50												
AA0242R461	Heterogeneous nuclear ribonucleoprotein A2/B1, isoform CRA_c	HNRPA2B1	13.25		-1.60458	-1.82906			-0.84714	-1.04741	-1.33	0.46	AA0242R875	Enolase 1 (Alpha), isoform CRA_a	61.00			-1.14704	-0.97358	-1.0099	-0.99737	-1.23231	-1.65954	-1.25	0.35		
AA0242Q2T0	Voltage-dependent anion channel 2, isoform CRA_c	VDAC2	16.17		-0.97212	-1.2679	-2.18618	-2.04403	-0.75414	-0.76907	-1.33	0.64	B72BA2	cDNA FLJ51671, highly similar to Prenylcysteine oxidase (EC 1.8.3.5)	1.50					-1.40224	-1.1156						
O17860	Interphotoreceptor matrix proteoglycan 1	IMP1G	4.80		-0.69379	-0.74267	-2.21543	-1.85193	-1.19271		-1.34	0.68	D9Y3D6	Mitochondrial fission 1 protein	2.00			-0.09960	-0.42443	-1.48457				-1.27	1.28		
Q5M84	Dihydropyrimidinase-like 2 variant (Fragment)	NA	19.83		-1.59266	-1.45594	-0.7722	-1.66226	-1.30083	-1.27781	-1.34	0.32	D3Q395	Rod outer segment membrane protein 2	16.67			-0.5603	-0.85403	-1.99999	-2.04423	-1.56749	-0.69758	-1.28	0.64		
A3K308	Staphylococcal Oxid variant	HOG1	6.46		-0.57027	-1.52929			-1.18616	-1.21449	-1.38	0.66	D3Q395	Staphylococcal Oxid variant	16.67			-0.92774	-0.73776	-1.1826	-1.11715	-1.50924	-1.32689	-1.29	0.48		
Q5CMH4	NDUF81 protein (Fragment)	NDUF81	1.00			-0.94927	-1.80286				-1.38	0.60	D59G84	Dihydropyrimidinase-like 2 variant (Fragment)	19.83			-1.86138	-1.82906	-0.79928	-1.4049	-0.87547	-0.99072	-1.29	0.48		
Q5XKP0	MIC	MIC13	1.00		-1.29347	-1.20179	-1.3307	-2.05057	-1.06908		-1.40	0.58	Q4VZ99	Anion exchange protein	NA	6.50			-1.12537	-1.14572	-1.47208	-1.84623	-1.10795	-1.06447	-1.29	0.31	
Q68CM6	STXB1 protein	STXB1	14.83		-1.0737	-1.78653	-1.25031	-1.21219	-1.62587	-1.44474	-1.40	0.27	P05109	Protein S100-A8	1.33			-0.49832	-1.04159	-1.4136	-1.15237	-2.75298	-2.29615	-1.33	1.08		
Q9H3N1	Thioredoxin-related transmembrane protein 1	TMX1	1.50			-0.9129	-1.80934				-1.40	0.58	H0Y466	Dehydrogenase/reductase SDR family member 7 (Fragment)	10.67					-1.12203	-1.2706	-2.22396			-0.72563	-1.34	0.64
O14894	Ketamine reductase mu-crystallin	KRM	11.67		-0.86463	-1.37756	-1.54911	-1.54607	-1.75474	-1.36213	-1.41	0.30	P17804	RPE-retinal G protein-coupled receptor	6.83			-1.55482	-1.41394	-1.64174	-2.03396	-0.50907	-0.81132	-1.24	0.54		
B2KX96	NADH dehydrogenase fs, clone OC8BF2004038, highly similar to Dihydropyrimidinase	NA	9.23					-1.33118	-1.71805		-1.45	0.63	P17860	Interphotoreceptor matrix proteoglycan 1	4.80			-0.92774	-0.73776	-1.1826	-1.11715	-1.50924	-1.32689	-1.29	0.48		
Q53X05	Cold inducible RNA binding protein	CIRBP	3.00		-1.31192	-1.28307			-1.32655	-1.8781	-1.45	0.29	D8NF27	cDNA FLJ92078 fs, clone NT28P1000325, highly similar to Phosphate carrier protein, mitochondrial	7.40			-1.23973	-1.22386	-2.06549			-1.15138	-1.14031	-1.36	0.39	
Q59E68	Proteasome 26S non-ATPase subunit 2 variant (Fragment)	NA	3.50			-0.82845			-2.67948		-1.45	1.73	AA0242Q2T0	Voltage-dependent anion channel 2, isoform CRA_c	16.17			-0.96836	-1.07068	-1.25733	-2.04641	-1.02945	-1.00182	-1.38	0.56		
P47804	RPE-retinal G protein-coupled receptor	PEAR	6.83		-1.64711	-1.27523	-1.78265	-2.11992	-0.76124	-1.16513	-1.46	1.09	B3KVE9	cDNA FLJ16285 fs, clone OC8BF2004038, highly similar to Dihydropyrimidinase-related protein 1	NA	9.33					-1.67591		-1.19333	-1.2876		-1.39	0.26
BIAX24	Phospholipid enriched in astrocytes 15, isoform CRA_a	PL15	5.17		0.49599	-1.89905	-1.6478	-1.72275	-2.40767	-1.61308	-1.47	0.10	Q53X05	Cold inducible RNA binding protein	3.00			-0.97007	-1.29453			-1.19333	-1.64492	-1.63473	-1.39	0.32	
Q2Z702	Cytochrome c oxidase subunit 7A2, mitochondrial	COX7A2	2.60		-0.56998	-1.89952	-1.7478		-																		

Supplementary Table S3. The GO terms used for classification of the proteins.

The last column specifies the GO domain of the GO term:

cellular component (CC), biological process (BP), molecular function (MF).

GO term identifier	GO term name	GO domain
GO:0009583	detection of light stimulus	BP
GO:0050953	sensory perception of light stimulus	BP
GO:0043473	pigmentation	BP
GO:0006582	melanin metabolic process	BP
GO:0042470	melanosome	CC
GO:0031012	extracellular matrix	CC
GO:0007155	cell adhesion	BP
GO:0005201	extracellular matrix structural constituent	MF
GO:1990430	extracellular matrix protein binding	MF
GO:0006909	phagocytosis	BP
GO:0006508	proteolysis	BP
GO:0006914	autophagy	BP
GO:0006897	endocytosis	BP
GO:0000502	proteasome	CC
GO:0034702	ion channel complex	CC
GO:1990351	transporter complex	CC
GO:0005215	transporter activity	MF
GO:0005216	ion channel activity	MF
GO:0005739	mitochondrion	CC
GO:0006950	response to stress	BP
GO:0006979	response to oxidative stress	BP
GO:0002376	immune system process	BP
GO:0006955	immune response	BP
GO:0005856	cytoskeleton	CC
GO:0005198	structural molecule activity	MF
GO:0007010	cytoskeleton organization	BP

Supplementary Table S4. The 190 mitochondrial proteins presented in Figure 4a. Differences in expression for both hESC-RPE lines compared to hRPE presented on log2 scale.

Mean number of peptides used for quantification, fold change value for each replicate analysis, technical replicate CV, biological replicate CV, mean fold change, and standard deviation shown for each protein. Note! CV values are calculated using normal scale, not the log2 scale shown here. Differentially expressed proteins (>2-fold difference in expression i.e. values >1 and <-1 on log2 scale) marked with red color for upregulation and green color for downregulation.

UniProt	Protein name	Gene name	Peptide mean	08/017 hESC-RPE to hRPE												08/023 hESC-RPE to hRPE											
				Analysis						Technical replicate CV			Biological CV	Fold change (mean)	StDev	Analysis						Technical replicate CV			Biological CV	Fold change (mean)	StDev
				1.1	1.2	2.1	2.2	3.1	3.2	1	2	3				1.1	1.2	2.1	2.2	3.1	3.2	1	2	3			
P61604	10 kDa heat shock protein, mitochondrial	HSPE1	7.33	0.52446	0.484206	NA	NA	0.901593	NA	1.97	NA	NA	19.34	0.64	0.23	0.917834	0.766584	NA	NA	0.606649	NA	7.41	NA	NA	11.62	0.76	0.16
P61981	14-3-3 protein gamma	YWHAH	8.67	-0.27002	-0.57918	0.147277	-0.10255	-1.99226	-2.10735	15.10	12.21	5.44	58.92	-0.82	0.98	-0.01542	-0.1718	0.166406	0.04407	-0.27404	-0.74559	7.66	10.30	22.91	18.99	-0.18	0.31
P23748	14-3-3 protein theta	YWHAQ	8.80	NA	0.593291	1.080665	-0.39319	-0.33958	-0.99802	NA	66.55	31.72	40.03	-0.01	0.83	NA	0.262594	0.993787	-0.0791	0.073567	-0.17833	NA	50.29	12.31	20.68	0.21	0.47
A0A024R9D7	2,4-dienoyl CoA reductase 1, mitochondrial, isoform CRA_b	DECR1	1.00	NA	NA	-0.43434	NA	-1.08145	NA	NA	NA	31.20	-0.76	0.46	NA	NA	-1.00127	NA	-1.3018	NA	NA	NA	NA	NA	41.44	-0.57	0.62
E9PCR7	2-oxoglutarate dehydrogenase, mitochondrial	OGDH	10.67	-0.16344	0.146621	-0.7822	-0.53343	-0.57917	-0.5232	15.14	12.16	2.74	25.61	-0.41	0.34	-0.01232	0.221794	-0.7142	-0.75738	0.016448	-0.60675	11.45	2.12	30.08	28.55	-0.31	0.43
O09714	3-hydroxyacyl-CoA dehydrogenase type-2	HSD17B10	3.80	0.49136	0.319496	NA	0.53294	0.571598	0.01742	8.44	NA	26.83	7.43	0.39	0.23	0.160937	0.202774	NA	0.42378	0.058356	-0.38646	2.05	NA	21.63	19.47	0.09	0.30
A0A024RA75	3-hydroxyisobutyrate dehydrogenase	HIBADH	9.67	1.898692	1.364941	-0.14956	0.114863	0.488151	0.359647	25.87	12.92	6.29	63.37	0.68	0.79	1.610518	1.316762	-0.14496	0.11048	0.570763	0.313415	14.35	12.49	12.59	54.94	0.63	0.69
G6NVY1	3-hydroxyisobutyryl-CoA hydrolase, mitochondrial	HIBCH	2.33	-0.57731	NA	-0.53828	-0.81065	NA	NA	NA	13.31	NA	4.45	-0.64	0.15	-1.09136	NA	-1.40956	-0.52068	NA	NA	NA	42.24	NA	9.48	-1.01	0.45
P23396	40S ribosomal protein S3	RPS3	5.50	0.368071	0.286259	0.250701	0.427314	0.435787	0.705996	4.01	8.65	13.21	9.97	0.41	0.16	0.309782	0.47424	0.295315	0.285072	0.533677	0.559221	8.05	0.50	1.25	9.00	0.41	0.13
P62906	60S ribosomal protein L10a	RPL10A	2.40	-0.26268	0.10469	0.119976	NA	0.518329	0.433295	17.91	NA	4.17	19.58	0.18	0.31	-0.06751	0.378664	0.264889	NA	0.507588	0.517354	21.70	NA	0.48	12.45	0.32	0.24
P18077	60S ribosomal protein L35a	RPL35A	1.00	0.47107	NA	-0.1329	0.483264	NA	NA	NA	29.75	NA	12.87	0.27	0.35	0.522113	NA	0.371232	0.563522	NA	NA	NA	NA	NA	2.53	0.40	0.10
P24752	Acetyl-CoA acetyltransferase, mitochondrial	ACAT1	10.50	0.839969	0.62773	-0.12017	0.124568	0.739578	0.174817	10.38	11.97	27.33	24.55	0.40	0.39	0.670465	0.348867	-0.39286	0.105663	0.501028	0.128062	15.70	24.19	18.18	21.71	0.23	0.37
O86Y15	Acetyltransferase component of pyruvate dehydrogenase complex	DLAT	4.00	-0.44066	-0.8083	-0.68099	-0.97919	-0.65045	-0.75517	17.92	14.17	5.13	7.40	-0.72	0.18	-0.52519	-0.5988	-0.90857	-1.00025	-0.63866	-0.80009	3.61	4.49	7.99	13.47	-0.17	0.19
V9HWB7	Acetonate hydratase	ACO1	5.50	0.835674	1.321169	0.301481	0.738735	0.102966	0.451393	23.57	21.27	16.99	29.88	0.63	0.44	-0.173038	-0.76897	0.498132	1.293745	0.008453	0.834577	28.77	38.04	39.42	19.26	0.60	0.47
A2A274	Acetonate hydratase, mitochondrial	ACO2	21.50	-0.55515	-0.55723	-0.83229	-1.0386	-0.40971	-0.4109	0.10	10.09	0.06	17.88	-0.63	0.25	-0.49246	-0.40311	-1.00634	-1.17441	-0.33246	-0.46023	4.38	8.23	6.26	24.47	-0.64	0.35
P07108	Acyl-CoA binding protein	DBP	3.00	-0.76292	-1.04238	-1.43505	-1.79593	NA	NA	13.65	17.40	NA	34.04	-1.28	0.45	-1.40921	-0.66051	-1.7406	-2.27037	NA	NA	NA	25.68	NA	46.90	-1.52	0.67
P07108	Acyl-CoA binding protein	DBP	4.50	0.826823	0.892953	0.118024	0.213197	0.304759	0.334088	3.24	4.66	1.44	26.47	0.45	0.33	0.348502	0.297216	0.218664	0.602769	0.284687	0.296855	2.54	18.72	6.26	4.85	0.34	0.13
O5T4U5	Acyl-Coenzyme A dehydrogenase, C-4 to C-12 straight chain, isoform CRA_a	ACADM	6.00	0.258302	NA	0.134537	NA	NA	NA	NA	NA	NA	6.06	0.20	0.09	0.601376	NA	-0.10522	NA	NA	NA	NA	NA	NA	33.96	0.25	0.50
O9NPJ3	Acyl-coenzyme A thioesterase 13	ACOT13	1.20	-0.35609	0.27045	-0.72019	-0.86195	-0.34561	NA	30.23	6.94	NA	26.39	-0.40	0.44	-1.12489	-0.40691	-0.47102	-0.08899	-0.07861	NA	34.48	18.62	NA	21.79	-0.43	0.43
P54189	Adenylate kinase 2, mitochondrial	AK2	7.67	0.637852	-0.09129	-0.6231	-0.35425	0.122102	-0.2084	35.00	13.14	16.13	27.12	-0.09	0.43	0.374258	0.125494	-0.71794	-0.36763	0.514987	0.879724	12.16	17.09	17.78	40.22	0.13	0.59
P12235	ADP-ATP translocase 1	SLC25A4	14.50	-0.24764	-0.59029	-2.06035	-1.51109	-1.47486	-0.79508	16.72	26.60	32.71	45.75	0.17	0.68	-0.25221	-0.62269	-2.33107	-1.79629	-1.32027	-0.86412	18.06	25.91	12.77	51.45	-1.20	0.77
A0A024RAD8	Aldehyde dehydrogenase 4 family, member A1, isoform CRA_a	ALDH4A1	3.17	-0.5068	-0.29909	-0.64656	-0.28709	-0.575	-0.50523	10.16	17.53	3.42	4.88	-0.47	0.18	-0.70926	-0.5454	-0.3317	-0.43938	-0.2924	-0.2776	8.02	5.28	0.73	11.82	-0.43	0.17
X5D0N2	Aldehyde dehydrogenase 5 family member A1 isoform B (Fragment)	ALDH5A1	5.33	-0.10723	NA	-0.4813	-0.86291	NA	NA	NA	18.60	NA	26.74	-0.48	0.38	0.352112	NA	-1.00431	-1.57115	NA	NA	NA	27.43	NA	71.71	-0.74	0.99
A0A024RG64	Aldehyde dehydrogenase 6 family, member A1, isoform CRA_b	ALDH6A1	7.80	-0.02542	-0.1205	0.16204	0.556614	-0.13294	NA	4.66	19.22	NA	20.01	0.09	0.29	-0.05221	-0.04817	0.03613	0.450249	0.045791	NA	0.20	18.84	NA	11.60	0.09	0.21
B9EKV4	Aldehyde dehydrogenase 6 family, member A1	ALDH9A1	12.50	0.625528	0.2808	0.160381	0.181003	0.412555	0.342918	16.82	10.1	3.41	10.21	0.33	0.17	0.910043	0.491113	0.120588	0.413586	0.350388	0.278262	20.39	14.31	3.53	17.62	0.43	0.27
V9HWA2	Allo-keto reductase family 7, member A2 (Aflatoxin aldehyde reductase)	AKR7A2	1.50	1.64109	NA	-0.26521	-0.40815	0.672137	NA	NA	7.00	NA	64.80	0.41	0.95	1.422795	NA	-0.55627	-0.9619	0.629551	NA	19.75	NA	11.60	64.88	0.13	1.09
P49419	Alpha-aminoacidic semialdehyde dehydrogenase	ALDH7A1	6.33	0.809743	0.542545	0.585228	0.285924	0.726373	-0.77172	13.06	14.62	67.47	17.80	0.36	0.58	0.542566	0.18078	0.363779	0.311951	0.763721	-0.54797	17.64	2.54	60.20	4.28	0.27	0.45
O53YE7	Amine oxidase [flavin-containing]	MAOA	3.20	-1.40165	-1.11947	-1.15516	-1.17243	NA	-1.00283	13.79	0.85	NA	8.90	-1.17	0.15	0.076595	-0.73851	-1.02321	-1.07218	NA	-0.90644	38.92	2.40	NA	30.16	-0.73	0.47
O8TB11	Amine oxidase [flavin-containing]	MAOB	1.67	0.214016	NA	NA	0.307386	-0.9706	NA	NA	0.55933	NA	14.15	0.14	0.21	0.262523	NA	NA	0.05933	0.500005	NA	NA	NA	NA	15.44	0.27	0.22
O5TZP9	Annxin	ANXA1	12.67	0.454789	0.563415	-0.19253	-0.46524	-0.71576	-0.50624	5.32	13.33	10.25	42.52	-0.14	0.53	0.193686	0.344362	0.56637	0.372852	0.310761	0.399269	7.38	9.47	4.34	7.06	0.36	0.12
O5T727	APEX nuclease (Multifunctional DNA repair enzyme 1)	APEX1	5.80	-0.68237	-0.72939	0.529209	NA	-0.90827	-1.00737	2.30	NA	4.86	59.48	-0.56	0.62	-0.71572	-0.60851	0.106231	NA	-0.99566	-0.74165	5.25	NA	12.42	77.47	-0.41	0.81
O9S831	Apoptosis-inducing factor 1, mitochondrial	AIFM1	10.67	-0.20686	-0.55221	-1.46109	-0.91167	-0.57479	-0.0817	16.85	26.61	22.17	29.75	-0.63	0.50	-0.07465	-0.46636	-1.3279	-0.79849	-0.46091	-0.26623	19.09	25.66	9.70	26.80	-0.57	0.44
V9HW31	ATP synthase subunit beta	ATP5B	65.17	-0.92464	-0.93214	-1.75197	-1.9082	-1.03707	-0.95739	0.37	7.65	5.72	30.60	-1.26	0.45	-0.94244	-0.83304	-1.9789	-2.05898	-0.71922	-0.62965	5.49	6.17	1.16	40.90	-1.20	0.63
Q75947	ATP synthase subunit d, mitochondrial	ATP5F	10.83	-0.64311	-0.9145	-1.41433	-1.46065	-0.55535	-0.8099	18.10	0.31	25.90	22.23	-0.63	0.36	-0.72874	-0.73337	-1.41765	-1.43938	-0.17243	-0.59895	0.23	1.06	20.75	34.65	-0.85	0.49
P300A9	ATP synthase subunit delta, mitochondrial	ATP5D	4.93	-0.33756	-0.58314	-1.65781	-1.55225	-0.92988	-0.15915	12.01	5.17	8.59	42.82	-0.77	0.44	0.102338	-0.26906	-1.42239	-1.28998	-0.15569	0.046857	8.39	6.49	10.40	43.80	-0.87	0.30
P56385	ATP synthase subunit e, mitochondrial	ATP5E	1.33	-0.01206	-0.12236	-0.27588	-0.26982	-0.65925	-0.27507	5.40	22.17	18.72	16.73	-0.34	0.29	-0.17420	0.19657	0.52462	-0.34726	0.302401	0.063148	17.94	6.68	11.70	21.14	-0.08	0.32
P56134	ATP synthase subunit f, mitochondrial	ATP5F2	3.50	-0.89469	-0.60985	-0.90537	-1.21402	NA	NA	13.92	15.07	NA	14.95	-0.91	0.25	-0.73835	-0.353	-1.36782	-1.87279	NA	NA	20.95	24.50	NA	49.14	-1.09	0.67
O75964	ATP synthase subunit g, mitochondrial	ATP5L	2.75	-0.39051	NA	-0.821	-0.39735	-0.34259	NA	NA	20.62	NA	44.00	-0.49	0.22	-0.42119	NA	-0.43158	-0.21367	-0.50865	NA	NA	10.66	NA	6.61	-0.39	0.13
P49047	ATP synthase subunit O, mitochondrial	ATP5O	11.17	-0.04458	-0.27915	-1.37058	-1.28548	-0.01922	0.208476	11.47	4.17	9.23	34.40	-0.46	0.69	0.060716	-0.0603	-0.12717	-1.06477	-0.11667	0.493372	5.93	3.06	29.46	41.51	-0.30	0.65
O6IB54	ATP synthase-coupling factor 6, mitochondrial	ATP5J	3.33	-0.46192	-0.65786	-1.04989	-1.1	-0.16942	-0.0297	9.59	2.46	6.83	47.07	-0.58	0.44	-0.74811	-0.248	-1.81222	-1.16306	-0.77935	-0.8329	24.27	31.43	2.62	32.12	-0.93	0.52
O53Y06	ATPase, H+ transporting, lysosomal 31kDa, V1 subunit 1 isoform																										

UniProt	Protein name	Gene name	Peptide mean	08/017 HESC-RPE to hRPE											08/023 HESC-RPE to hRPE												
				Analysis						Technical replicate CV			Biological CV	Fold change (mean)	StDev	Analysis						Technical replicate CV			Biological CV	Fold change (mean)	StDev
				1.1	1.2	2.1	2.2	3.1	3.2	1	2	3				1.1	1.2	2.1	2.2	3.1	3.2	1	2	3			
P30084	Enoyl-CoA hydratase, mitochondrial	ECHS1	7.67	0.39047	0.325417	-0.67336	-0.51787	-0.08545	-0.6211	3.19	7.61	25.96	35.66	-0.20	0.48	0.401885	0.365041	-0.80104	-0.46076	0.326182	0.698982	1.81	16.60	18.17	37.29	0.09	0.18
V9HW98	Epididymis luminal protein 2	YWHAH	18.67	-0.21164	-0.2477	0.358618	-0.147836	-0.43028	-0.534	1.77	10.31	5.08	26.76	-0.15	0.34	-0.29109	-0.3092	0.007824	-0.21016	-0.10372	-0.24045	0.89	10.66	6.70	7.06	-0.19	0.52
DOPN1	Epididymis luminal protein 4	YWHAZ	14.33	-0.63117	-0.90274	-0.3634	-0.27523	-1.43576	-1.52421	13.27	4.32	4.33	37.98	-0.86	0.53	-0.55579	-0.5578	-0.45186	-0.34919	-0.69928	-0.80832	0.11	5.03	5.34	12.16	-0.17	0.57
V9HW90	Epididymis luminal protein 75	GSR	2.50	-0.17518	1.027452	0.033275	0.506461	0.810876	0.353466	55.75	22.99	22.23	11.18	0.43	0.46	-0.41738	-0.679971	-0.45844	0.505866	0.648275	-0.51364	51.33	36.61	54.06	2.26	0.11	0.16
V9HW42	Epididymis secretory protein LI 29	CKB	50.00	-2.16256	-2.32478	-2.1682	-2.70202	-3.12377	-3	7.94	25.87	6.06	27.49	-2.58	0.42	-2.373	-2.45987	-3.23092	-2.51815	-2.55043	-2.50876	4.26	9.65	2.04	4.48	-0.46	0.09
V9HW22	Epididymis secretory sperm binding protein LI 67p	PAK7	12.50	-0.59355	-0.33432	-0.20867	-0.32721	-0.35666	-0.1034	12.67	5.81	12.38	8.43	-0.32	0.16	-0.57068	-0.332	-0.31713	-0.59595	-0.68192	-0.56118	12.10	12.59	5.91	15.42	-0.42	0.23
V9HW47	Epididymis secretory sperm binding protein LI 70p	ATC	4.40	NA	2.708129	1.39037	1.33348	0.29977	0.39178	NA	12.70	4.51	81.32	1.19	0.57	NA	2.07853	1.146196	0.932189	0.276155	0.655656	NA	10.47	18.52	57.80	1.02	0.68
V9HWB4	Epididymis secretory sperm binding protein LI 89n	HSPAS	36.67	0.922878	0.761957	0.818482	1.064198	0.97125	0.975126	7.88	12.01	0.15	4.66	0.92	0.11	0.871029	0.806064	0.620645	0.732214	0.806912	0.783625	3.18	6.15	1.14	5.97	0.77	0.09
E9KL44	Epididymis tissue sperm binding protein LI 14m	NPAS	27.67	0.479001	0.616135	0.230736	0.164397	-0.00399	0.051095	6.72	3.25	2.70	19.00	0.26	0.24	0.45672	0.570864	-0.20626	-0.21104	0.474634	0.33847	5.59	0.46	6.89	25.09	0.23	0.36
O92506	Estradiol 17 β -dehydrogenase 8	HSD17B8	1.50	NA	0.665441	-0.16137	-0.12537	0.510696	NA	NA	1.76	NA	27.24	0.22	0.43	NA	-1.40925	0.202701	0.398732	-0.00083	NA	NA	9.59	NA	50.96	-0.20	0.82
AA024R9P6	Family with sequence similarity 82, member C, isoform CRA_a	FAM82C	2.00	-0.77533	NA	0.12776	-0.22261	NA	NA	NA	17.09	NA	35.43	-0.29	0.46	-0.47773	NA	-0.19565	-0.56218	NA	NA	NA	17.87	NA	5.91	-0.41	0.19
P49327	Fatty acid synthase	FASN	2.50	-0.09079	NA	1.258588	0.003559	1.696295	NA	NA	57.91	NA	59.90	0.72	0.90	-0.16315	NA	1.402871	-0.68907	1.022059	NA	NA	87.68	NA	38.01	0.39	0.98
AA024C264	Fructose-bisphosphate aldolase	ALDOE	29.40	-1.13636	-1.60061	NA	-1.49243	-2.01299	-1.71889	22.56	NA	14.36	17.40	-1.59	0.32	-1.146437	-1.82175	NA	-1.46563	-1.74741	-1.70001	17.43	NA	2.32	9.17	-1.64	0.17
P07954	Fumarate hydratase, mitochondrial	FH	8.33	-0.45165	-0.2338	-1.80563	-0.95497	-0.94521	-0.43879	10.66	40.53	24.57	32.27	-0.81	0.57	-0.25247	-0.15232	-1.66242	-1.00126	-1.10661	-0.8117	4.91	31.85	14.40	40.36	-0.83	0.56
P17900	GaNGlioside GM2 activator	GM2A	1.80	0.784138	1.00946	1.028086	0.26633	0.927401	NA	11.02	36.49	NA	8.53	0.80	0.32	0.406521	0.380697	-0.10526	0.081438	0.495612	NA	1.27	4.74	NA	16.09	0.27	0.22
ABXX4	Glutamine synthetase	PIGS9	10.83	1.116885	-0.20791	-1.24968	-1.52848	-1.29362	-1.9128	60.72	13.62	29.89	89.62	-0.85	1.12	1.009174	-0.13552	-0.79225	-1.19969	-0.90343	-1.73095	53.34	19.84	39.48	72.76	-0.63	0.93
OZ74Y4	GTP-AMP phosphotransferase AK3, mitochondrial	AK3	2.33	0.592097	NA	0.898295	-0.13518	NA	NA	NA	48.59	NA	5.87	0.45	0.53	0.951083	NA	0.865214	0.372462	NA	NA	NA	23.92	NA	15.20	0.73	0.31
AA024R3X4	Heat shock 60kDa protein 1 (Chaperonin), isoform CRA_a	HSPD1	41.17	-0.24718	-0.40671	-0.80101	-0.93618	0.498082	1.452736	7.81	6.62	45.15	71.79	-0.07	0.90	-0.05676	-0.34151	-0.94367	-0.84987	0.252589	0.888663	13.91	4.60	29.29	50.40	-0.18	0.68
G61BN1	HNRNP protein	HNRNP	10.33	-0.37843	-0.33839	0.423494	0.291965	-0.75367	-0.45226	1.96	6.44	14.72	36.29	-0.20	0.46	0.033998	0.075632	0.303365	0.450434	-0.17956	-0.33541	2.05	7.20	18.76	29.70	-0.03	0.43
P35914	Hydroxymethylglutaryl-CoA lyase, mitochondrial	HMGCL	1.00	NA	-0.29117	-1.43792	NA	-0.37612	0.152612	NA	NA	25.63	42.43	-0.49	0.67	NA	0.358009	-0.34772	NA	-0.09155	0.577127	NA	NA	32.20	24.60	0.12	0.42
VS4868	Hydroxymethylglutaryl-CoA synthase, mitochondrial	HMGCS2	9.33	1.134297	0.95498	1.156106	1.2448	1.098142	1.145154	8.78	4.35	20.34	23.33	1.12	0.10	0.57205	0.602847	0.340584	0.736461	0.205486	0.749139	1.51	19.28	26.34	0.94	0.53	0.22
G6Y1N6	Hydroxysteroid dehydrogenase-like protein 2	HSDL2	4.50	1.10183	NA	0.194599	0.003559	0.702004	NA	NA	9.35	NA	32.21	0.50	0.50	1.422714	NA	0.277471	0.175829	1.636285	NA	NA	4.98	NA	21.88	-0.88	0.76
O9HZU2	Inorganic pyrophosphatase 2, mitochondrial	PP2A	5.40	-0.1151	-0.04806	1.03638	0.205216	NA	-0.06017	3.29	39.65	NA	33.10	0.20	0.48	0.622452	-0.18026	-0.50977	-0.20056	NA	0.164431	38.36	15.10	NA	21.53	0.02	0.43
O53GF8	Isoflavone dehydrogenase [NAD] subunit, mitochondrial (Fragment)	NADP2	7.00	-0.2201	-0.4629	-0.62228	-0.69389	NA	-0.77221	11.87	3.51	NA	16.11	-0.27	0.32	-0.39214	-0.51171	-0.79884	-0.88765	NA	-0.59862	5.86	4.35	NA	13.46	-0.64	0.20
V9HW42	Isoflavone dehydrogenase [NADP]	IDI1	6.66	-0.43532	1.412354	0.441368	-0.07535	0.250916	0.312855	79.92	25.06	3.04	22.97	0.62	0.24	-0.01421	1.564886	0.827637	0.080245	-0.01183	0.130883	69.45	35.83	52.32	16.52	0.59	0.26
O9NS54	Isolecithin-RNA ligase, mitochondrial	IARS2	3.00	0.899033	NA	0.644588	NA	NA	NA	NA	NA	NA	16.80	0.82	0.54	1.10346	NA	0.773991	NA	NA	NA	NA	NA	NA	16.08	0.94	0.23
AA0A0AMT83	Isovaleryl-CoA dehydrogenase, mitochondrial	IVD	2.17	-0.07764	-0.21803	0.09136	-0.58193	0.283439	0.556993	6.88	23.82	13.37	28.28	-0.02	0.40	0.376791	0.262226	0.387767	-0.33925	-0.20207	0.529716	5.61	34.90	40.50	8.85	0.15	0.38
O14894	Ketamine reductase-mycristallin	KRM	11.67	-0.86463	-1.37756	-1.5491	-1.54607	-1.75674	-1.36213	24.88	0.15	19.22	16.78	1.11	0.30	-0.75734	-1.10344	-1.65602	-1.83448	-2.00435	-1.4042	16.88	8.74	29.00	33.80	-1.66	0.47
E5KNV5	Lactate-rich PPR-motif containing	LRPPRC	9.40	-1.00335	0.751622	-0.19739	-0.94123	0.161381	NA	76.77	35.67	NA	24.38	-0.25	0.75	-1.46377	0.539824	0.025833	-1.14398	0.260379	NA	84.97	54.39	NA	24.68	-0.36	0.89
O5U077	L-ucinate dehydrogenase	LDHB	19.00	-0.29468	-0.17775	0.043599	0.141397	0.112825	0.187159	5.73	4.79	3.64	13.83	0.00	0.19	-0.29109	-0.12395	0.295728	0.198218	-0.15023	-0.14693	8.18	4.78	0.16	17.81	-0.04	0.23
G6A1O1	LYPLA1 protein	LYPLA1	4.20	0.41548	-0.07981	-0.55104	-0.18316	NA	0.279593	24.04	17.93	NA	22.12	-0.02	0.38	-0.12752	0.280121	-0.54885	-0.696	NA	0.294762	19.85	7.21	NA	30.31	-0.16	0.46
O16891	IMMT	IMMT	13.83	-0.26174	-0.10817	-0.70412	-0.48798	0.325545	0.606287	7.52	10.57	13.72	38.03	-0.11	0.49	-0.03302	-0.22155	-0.49543	-0.3313	0.524075	0.709101	9.23	8.04	9.06	38.69	0.03	0.49
O5XKP0	MIC	MIC13	1.00	-1.29347	-1.20179	-1.3307	-2.06507	-1.06908	NA	4.49	34.57	NA	19.64	-1.39	0.38	-0.55193	-0.61322	-1.23833	-1.32812	-0.58569	NA	3.00	4.62	NA	25.44	-0.86	0.38
H7C1U8	MIC	APOO	1.60	-0.27121	-0.29933	-0.93142	-0.93921	NA	-0.27524	1.38	0.38	NA	23.99	-0.54	0.36	-0.091479	-0.0357	-0.9117	-0.52576	NA	-0.19367	6.23	17.81	NA	24.31	-0.31	0.40
C9JZ6	MIC	CHCHD3	1.50	0.586602	0.663644	0.043599	-0.49837	NA	NA	3.78	26.26	NA	39.49	0.20	0.54	0.341256	0.546931	-0.64371	0.253667	NA	NA	10.06	42.62	NA	27.77	0.12	0.53
O9Y3D6	Mitochondrial fission 1 protein	FIS1	2.00	NA	-0.02373	-0.63293	-1.90425	NA	NA	NA	58.57	NA	51.83	-0.85	0.96	NA	0.099609	-2.42443	-1.48457	NA	NA	NA	44.50	NA	84.19	-1.27	1.28
O9H936	Mitochondrial glutamate carrier 1	SLC25A22	3.00	NA	-1.9095	-0.31446	-0.55883	NA	NA	NA	11.95	NA	66.71	-0.93	0.86	NA	-1.69078	-1.14105	-0.60453	NA	NA	NA	26.00	NA	40.17	-1.15	0.54
O94826	Mitochondrial import receptor subunit TOM70	TOMM70A	10.00	0.038842	0.069666	-1.39129	NA	NA	NA	1.51	NA	NA	65.47	-0.43	0.83	0.093945	-0.18126	-1.22315	NA	NA	NA	13.45	NA	NA	55.06	-0.44	0.69
E5KRK5	Mitochondrial NADH-ubiquinone oxidoreductase 75 kDa subunit	NDUFS1	18.00	-0.32001	-0.26905	-1.13581	-1.11648	-0.76884	-0.04872	2.50	0.95	34.58	28.69	-0.61	0.46	-0.51733	-0.37141	-1.15704	-1.29431	-0.87851	-0.00977	7.15	11.60	41.34	27.50	-0.69	0.48
O9NU11	Mitochondrial acyl-gluconate esterase, mitochondrial	ABHD10	3.75	NA	-0.35943	-1.28736	-1.40745	-0.7585	NA	NA	5.88	NA	32.40	-0.91	0.52	NA	-0.84809	-1.09040	-1.48245	0.020124	NA	NA	14.26	NA	48.80	-0.88	0.65
P35580	Myosin-10	MYH10	10.17	1.357816	1.470366	0.552529	0.574781	0.442283	0.37564	5.51	1.09	3.27	40.21	0.80	0.40	1.376116	1.121269	0.285798	1.163715	0.740394	0.386223	8.07	41.75	17.27	26.61	0.86	0.46
P23368	NAD-dependent male enzyme, mitochondrial	ME2	3.67	NA	0.572379																						

UniProt	Protein name	Gene name	Peptide mean	08/017 hESC-RPE to hRPE										08/023 hESC-RPE to hRPE													
				Analysis						Technical replicate CV			Biological CV	Fold change (mean)	StDev	Analysis						Technical replicate CV			Biological CV	Fold change (mean)	StDev
				1.1	1.2	2.1	2.2	3.1	3.2	1	2	3				1.1	1.2	2.1	2.2	3.1	3.2	1	2	3			
AOA0C4DFU2	Superoxide dismutase	SOD2	6.00	-0.1575	0.02017	-1.38021	-1.20002	-0.46267	-0.31196	8.70	8.82	7.38	39.00	-0.58	0.57	-0.02319	0.074507	-0.88548	-0.82105	0.283158	0.32242	4.79	3.16	1.92	37.16	-0.17	0.54
V9HWC9	Superoxide dismutase [Cu-Zn]	SOD1	11.50	0.258467	0.121539	0.578143	0.378871	0.575074	0.631229	6.71	9.75	2.75	14.23	0.42	0.21	0.207984	0.254489	0.36122	0.341927	0.327665	0.448422	2.28	0.95	5.92	5.64	0.32	0.08
H9ZYI2	Thioredoxin	TXN	2.80	0.329741	0.451124	NA	0.628462	0.316705	-0.97395	5.95	NA	59.35	27.25	0.64	0.64	-0.21951	0.003741	NA	0.807968	-0.03178	-0.71927	10.56	NA	33.07	40.62	0.06	0.55
P30048	Thioredoxin-dependent peroxidoreductase, mitochondrial	PRDX3	7.00	0.018969	0.552972	-0.3699	-0.44285	-0.01949	0.460563	25.88	3.57	23.31	25.02	0.03	0.41	0.257033	0.357665	-0.47102	-0.53706	-0.1736	0.363605	4.93	3.24	26.03	27.18	-0.03	0.41
AOA024R3W2	Translocase of outer mitochondrial membrane 20 homolog (Yeast), isoform CRA_a	TOMM20	1.67	0.675313	NA	-0.79778	-0.1051	NA	NA	NA	33.31	NA	50.83	-0.08	0.74	0.464363	NA	-0.58332	0.259371	NA	NA	NA	40.17	NA	27.38	0.05	0.56
AOA024R0P9	Translocase of outer mitochondrial membrane 40 homolog (Yeast), isoform CRA_c	TOMM40	1.67	0.426068	NA	0.429411	-0.29904	NA	NA	NA	34.96	NA	15.40	0.19	0.42	-0.12776	NA	-0.02862	-0.00937	NA	NA	NA	0.94	NA	5.33	-0.06	0.06
P55084	Trifunctional enzyme subunit beta, mitochondrial	HADHB	12.00	0.676915	0.442769	0.232768	0.474563	0.65475	0.450462	11.45	11.82	10.00	7.88	0.49	0.16	0.717464	0.350597	0.140239	0.326916	0.649857	0.717328	17.88	9.14	3.31	15.39	0.48	0.24
B4DLN1	Uncharacterized protein	NA	2.40	-0.23045	0.489624	-0.60404	-0.2958	NA	0.383786	34.58	15.05	NA	27.54	-0.05	0.47	-0.05016	0.998677	-1.24218	-0.89608	NA	-0.59118	49.26	16.88	NA	60.94	-0.36	0.87
AOA024RCN6	Valyl-tRNA synthetase, isoform CRA_a	VARS	2.00	1.074891	NA	NA	NA	-0.33602	NA	NA	NA	NA	64.12	0.37	1.00	1.236441	NA	NA	NA	0.464958	NA	NA	NA	NA	36.94	0.85	0.55
Q9P035	Very-long-chain (3R)-3-hydroxyacyl-CoA dehydratase 3	HACD3	4.17	-0.05068	0.080299	-0.5063	-0.79456	0.044664	-0.71727	6.42	14.08	36.50	22.53	-0.32	0.40	-0.74113	-0.10297	-0.63112	-1.17498	-0.16941	-0.40363	30.78	26.35	11.45	20.67	-0.54	0.40
AOA024R1Z6	Vesicle amine transport protein 1 homolog (T. californica), isoform CRA_a	VAT1	8.50	0.171652	0.981853	-0.17357	-0.11477	0.432786	0.459432	38.70	2.88	1.31	26.09	0.29	0.43	-0.14075	0.823601	-0.57764	-0.46458	0.101781	-0.00568	45.58	5.54	5.26	31.33	-0.04	0.50
AOA024QZT0	Voltage-dependent anion channel 2, isoform CRA_c	VDAC2	16.17	-0.97212	-1.2679	-2.18618	-2.04403	-0.75414	-0.76907	14.45	6.96	0.73	42.51	-1.33	0.64	-0.96836	-1.07068	-2.15733	-2.04641	-1.02945	-1.00182	5.01	5.43	1.35	37.01	-1.38	0.56
P21796	Voltage-dependent anion-selective channel protein 1	VDAC1	29.00	-1.46926	-1.38399	-2.06146	-2.12681	-1.14001	-1.03722	4.18	3.20	5.04	33.06	0.46	0.46	-1.38325	-1.35695	-2.00838	-1.99421	-0.99278	-0.87351	1.29	0.69	5.84	35.46	-1.43	0.48
Q9V277	Voltage-dependent anion-selective channel protein 3	VDAC3	7.67	-0.51945	-0.81664	-1.11844	-0.86099	-0.20878	-0.42639	14.51	12.58	10.65	23.18	-0.66	0.33	-0.68299	-0.19104	-1.10522	-0.88625	-0.56903	-0.13301	23.88	10.71	21.21	22.94	-0.59	0.38
P38606	V-type proton ATPase catalytic subunit A	ATP6V1A	8.67	-0.98726	-0.83109	-0.41689	-0.34518	-0.77265	-0.99126	7.65	3.51	10.69	21.55	-0.72	0.28	-1.06087	-0.70939	-0.40085	-0.29648	-0.74083	-0.72244	17.14	5.11	0.90	19.49	-0.66	0.27

Supplementary Table S5. The 139 proteins involved in response to stress presented in Figure 4b. Differences in expression for both hESC-RPE lines compared to hRPE presented on log2 scale.

Mean number of peptides used for quantification, fold change value for each replicate analysis, technical replicate CV, biological replicate CV, mean fold change, and standard deviation shown for each protein. Note! CV values are calculated using normal scale, not the log2 scale shown here.

UniProt	Protein name	Gene name	Peptide mean	08/017 hESC-RPE to hRPE												08/023 hESC-RPE to hRPE													
				Analysis						Technical replicate CV			Biological CV	Fold change (mean)	StDev	Analysis						Technical replicate CV			Biological CV	Fold change (mean)	StDev		
				1.1	1.2	2.1	2.2	3.1	3.2	1	2	3				1.1	1.2	2.1	2.2	3.1	3.2	1	2	3					
P61604	10 kDa heat shock protein, mitochondrial	HSP61	7.33	0.52446	0.484206	NA	0.901593	NA	1.97	NA	NA	19.34	0.64	0.23	0.917834	0.766584	NA	0.606649	NA	7.41	NA	NA	11.62	0.76	0.16				
P35991	26S proteasome regulatory subunit 7	PSMD11	2.67	0.382338	0.153475	0.271931	0.280129	0.495919	43.97	48.72	10.31	63.42	0.62	0.31	0.917834	0.766584	NA	0.606649	NA	7.41	NA	NA	11.62	0.76	0.16				
P62195	26S proteasome regulatory subunit 8	PSMC5	2.33	0.38445	-0.12236	NA	0.229236	NA	24.59	NA	NA	18.64	0.01	0.33	0.535932	-0.08136	NA	0.062322	NA	29.80	NA	NA	9.68	0.17	0.32				
Q00231	26S proteasome non-ATPase regulatory subunit 11	PSMD11	2.33	NA	NA	NA	0.408966	0.075238	NA	NA	NA	27.28	0.24	0.40	NA	NA	NA	-0.57904	0.219761	NA	NA	NA	38.18	-0.18	0.56				
O00487	26S proteasome non-ATPase regulatory subunit 14	PSMD14	1.50	NA	NA	NA	0.098951	0.668083	NA	NA	NA	16.20	0.20	0.40	NA	NA	NA	0.137572	1.448961	NA	NA	NA	60.19	0.79	0.93				
P23396	40S ribosomal protein S3	RPS3	5.50	0.368071	0.286259	0.250701	0.427314	0.435787	0.705996	4.01	8.65	13.21	9.97	0.41	0.39	0.309782	0.47424	0.295315	0.285072	0.533677	0.559221	8.05	0.50	1.25	9.00	0.41	0.13		
P24752	Acetyl-CoA acetyltransferase, mitochondrial	ACAT1	10.50	0.839969	0.627773	-0.12017	0.124568	0.739578	0.174817	10.38	11.97	27.33	24.55	0.40	0.36	0.670465	0.348867	-0.39286	0.105563	0.51028	0.182062	15.70	24.19	18.18	21.71	0.21	0.13		
P61160	Actin-related protein 2	ACTR2	1.50	1.017997	NA	NA	-0.5041	NA	NA	NA	NA	68.37	0.26	1.08	1.141303	NA	NA	0.04198	NA	NA	NA	NA	NA	51.42	0.59	0.78			
P07108	Acyl-CoA-binding protein	DBI	4.50	0.826823	0.892953	0.118024	0.213197	0.304759	0.334088	3.24	4.66	1.44	26.47	0.45	0.33	0.348502	0.29672	0.218664	0.602769	0.284687	0.296855	2.54	18.72	0.60	4.85	0.34	0.13		
O51405	Acyl-Coenzyme A dehydrogenase, C-4 to C-12 straight chain, isoform CRA_a	ACADM	6.00	0.258032	NA	0.134537	NA	NA	NA	NA	NA	6.06	2.00	0.09	0.601736	NA	-0.10522	NA	NA	NA	NA	NA	33.96	0.25	0.50				
P23526	Adenosylhomocysteinase	AHCY	6.67	0.885431	0.554256	0.520551	0.544193	0.362523	0.726989	6.43	1.16	19.27	3.09	0.57	0.14	0.463728	0.538427	0.34597	0.67904	0.252589	0.250455	3.67	16.20	0.10	10.11	0.42	0.17		
Q0N142	Adenylylsuccinate synthase isozyme 1	ADSS1	5.00	1.800788	NA	1.573164	2.225313	0.245973	1.138237	NA	31.43	42.39	1.40	0.75	1.369856	NA	1.122449	1.802673	0.702395	0.740579	NA	40.96	1.87	29.59	1.18	0.53	0.44		
P49588	Alanine--RNA ligase, cytoplasmic	AARS	6.83	-0.45273	-0.78097	0.343657	0.68071	0.768259	0.418144	16.02	16.45	17.08	39.55	0.16	0.63	0.089833	-0.2886	-0.1025	0.340532	0.707596	0.046664	18.44	21.55	31.84	17.52	0.13	0.35		
O43707	Actin-alpha-4	ACTN4	2.83	0.61939	0.72729	0.600866	0.524718	0.588709	0.307401	5.29	3.73	3.76	7.61	0.56	0.14	0.75638	0.750695	0.94059	0.993244	0.73618	0.90281	0.28	25.99	8.16	7.65	0.01	0.41		
O5T229	Annxin	ANXA1	12.67	0.454789	0.563415	-0.19253	-0.46524	-0.71576	-0.50624	5.32	13.33	10.25	42.52	-0.14	0.53	0.193686	0.344362	0.56637	0.372852	0.310761	0.399269	7.38	9.47	4.34	7.06	0.36	0.13		
V9HWED	Annxin	ANXA5	18.83	0.811987	0.898157	1.011878	0.990748	0.182105	0.066023	4.22	1.04	6.59	29.39	0.66	0.42	0.44018	0.617715	0.650834	0.519134	0.631421	0.555293	8.69	6.45	3.73	2.34	0.57	0.08		
O10567	AP-1 complex subunit beta-1	APIB1	4.60	0.919135	0.933771	1.232881	1.284301	0.19974	NA	0.72	2.52	NA	34.55	0.91	0.43	0.720659	1.110978	1.432238	0.318239	0.31358	NA	19.01	52.04	NA	42.00	0.65	0.68		
O5Z7P7	APEX nuclease (Multifunctional DNA repair enzyme) 1	APX1	5.80	-0.68237	-0.72939	0.529209	NA	-0.90827	-1.00737	2.30	NA	4.86	59.48	-0.56	0.62	-0.71572	-0.60851	0.102621	NA	-0.99566	-0.74165	5.25	15.21	12.42	77.47	0.41	0.81		
AA042R3E3	Apollipoprotein A4, isoform CRA_a	APOA1	2.33	2.634717	2.317136	1.794767	2.021072	0.964211	0.421314	15.50	11.07	26.30	53.91	1.69	0.84	2.171774	2.231446	1.251878	1.297599	2.338172	1.711849	2.92	22.26	30.22	30.95	1.88	0.48		
P0249F	Apollipoprotein E	APOB2	2.40	NA	0.463317	-0.40371	-0.26982	0.76788	-0.13068	NA	4.21	30.73	36.02	0.22	0.45	NA	0.988047	1.12512	-0.52104	-0.22291	0.423736	NA	72.94	31.22	29.43	0.66	0.27		
O9S821	Apoptosis-inducing factor 1, mitochondrial	AIFM1	10.67	-0.2086	-0.55221	-1.46109	-0.91167	-0.53779	-0.08117	16.85	26.61	22.17	29.75	-0.63	0.50	-0.0745	-0.46556	-1.32789	-0.79849	-0.46091	-0.86639	19.09	25.66	9.70	26.80	0.57	0.44		
O43681	ATPase ASNA1	ASNA1	3.50	-0.59088	0.424215	-0.18408	-1.35055	NA	-0.07632	47.80	54.25	NA	31.44	-0.36	0.62	-0.59133	-0.39556	0.014603	-0.4828	NA	-0.36948	9.58	24.14	NA	13.55	-0.36	0.23		
Q01813	ATP-dependent 6-phosphofructokinase, platelet type	PFKP	10.50	-0.13809	-0.32359	0.372812	0.97712	0.5848	0.737616	9.08	13.44	7.48	30.29	0.22	0.46	-0.26321	-0.09424	0.137711	-0.07298	0.403411	0.230156	8.27	10.31	8.48	17.38	0.06	0.24		
Q08211	ATP-dependent RNA helicase A	DHX9	7.83	0.265362	0.161633	-0.15723	0.47608	0.06293	-0.23659	5.08	30.55	8.50	13.47	0.07	0.27	0.206655	0.397523	-0.08388	-0.17869	-0.33637	-0.23793	9.34	4.65	4.82	22.03	0.04	0.28		
P35613	Basigin	BSG	8.67	-2.19735	NA	-0.83417	-0.69432	NA	NA	NA	6.85	NA	65.05	-1.24	0.83	-1.26479	NA	-0.5033	-0.66846	NA	NA	8.09	NA	32.78	-0.81	0.40	0.28		
P07814	Bifunctional glutamate/proline--RNA ligase	EPRS	3.00	-0.08681	1.409284	-0.03433	NA	1.19046	NA	67.39	NA	39.16	0.26	0.79	-0.14662	1.361615	0.17786	NA	0.012559	NA	67.78	NA	30.18	0.35	0.69	0.27			
P04040	Catalase	CAT	8.83	0.236079	-0.16365	-0.33404	-0.3794	0.07961	0.38357	19.47	2.22	14.84	20.25	-0.03	0.31	0.311725	-0.01573	0.566712	0.251973	0.487228	0.478665	15.98	15.37	12.74	15.99	0.39	0.27		
P21764	Catechol O-methyltransferase	COMT	4.17	-0.00296	-0.03516	0.291553	0.388972	0.124156	-0.58928	1.58	4.77	34.27	19.24	0.03	0.34	0.54076	0.341408	0.393751	0.321766	-0.43663	-0.6281	9.76	3.53	3.77	32.82	0.09	0.49		
CA049R374	Cathelin B, isoform CRA_a	CTSL	6.00	0.799262	0.809523	-0.02169	0.1240	0.60250	0.482032	0.50	4.48	11.99	29.85	0.49	0.44	0.322979	0.275789	-0.05047	-0.45641	0.351199	0.010665	2.31	5.44	31.77	28.37	0.29	0.41		
P16700	CD44 antigen	CD44	4.00	0.317993	-0.16535	0.127275	0.434745	0.585545	0.432925	23.28	15.01	7.46	14.50	0.29	0.27	-0.188695	-0.34794	0.282924	0.177392	0.259688	0.201769	26.00	10.66	2.84	12.18	0.14	0.28		
Q6FHM9	CD59 antigen, complement regulatory protein, isoform CRA_b	CD59	2.00	0.87849	NA	NA	NA	0.16444	NA	NA	NA	34.29	50.30	0.50	0.68	0.68866	NA	NA	NA	0.942564	NA	NA	NA	12.41	8.82	0.18	18.42	0.18	0.18
B4DMA2	cDNA FLJ54023, highly similar to Heat shock protein HSP 90-beta	HSP90B	27.00	0.332402	NA	0.510353	0.764104	0.240186	-0.17594	NA	12.41	20.26	20.63	0.33	0.35	0.220826	NA	0.411365	0.399498	0.10966	-0.17156	NA	0.58	13.74	14.74	0.19	0.24	0.16	
B4DEA3	cDNA FLJ56531, highly similar to UV excision repair protein RAD23 homolog B	NA	4.00	0.432208	NA	NA	0.310857	-0.06637	NA	NA	18.38	14.54	23.23	0.63	0.26	0.326304	NA	NA	0.013379	-0.16171	NA	NA	8.57	19.38	0.06	0.25	0.25	0.25	
B2RDN9	cDNA, FLJ96699, highly similar to Homo sapiens tyrosin autoantigen 70kDa (Ku antigen) (GZP21), mRNA	NA	14.25	-0.71173	NA	NA	0.470573	0.306559	NA	NA	16.38	52.55	-0.44	0.26	-0.37414	NA	NA	0.196457	-0.586	-0.51395	NA	NA	3.53	28.33	-0.32	33.35	0.13	0.13	
P41208	Centrin-2	CENT2	1.25	-0.96596	-0.40686	-0.42826	NA	0.211498	NA	27.06	NA	32.76	-0.10	0.48	0.234487	-0.09189	0.537021	NA	0.438166	NA	15.93	NA	NA	15.93	0.28	0.28	0.28	0.28	
P10909	Clustrin	CLU	3.00	0.022462	-0.04884	0.232993	0.836091	-0.18857	NA	3.49	29.17	NA	28.71	0.47	0.40	0.253361	-0.55314	0.111013	0.807679	-0.01079	NA	38.53	33.50	NA	23.47	0.12	0.40	0.40	
Q5KJ26	Colectin-12	COLECT12	2.67	1.855229	1.554266	0.775154	1.569751	1.270517	0.999494	14.70	37.98	13.47	22.44	1.34	0.40	2.1545	1.633213	1.20281	2.124668	1.788993	1.007687	25.13	43.71	37.38	15.91	1.65	0.47	0.47	
L14618	Copper chaperone for superoxide dismutase	CCHCR1	1.00	NA	0.207893	0.47765	0.681203	NA	0.442268	NA	9.96	NA	12.90	0.45	0.10	NA	1.415809	1.09584	0.920504	NA	0.71947	NA	14.50	0.40	0.40	0.40	0.40	0.40	
V9HWZ7	Crystatin, alpha B, isoform CRA_a	CRYAB	7.50	0.659075	0.395929	0.143683	0.24313	2.18964	1.084734	12.86	48.77	63.57	34.71	0.62	0.45	0.885226	0.715054	0.451199	0.689039	1.140096	1.155322	8.26	11.62	0.74	20.26	0.84	0.28	0.28	
P01034	Cystatin-C	CST3	1.00	0.412673	0.779647	0.193672	NA	NA	0.386492	17.89	NA	14.40	0.44	0.24	0.370025	1.141465	0.512395	NA	NA	0.730421	36.93	NA	NA	10.34	0.40	0.34	0.34	0.34	
P78527	DNA-dependent protein kinase catalytic subunit	PRKDC	6.50	-0.64218	0.24184	0.319222	0.138766	0.028582	-0.36686	42.02	8.83	19.26	15.67	-0.05	0.38	0.210069	-0.74403	-0.61591	-0.2649	0.19143	-0.38673</								

UniProt	Protein name	Gene name	Peptide mean	08/017 hESC-RPE to hRPE										08/023 hESC-RPE to hRPE														
				Analysis					Technical replicate CV			Biological CV	Fold change (mean)	StDev	Analysis					Technical replicate CV			Biological CV	Fold change (mean)	StDev			
				1.1	1.2	2.1	2.2	3.1	3.2	1	2				3	1.1	1.2	2.1	2.2	3.1	3.2	1				2	3	
Q1HBJ4	Mitogen-activated protein kinase	MAPK1	2.75	NA	NA	0.147517	-0.26823	-1.00933	-0.71193	NA	20.24	14.52	38.58	-0.46	0.51	NA	NA	-0.25904	-0.13121	-0.91625	-0.41073	NA	6.26	24.53	21.77	-0.43	0.34	
P35580	Myosin-10	MNH10	10.17	1.357816	1.470366	0.552529	0.574781	0.442283	0.375644	5.51	1.09	3.27	40.21	0.80	0.49	1.376116	1.211269	0.285798	1.163715	0.740394	0.386223	8.07	41.75	17.27	26.61	0.86	0.46	
O69YG1	Myotrophin	DKFZp761E1322	2.67	1.041522	1.219841	1.265219	0.94369	0.620517	0.717215	8.73	15.69	4.74	17.14	0.97	0.26	1.147053	1.116579	1.24858	0.91208	0.734689	1.191025	1.49	16.42	22.18	5.35	1.06	0.20	
P06748	Nucleophosmin	NPM1	7.67	0.599781	0.343483	1.322935	0.611135	0.635892	0.643133	12.53	34.20	0.35	19.48	0.69	0.33	0.658437	0.706411	1.048766	0.292303	0.114252	0.503375	2.35	36.25	18.96	14.53	0.55	0.33	
O75475	PC4 and SFRS1-interacting protein	PSIP1	2.80	-1.58496	-1.40696	-1.37401	-1.01817	NA	-0.73951	8.71	17.35	NA	26.63	-1.22	0.34	-2.06912	-1.28216	-0.94285	NA	-0.81207	37.64	9.90	NA	28.58	-0.69	1.17	0.54	
Q02790	Peptidyl-prolyl cis-trans isomerase FKBP4	FKBP4	1.50	-0.34955	NA	NA	0.147122	NA	NA	NA	NA	NA	24.11	0.10	0.35	-0.64686	NA	NA	0.67662	NA	NA	NA	NA	NA	60.67	0.01	0.94	
Q06830	Peroxiredoxin-1	PRDX1	17.50	0.03462	0.066588	0.110187	0.35907	0.106996	0.038215	1.57	12.17	3.37	7.31	0.12	0.12	0.179438	0.234586	0.125468	0.141009	-0.30487	-0.3915	2.70	0.76	4.24	19.58	0.00	0.27	
B1AK24	Phosphoprotein enriched in astrocytes 15, isoform CRA_a	PEA15	5.17	0.49599	-1.85905	-1.6478	-1.72275	-2.40767	-1.61308	95.18	3.67	37.99	68.77	-1.46	1.00	0.564513	-0.81398	-1.20437	-0.97672	-1.70163	-1.43281	62.85	11.13	13.14	59.44	-0.93	0.80	
P34955	Pigment epithelium-derived factor	SEPRINF1	3.17	0.81571	1.024376	0.444927	0.269614	0.412975	0.251851	10.22	16.29	7.89	22.27	0.57	0.31	0.730729	0.683406	0.197634	0.607749	0.361375	0.200993	2.32	19.94	7.90	15.37	0.46	0.24	
Q02545	Protamin-A/C	LMNA	20.50	1.00854	0.455838	0.610299	0.542927	-0.31407	-0.28296	16.96	3.29	1.62	29.08	0.19	0.41	0.028853	0.188148	0.289223	0.415648	-0.19644	-0.05199	7.80	6.19	7.08	16.48	0.11	0.23	
R07337	Profilin-1	PFN1	10.00	0.757371	0.545318	0.405597	0.595168	1.437388	0.893868	10.37	9.28	26.33	26.22	0.77	0.37	0.731521	0.68738	1.107846	1.253985	1.554453	0.943521	2.16	7.14	29.93	19.82	1.04	0.33	
A0A024QZ02	Prosaposin (Variant Gaucher disease and variant metachromatic leukodystrophy), isoform CRA_b	PSAP	20.75	NA	-0.80997	NA	-0.47583	0.46595	-0.76739	NA	NA	NA	14.72	11.51	-0.63	0.18	NA	-0.78294	NA	-1.1279	-0.12431	-0.35929	NA	NA	11.49	31.76	-0.60	0.45
P49720	Proteasome subunit beta type-3	PSMB3	2.00	-0.67418	NA	-0.58205	-0.64319	NA	NA	NA	3.00	NA	3.03	-0.63	0.05	-0.51013	NA	-0.27273	-0.13647	NA	NA	NA	6.67	NA	15.00	-0.31	0.19	
P28070	Proteasome subunit beta type-4	PSMB4	2.67	-0.30218	NA	NA	0.230153	-1.10802	NA	NA	NA	NA	43.45	-0.39	0.67	1.122103	NA	NA	-0.77887	-0.08299	NA	NA	NA	NA	67.69	0.09	0.96	
Q15084	Protein disulfide-isomerase A6	PDIA6	11.33	0.975682	1.075533	0.578321	0.601958	0.943917	0.659958	4.89	1.16	13.87	15.07	0.81	0.22	0.944266	0.906229	0.374164	0.374021	0.886021	0.72019	1.86	0.01	8.12	19.04	0.70	0.26	
B2R4M6	Protein S100	S100A8	2.20	NA	-0.53341	-1.98707	-1.73938	-2.31433	-2.80467	NA	12.11	23.80	72.32	-1.88	0.85	NA	0.153897	-1.67691	-1.12734	-3.03707	-2.4691	NA	26.61	27.48	91.20	-1.63	1.24	
P05109	Protein S100-A8	S100A8	1.33	-0.73218	-0.64801	-1.5924	-1.54839	-2.52185	-2.3978	4.12	2.16	6.08	98.53	-1.57	0.79	-0.49832	0.144159	-1.4136	-1.15237	-2.75298	-2.29615	30.98	12.77	22.21	74.79	-1.33	1.08	
P04231	Protein S100-B	S100B	2.40	-0.18611	NA	0.516466	-0.13518	-0.58482	-0.57426	NA	31.42	0.52	27.79	-0.19	0.45	2.262759	NA	1.477197	1.572883	0.484047	0.675179	NA	4.69	9.26	57.98	1.31	0.76	
Q70799	Protein unc-13 homolog D	UNC13D	3.23	NA	NA	1.224058	0.248022	0.496201	NA	NA	46.09	NA	15.66	0.66	0.51	NA	NA	0.71668	0.052531	-0.23312	NA	NA	31.99	NA	31.59	0.18	0.49	
A0A024R529	Pyruvate kinase	PKM2	64.80	NA	-2.15032	-1.56313	-1.58272	-1.62802	-1.86826	NA	9.56	11.75	19.47	-1.76	0.25	NA	-2.58518	-1.72629	-1.85266	-1.65465	-1.9759	NA	6.68	15.68	28.19	-1.96	0.37	
A0A024R845	RAB14, member RAS oncogene family, isoform CRA_a	RAB14	5.67	-0.40738	-0.94854	-0.04223	0.214788	-0.1014	-0.2421	26.22	12.56	6.89	25.01	-0.25	0.40	-1.03011	-0.68651	-1.13049	0.078574	-0.15737	-0.71399	16.76	10.23	26.95	28.10	-0.44	0.43	
O9H0U4	Ras-related protein Rab-1B	RAB1B	6.80	-1.39232	NA	-0.18197	-0.75087	-0.29225	0.036975	NA	27.53	16.07	40.41	-0.52	0.57	-0.34101	NA	-0.81923	-0.67732	-1.10929	-0.44209	NA	6.95	32.13	16.72	-0.68	0.30	
P51149	Ras-related protein Rab-7a	RAB7A	7.83	0.421519	-0.15053	0.05206	-0.02379	0.85258	0.739988	27.68	3.72	5.52	30.42	0.32	0.42	0.344193	-0.10273	-0.483	-0.39989	-0.0303	-0.24147	21.73	40.7	10.33	19.84	-0.15	0.31	
O5JR08	Rho-related GTP-binding protein RhoC (Fragment)	RHOC	3.67	NA	NA	-0.55649	0.553664	NA	-0.13579	NA	51.87	NA	11.67	-0.05	0.56	NA	NA	0.047787	0.277389	NA	0.116062	NA	11.23	NA	2.50	0.15	0.12	
A0A024CYX3	RNA binding motif (RNP1, RRM) protein 3, isoform CRA_c	RBM3	1.00	0.146797	NA	NA	NA	-1.5667	-1.89115	NA	NA	15.84	80.55	-1.10	1.10	-0.49647	NA	NA	-0.73979	-1.88216	NA	NA	53.24	NA	33.85	-1.04	0.74	
O9Y230	RuvB-like 2	RUVBL2	2.33	NA	0.890191	1.024833	-0.45184	NA	NA	NA	66.66	NA	20.56	0.49	0.82	NA	0.987496	0.807102	-0.2272	NA	NA	NA	48.63	NA	29.31	0.52	0.66	
Q6IRT1	S-(hydroxymethyl)glutathione dehydrogenase	ADH5	5.67	0.391821	0.005495	0.008193	0.311853	0.489246	0.218593	18.82	14.83	13.23	7.09	0.24	0.20	0.773017	0.20965	-0.02193	0.194032	-0.05801	0.399431	27.27	10.57	22.23	16.04	0.25	0.31	
P16615	Sarcoplasmic/endoplasmic reticulum calcium ATPase 2	ATP2A2	6.40	0.197116	0.484342	0.173602	0.011165	NA	-0.2066	14.03	7.95	NA	18.99	0.13	0.25	0.45975	0.527341	0.125932	-0.16306	NA	-0.00784	3.31	14.12	NA	21.17	0.19	0.30	
P62136	Serine/threonine-protein phosphatase PP1-alpha catalytic subunit	PPP1CA	3.20	0.190577	0.014731	0.765987	0.362765	NA	0.795598	8.61	19.64	NA	23.27	0.43	0.35	0.650781	0.342104	0.620704	-0.93408	NA	0.372997	15.07	69.67	NA	15.91	0.21	0.66	
Q13813	Spectrin alpha chain, non-erythrocytic 1	SPTAN1	53.83	-0.32691	-0.4504	-0.34477	-0.34217	-0.58168	-0.44763	6.05	0.13	6.57	6.02	-0.42	0.10	-0.40921	-0.41335	-0.42514	-0.27984	-0.64395	-0.41843	0.20	3.20	11.03	7.42	-0.42	0.40	
Q15020	Spectrin beta chain, non-erythrocytic 2	SPTBN2	7.17	0.689786	0.326325	0.678602	1.423463	0.228302	0.513301	17.72	35.73	13.92	27.85	0.64	0.42	0.787308	0.742157	1.53737	2.324298	-0.66314	0.60428	2.21	37.64	58.41	67.53	0.89	1.00	
P63208	S-phase kinase-associated protein 1	SKP1	4.83	-0.14831	-0.21274	0.984276	0.980363	-0.19016	-0.07171	3.16	0.19	5.80	49.48	0.22	0.59	0.076803	-0.2835	0.936496	1.191935	-0.33376	0.411393	17.57	12.49	35.73	46.67	0.33	0.63	
O9UJZ1	Stomatin-like protein 2, mitochondrial	STOML2	5.33	NA	NA	-0.22098	-0.06318	0.549418	NA	NA	7.73	NA	33.16	0.09	0.41	NA	NA	-0.37502	-0.83764	0.726465	NA	NA	22.48	NA	60.30	-0.16	0.80	
Q14683	Structural maintenance of chromosomes protein 1A	SMC1A	1.00	1.590398	NA	NA	1.520956	NA	NA	NA	NA	NA	3.40	1.56	0.05	1.219604	NA	NA	0.950977	NA	NA	NA	NA	NA	NA	13.13	1.09	0.19
A0A024DFU2	Superoxide dismutase	SOD2	6.00	-0.1575	0.02017	-1.38021	-1.20002	-0.46267	-0.31196	8.70	8.82	7.38	39.00	-0.58	0.57	-0.02319	0.074507	-0.88548	-0.82105	0.283158	0.32242	4.79	3.16	1.92	37.16	-0.17	0.54	
V9WH99	Superoxide dismutase [Cu-Zn]	SOD1	11.50	0.258467	0.121539	0.578143	0.378871	0.575074	0.631229	6.71	9.75	2.75	14.23	0.42	0.21	0.207984	0.254489	0.36122	0.341927	0.327665	0.448422	2.28	0.95	5.92	5.64	0.32	0.08	
O9Y490	Talin-1	TLN1	12.67	0.72129	1.513624	0.949289	1.809034	0.997622	1.045696	37.89	40.93	2.36	15.03	1.17	0.41	0.899862	0.565002	1.529835	1.094343	1.168056	2.76	45.60	3.61	7.85	1.04	0.32		
O95881	Thioredoxin domain-containing protein 12	TXNDC12	1.00	-0.10575	NA	-0.0168	NA	NA	NA	NA	NA	NA	4.36	-0.06	0.06	-0.94412	NA	-0.61475	NA	NA	NA	NA	NA	NA	16.07	-0.78	0.23	
P30048	Thioredoxin-dependent peroxidase reductase, mitochondrial	PRDX3	7.00	0.018969	0.552922	-0.3699	-0.44285	-0.01949	0.460563	25.88	3.57	23.31	25.02	0.03	0.41	0.257033	0.357665	-0.47102	-0.53706	-0.1736	0.363605	4.93	3.24	26.03	27.18	-0.03	0.41	
O9H3N1	Thioredoxin-related transmembrane protein 1	TMX1	1.50	NA	-0.99129	-1.80934	NA	NA	NA	NA	NA	NA	39.05	-1.40	0.58	NA	-0.33955	-1.90335	NA	NA	NA	NA	NA	NA	69.93	-1.12	1.11	
P68366	Tubulin alpha-4A chain	TUBA4A	38.00	-1.32715	-1	-0.75421	-0.2128	-1.78633	-1.73904	15.97	26.23	2.32	44.74	-1.14	0.61	-1.45713	-1.18026	-0.12998	-0.45833	-1.07534	-1.64373	13.53	14.43	27.08	44.07	-0.99	1.12	
O9UM54	Unconventional myosin-VI	MYO6	1.50	NA	NA	-0.63828	-1.10964	-0.96499	-1.16989	NA	22.																	

Supplementary Table S6. The 189 cytoskeletal proteins presented in Figure 4c. Differences in expression for both hESC-RPE lines compared to hRPE presented on log2 scale.

Mean number of peptides used for quantification, fold change value for each replicate analysis, technical replicate CV, biological replicate CV, mean fold change, and standard deviation shown for each protein. Note! CV values are calculated using normal scale, not the log2 scale shown here.

Differentially expressed proteins (>2-fold difference in expression i.e. values >1 and <-1 on log2 scale) marked with red color for upregulation and green color for downregulation.

UniProt	Protein name	Gene name	Peptide mean	08/017 hESC-RPE to hRPE												08/023 hESC-RPE to hRPE												
				Analysis						Technical replicate CV			Biological CV	Fold change (mean)	StDev	Analysis						Technical replicate CV			Biological CV	Fold change (mean)	StDev	
				1.1	1.2	2.1	2.2	3.1	3.2	1	2	3				1.1	1.2	2.1	2.2	3.1	3.2	1	2	3				
P62280	40S ribosomal protein S11	RPS11	2.20	0.591836	0.393619	NA	0.629826	1.177416	1.003177	9	70	NA	8.53	22.62	0.76	0.32	0.894567	0.865083	0.611458	0.746899	1.271212	3.67	1.09	5.84	15.28	0.73	0.21	
P42532	40S ribosomal protein S12	RPS12	5.00	0.486186	0.343333	0.58767	0.573719	1.751044	1.12715	7.99	123	35.81	12.31	0.81	0.25	0.926519	0.858199	0.611458	0.746899	1.271212	3.67	1.09	5.84	15.28	0.73	0.21		
JKMK5	40S ribosomal protein S13	RPS13	2.00	0.12123	NA	NA	NA	NA	NA	NA	NA	NA	52.02	0.44	0.79	0.89399	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.90	0.01	1.26
P08708	40S ribosomal protein S17	RPS17	2.67	1.938882	0.249255	0.234346	0.155194	0.512503	-0.62458	74.48	3.88	53.13	52.47	0.47	0.84	1.06611	0.031603	-0.34707	-0.05504	0.053981	-1.23641	48.40	14.26	59.34	41.73	-0.08	0.74	
P62269	40S ribosomal protein S18	RPS18	2.00	-0.26457	-1.09899	0.46978	0.432207	0.246209	0.454387	79.79	1.84	10.19	35.61	0.04	0.62	-0.02141	-0.75032	0.44447	-0.564888	0.357991	0.214372	34.98	5.90	7.03	28.73	0.10	0.48	
P08666	40S ribosomal protein S20	RPS20	2.60	0.359965	NA	0.648144	0.255992	0.841701	1.048022	NA	19.10	10.20	22.77	0.63	0.33	0.962597	NA	0.741564	0.703988	0.800753	0.23125	NA	1.84	27.56	14.67	0.69	0.27	
Q8WVWC2	40S ribosomal protein S21	RPS21	1.83	0.303983	0.199486	0.864774	0.987162	0.709803	0.2586	5.12	5.99	21.94	24.15	0.55	0.34	0.601665	0.982709	1.213872	1.143639	-0.00083	0.556749	18.57	3.44	26.99	29.43	0.75	0.46	
P23396	40S ribosomal protein S23	RPS23	5.50	0.368071	0.286259	0.250701	0.427314	0.435787	0.705996	4.01	8.65	13.21	9.97	0.41	0.36	0.309782	0.47424	0.295315	0.285072	0.533677	0.559221	8.05	5.00	1.25	9.00	0.41	0.13	
Q6NXR8	40S ribosomal protein S3a	RPS3a	4.17	-0.03971	-0.53039	0.035807	-0.14302	0.38145	0.566854	23.82	8.72	9.07	27.49	0.05	0.39	-0.00022	0.149334	0.473739	0.112115	0.301995	0.438661	7.32	17.63	6.72	10.44	0.25	0.13	
Q96DV6	40S ribosomal protein S6	RPS6	1.75	NA	NA	1.252037	-0.584545	0.421141	1.052995	NA	78.67	30.48	7.71	0.54	0.81	NA	NA	1.132641	0.035889	0.60882	0.753326	NA	51.31	7.08	0.16	0.63	0.46	
Q5R9W9	40S ribosomal protein S7	RPS7	3.17	0.091152	0.46638	0.329905	0.611825	-0.26025	-0.17403	27.93	13.78	4.22	28.55	0.02	0.41	0.200757	-0.28108	-0.20379	0.264212	0.421125	0.547111	23.40	22.34	6.17	19.84	0.16	0.33	
Q5R9P5	40S ribosomal protein S8	RPS8	5.00	0.738264	NA	0.419356	0.710981	0.440533	NA	NA	14.24	NA	10.39	0.58	0.17	0.95719	NA	0.295728	0.476604	0.618951	NA	8.85	NA	19.56	0.60	0.28		
Q9YK3	40S ribosomal protein SA (Fragment)	RPSA	4.17	0.896578	0.719818	0.55974	0.970719	0.250986	0.433714	8.65	20.31	71.89	28.11	0.94	0.57	0.610733	0.6856	0.470115	0.852253	0.183669	0.455309	3.67	18.53	62.07	26.62	0.81	0.51	
AAO487WV22	60S ribosomal protein L10	RPL10	1.33	NA	0.427324	0.96621	0.672463	NA	NA	NA	14.35	NA	19.46	0.69	0.28	NA	0.121043	0.107016	0.522827	NA	NA	NA	26.50	NA	33.71	0.57	0.48	
P62906	60S ribosomal protein L10a	RPL10A	2.40	-0.26268	0.10469	0.119976	NA	0.518329	0.433295	17.91	NA	4.17	19.58	0.18	0.31	-0.06751	0.378664	0.264889	NA	0.507588	0.517354	21.70	NA	0.48	12.85	0.32	0.24	
P30050	60S ribosomal protein L12	RPL12	3.40	0.537945	0.631411	0.876083	0.639673	0.91099	NA	4.58	11.56	NA	11.22	0.72	0.16	0.624728	0.638673	0.799125	0.89291	0.447445	NA	0.68	4.60	NA	13.49	0.68	0.17	
AK8AC8	60S ribosomal protein L13	RPL13	3.25	NA	NA	0.90383	0.336699	0.649858	0.22888	NA	27.44	20.49	9.46	0.53	0.31	NA	NA	0.620319	0.211791	-0.18132	0.432963	NA	19.02	29.66	12.80	0.27	0.34	
MOR3D6	60S ribosomal protein L18a (Fragment)	RPL18A	1.00	NA	NA	NA	1.449878	NA	-0.08065	NA	NA	NA	68.69	0.68	1.08	NA	NA	0.966041	NA	0.663061	NA	NA	NA	NA	14.80	0.81	0.21	
K7ELC7	60S ribosomal protein L27 (Fragment)	RPL27	1.20	0.5154	0.220493	NA	1.613655	1.183829	0.682852	14.40	NA	24.31	42.82	0.64	0.55	0.569247	0.554753	NA	1.349275	1.09415	0.712763	0.71	NA	18.58	27.44	0.86	0.35	
ESBRW9	60S ribosomal protein L30 (Fragment)	RPL30	2.00	0.4835	NA	-0.223656	0.521226	-0.27253	0.635784	NA	37.66	44.30	0.52	0.52	0.24718	NA	0.094042	NA	0.858003	0.355428	NA	32.81	53.74	0.84	0.01	0.49		
P18077	60S ribosomal protein L35a	RPL35A	1.00	0.47107	NA	-0.1329	0.485264	NA	NA	NA	29.75	NA	12.81	0.27	0.35	0.522113	NA	0.371232	0.563522	NA	0.41	NA	NA	NA	2.53	0.49	0.10	
Q9HBB3	60S ribosomal protein L6	NA	1.25	0.761558	NA	1.442441	NA	0.100361	1.024177	NA	NA	43.79	31.95	0.83	0.56	0.525466	NA	1.76036	NA	0.153078	0.859099	NA	NA	33.93	53.33	0.82	0.69	
EP9KZ0	60S ribosomal protein L8 (Fragment)	RPL8	1.00	NA	NA	1.567273	-0.31174	NA	1.1219	NA	80.96	NA	10.16	0.97	0.98	NA	NA	1.919539	0.754972	NA	0.7198	NA	54.17	NA	35.12	1.13	0.68	
Q53207	60S ribosomal protein L9	RPL9	3.67	1.228874	0.099207	0.422901	0.42437	1.023665	0.401763	52.70	0.07	30.00	12.90	0.60	0.43	1.121398	0.318972	0.494724	0.515078	0.817863	0.315899	38.35	1.00	24.36	9.74	0.60	0.32	
Q72612	Acidic ribosomal phosphoprotein P1	ARF1	NA	2.83	NA	-0.58054	-0.64267	-0.2142	-0.30848	-0.06293	0.30021	NA	3.04	4.62	4.56	-0.07096	-0.17056	-0.30958	-0.70379	-0.26606	-0.53272	4.88	19.20	13.03	13.72	0.40	0.32	
P68032	Actin, alpha cardiac muscle 1	ACTC1	27.33	NA	NA	-0.39931	-0.05084	NA	0.366038	NA	17.00	NA	27.83	0.03	0.38	NA	NA	0.0495	0.216577	NA	0.649476	NA	8.18	NA	24.93	0.31	0.31	
AAO424R694	Actin, alpha 1, isoform CRA_a	ACTN1	13.80	1.270185	0.39116	0.626674	1.438543	0.83485	NA	41.80	38.77	NA	9.37	-0.91	0.44	1.675816	0.688611	1.133795	1.308185	1.352738	NA	46.57	8.54	NA	4.60	1.23	0.36	
P61160	Actin-related protein 1	ACTR2	1.50	1.017997	NA	NA	NA	-0.5041	NA	NA	NA	NA	68.37	1.08	0.88	1.141303	NA	NA	0.04198	NA	NA	NA	NA	NA	51.42	0.59	0.78	
Q2LE1	Actin-related protein 2/3 complex subunit 3	ARPC3	2.00	NA	NA	0.241732	NA	0.08509	1.059568	NA	NA	NA	39.19	0.47	NA	NA	0.094042	NA	0.858003	0.355428	NA	NA	24.39	25.90	0.44	0.39		
Q9NP13	AcyL-coenzyme A thioesterase 13	ACOT13	1.20	-0.35609	0.27045	-0.72019	-0.86195	-0.34561	NA	30.23	6.94	NA	26.39	-0.40	0.44	-1.12489	-0.40491	-0.47102	-0.08899	-0.07861	NA	34.48	18.82	NA	21.79	-0.43	0.43	
Q5VU08	Adducin 3 (Gamma), isoform CRA_a	ADD3	2.50	0.290365	NA	0.663788	NA	-1.12286	-1.44435	NA	NA	15.69	54.85	-0.40	1.04	0.62629	NA	-0.24278	NA	-0.99814	-0.84016	NA	NA	7.74	53.34	-0.36	0.74	
D3DUJ2	Adenylyl cyclase-associated protein	CAP1	1.83	0.132861	0.014731	-0.20043	-0.11791	-0.10245	-0.63639	5.79	4.04	25.88	14.66	-0.15	0.26	0.203995	0.010101	-0.10522	0.027	0.256922	0.034587	9.49	6.48	10.88	6.74	0.07	0.13	
P12235	ADP/ATP translocase 1	SLC25A4	14.50	-0.24764	-0.59029	-2.06035	-1.51109	-1.47486	-0.79508	16.72	26.60	32.71	45.75	-1.11	0.68	-0.25221	-0.62269	-2.33107	-1.79629	-1.32027	-0.8412	18.06	25.91	22.17	51.45	-1.20	0.77	
AAO424R303	ADP-ribosylation factor 1, isoform CRA_a	ARF1	6.00	-0.43586	NA	0.206822	0.236432	-0.55289	-1.00538	NA	1.45	22.00	35.95	-0.31	0.53	-0.43712	NA	-0.12744	0.176053	-0.31641	-0.52192	NA	14.82	10.06	19.22	-0.25	0.28	
P36405	ADP-ribosylation factor-like protein 3	ARL3	2.67	0.166224	-0.13585	NA	NA	NA	-0.40415	14.75	NA	NA	20.79	-0.12	0.29	-0.71589	-0.23238	NA	NA	NA	-0.36617	44.68	NA	NA	32.80	0.04	0.59	
Q02952	A-kinase anchor protein 12	AKAP12	5.83	-1.04377	-0.16514	-1.56313	-0.78589	-1.69751	-0.55068	41.78	37.20	53.43	22.50	-0.97	0.59	-0.54296	-0.41012	-0.86459	-0.27892	-1.33585	-1.19465	6.51	28.32	6.92	27.76	0.77	0.43	
Q14307	Alpha-actinin-4	ACTN4	22.83	0.61939	0.72029	0.608086	0.524718	0.588709	0.307041	5.29	3.73	13.76	7.61	0.56	0.14	0.75638	0.750695	0.94059	0.993424	0.73618	0.9028	0.28	2.59	8.16	7.65	0.85	0.11	
RKGN70	Alpha-centractin	ACTA1	1.00	-1.04824	-																							

UniProt	Protein name	Gene name	Peptide mean	08/107 HESC-RPE to hRPE							Technical replicate CV	Biological CV	Fold change (mean)	StDev	08/023 HESC-RPE to hRPE												
				Analysis						StDev					Analysis						StDev						
				1.1	1.2	2.1	2.2	3.1	3.2						1.1	1.2	2.1	2.2	3.1	3.2							
P35555	Fibrillin-1	FBN1	25.83	1.607747	0.988756	3.17947	1.315035	1.849868	2.22429	29.88	0.14	18.25	30.98	1.55	0.44	2.635805	2.18955	2.497953	2.681427	1.935242	2.457065	21.70	8.9	25.30	12.83	2.40	0.29
AOA087WVY8	Fibrillin-2	FBN2	2.33	NA	NA	1.394953	NA	0.369381	1.421472	NA	NA	49.40	19.75	1.06	0.40	NA	NA	2.19534	NA	0.574239	1.367344	NA	NA	37.92	55.43	1.39	0.82
P21333	FLNA	FLNA	38.83	1.279703	1.27822	1.027436	0.960179	0.79485	1.030971	0.07	3.00	11.55	13.57	1.06	0.19	1.270175	1.293218	1.508711	1.393843	1.132476	1.327719	1.13	2.79	9.55	6.91	1.31	0.21
O75369	FLNB	FLNB	9.67	0.744152	0.851052	0.808226	0.621111	0.276531	0.217864	5.24	9.16	2.88	19.38	0.59	0.27	1.025099	0.886578	0.87601	0.804938	0.521196	0.616215	6.78	3.48	5.14	16.89	0.76	0.24
Q14315	FLNC	FLNC	5.50	NA	NA	-0.06815	NA	0.737786	NA	NA	NA	38.50	3.20	0.57	NA	NA	4.50249	NA	0.636313	NA	NA	NA	9.11	5.4	0.13	0.54	0.13
Q50T53	FWP004	NA	2.20	0.230553	0.073099	NA	0.252676	0.288827	0.590042	7.71	NA	14.71	10.49	0.29	0.19	0.615604	-0.05457	NA	0.857145	0.04499	0.531346	32.27	NA	23.61	22.92	0.40	0.39
G3V4F8	Glia maturation factor beta (Fragment)	GMFB	1.00	1.044102	NA	0.758172	NA	NA	NA	NA	NA	13.97	0.90	0.20	0.615461	NA	0.32208	NA	1.162929	NA	-0.09479	NA	NA	NA	68.84	-0.86	1.02
P14136	Glycylglycyl acidase protein	GFAP	12.50	NA	NA	NA	-1.46451	NA	-0.50684	NA	NA	NA	45.29	0.99	0.68	NA	NA	NA	NA	NA	NA	-0.09479	NA	NA	68.84	-0.86	1.02
P09489	Guanine nucleotide-binding protein G(i) subunit alpha-2	GNAI2	6.80	0.539572	0.63161	0.003253	NA	-0.70068	0.159588	5.56	NA	40.96	23.59	0.15	0.32805	0.285916	0.79823	0.08189	0.961003	0.2346	0.961003	2.06	NA	49.86	18.15	0.31	0.49
B2R49R	Hsp56/2677	RPS28	1.00	-1.25235	-1.35359	0.16642	0.402997	-0.38723	NA	1.90	27.55	NA	4.21	0.55	0.75	-0.44068	-0.72315	0.777586	0.877471	0.2346	0.2346	3.94	4.89	NA	48.26	-0.45	0.25
K7EP04	Heat shock protein beta-6	HSPB6	1.00	NA	NA	1.585581	NA	0.536273	NA	NA	NA	49.28	1.06	0.74	NA	NA	0.886999	NA	-0.51513	NA	NA	NA	NA	63.78	0.19	0.99	0.99
Q7Z4W8	Heparin-binding protein Hbp15	NA	1.33	-2.23022	-1.77544	0.44116	0.784756	-0.71668	-1.56587	22.11	56.71	40.46	78.62	-0.99	1.10	0.085099	-1.8001	0.28953	0.464584	0.66677	0.207528	81.17	8.57	7.79	32.05	-0.06	0.86
P49773	Histidine triad nucleotide-binding protein 1	HINT1	2.33	0.513608	0.63496	0.498019	0.510908	0.609656	0.901908	5.94	0.28	14.28	9.42	0.61	0.15	0.564365	0.715162	0.550561	0.915295	0.397929	0.814022	7.38	17.78	20.25	4.64	0.66	0.19
O70305	Histone H9.1	H1FO	2.17	-0.220482	-2.14108	-0.46693	-0.69816	-1.0726	-1.32142	5.70	12.28	2.39	47.76	-1.25	0.69	-1.58474	-1.29022	-0.69564	-0.69477	-1.5761	-1.44209	14.39	0.04	6.56	33.18	0.76	0.49
P05556	Integrin beta-1	ITGB1	2.33	0.149462	0.28122	0.62839	0.613271	0.735134	0.260371	20.95	0.72	23.06	23.18	0.35	0.39	-0.25717	-0.68085	0.93993	0.76182	0.983781	0.133137	20.62	8.46	32.28	41.53	0.34	0.69
Q17860	Interphotoreceptor matrix proteoglycan 1	IMP1	4.80	-0.69379	-0.74267	-2.21543	-1.85193	-1.19271	NA	2.40	17.72	NA	42.04	-1.34	0.68	-0.92778	-1.02736	-1.12886	-1.89608	-0.84878	NA	4.88	10.61	NA	37.55	-0.36	0.59
HVRV63	Keratin 1	KRT1	10.00	1.715608	1.31307	0.771898	0.149976	0.42978	0.164514	19.61	30.02	12.96	49.22	1.74	0.64	1.502371	0.944861	0.32127	-0.1727	0.436944	0.774393	26.99	29.98	16.46	40.04	0.63	0.58
P13645	Keratin, type I cytoskeletal 10	KRT10	7.25	1.740799	1.755394	1.022748	0.375217	NA	NA	0.27	33.54	NA	46.37	0.26	0.66	1.111899	1.732169	0.99425	0.323492	NA	NA	29.97	32.40	NA	36.26	1.04	0.58
F0V2V9	Keratin, type I cytoskeletal 18	KRT18	6.25	1.55977	1.488204	1.219056	NA	0.695633	NA	1.08	NA	NA	27.47	1.24	0.59	1.284368	1.255689	1.182774	NA	1.205281	NA	1.41	NA	3.79	1.25	0.04	0.58
P08727	Keratin, type I cytoskeletal 19	KRT19	7.67	NA	NA	0.744948	0.760374	0.87501	NA	NA	0.76	NA	5.99	0.07	NA	NA	1.754672	1.446921	1.08121	NA	NA	15.03	NA	25.58	14.43	0.34	0.44
P05787	Keratin, type II cytoskeletal 5	KRT5	17.50	1.785737	1.388262	1.527923	1.812191	1.052638	1.506304	19.36	13.89	22.05	13.42	1.51	0.28	-1.86948	1.38205	1.605713	1.886236	0.998759	1.810548	23.67	11.52	38.77	10.76	1.60	0.35
J9ID07	Lamin B2, isoform CRA_a	LMNB2	13.67	-0.50932	-0.53506	-0.10327	0.191772	-0.05943	-0.35669	1.26	6.03	33.78	23.67	-0.42	0.38	-0.68123	-0.40166	-0.19449	-0.00126	-0.59128	-0.18488	13.66	9.46	19.79	15.69	-0.34	0.26
P20700	Lamin-B1	LMNB1	10.67	-0.35836	-0.17389	0.392936	0.358453	-0.75509	0.954853	9.03	1.69	75.20	22.90	0.07	0.62	-0.46588	-0.07068	0.332145	0.106735	-0.98376	-0.19245	19.25	16.50	37.84	16.50	-0.30	0.26
V9HWF2	Malate dehydrogenase	MDH1	8.83	-0.59177	-0.42545	-0.51272	-0.20123	-0.67167	-0.4262	8.14	15.21	11.20	7.53	-0.47	0.16	-0.75771	-0.56711	-0.45671	-0.32907	-0.70259	-0.46791	9.33	6.25	12.35	9.80	-0.55	0.17
AOA024R407	Microtubule-associated protein	MAP2	5.00	-1.06791	-0.55947	0.639152	0.50609	-0.70364	-0.26858	24.67	6.52	21.26	52.68	-0.24	0.68	-0.99694	-0.46899	1.229713	0.158072	-0.87244	-0.23641	25.59	50.24	30.68	61.45	-0.20	0.82
ETVA90	Microtubule-associated protein	MAP4	3.83	-0.47445	-0.1628	-0.27929	-0.77819	0.270633	-1.40116	15.22	24.21	73.85	7.28	-0.47	0.57	-0.37897	-0.28994	0.057304	-1.17498	0.253805	-0.42216	4.39	56.98	32.75	14.40	-0.32	0.49
AOA024R4M4	Mitochondrial ribosomal protein 1B, isoform CRA_b	MAR1B	24.67	-0.24042	-0.20874	-0.79144	-0.52325	-0.4541	-0.4207	3.94	12.42	13.45	14.40	-0.41	0.23	-0.44068	-0.65599	0.125922	-0.8095	-0.18978	-0.15478	10.53	0.69	1.72	22.24	0.21	0.49
O9H936	Mitochondrial ribosomal carrier 1	SLC25A22	3.00	NA	NA	-1.9095	-0.31446	-0.55883	NA	NA	11.95	NA	66.71	-0.93	0.86	NA	1.69078	-1.11015	-0.64553	NA	NA	26.00	NA	40.17	-1.35	0.54	0.54
Q1HBJ4	Mitogen-activated protein kinase	MAPK1	2.75	NA	NA	0.147517	-0.26823	-1.00933	-0.71193	NA	20.24	14.52	35.58	-0.46	0.51	NA	NA	-0.25904	-0.13121	-0.91625	-0.137073	NA	6.26	24.53	21.77	-0.43	0.34
P25189	Myelin protein P0	MPZ	3.00	-0.6887	-1.00038	NA	NA	-2.52587	-1.89535	15.22	NA	30.42	61.34	-1.53	0.84	-0.70104	-1.13359	NA	-2.66117	-0.91763	21.04	NA	34.74	61.86	-1.61	0.87	0.81
J3QR53	Myosin regulatory light chain 12A	MYL12A	7.33	0.364712	0.582429	0.194135	0.322855	-0.05797	0.722278	10.65	6.30	37.34	7.53	0.35	0.28	0.701788	0.784989	0.803627	0.912616	0.740889	1.324033	4.08	5.34	28.21	11.30	0.88	0.23
AOA024R1N1	Myosin, heavy polypeptide 9, non-muscle, isoform CRA_a	MYH9	23.00	0.80772	1.391883	1.00278	0.681532	0.289513	0.159967	28.25	15.68	63.35	29.87	0.72	0.46	0.716398	1.117806	1.524849	1.114448	1.249635	0.980167	33.76	19.98	13.17	8.97	1.16	0.39
P35580	Myosin-10	MYH10	10.17	1.357816	1.470366	0.552529	0.574781	0.442283	0.37564	5.51	1.09	3.27	40.21	0.80	0.49	1.376116	1.211269	0.285798	1.163715	0.740394	0.386223	8.07	41.75	17.27	26.61	0.86	0.46
Q7Z406	Myosin-14	MYH14	5.50	NA	0.143703	NA	NA	0.929604	NA	NA	NA	37.59	5.04	0.56	NA	1.23256	0.305492	0.681272	0.461468	0.461468	NA	NA	NA	20.19	5.54	0.29	0.29
Q14745	Naj(J)/H(+)-exchange regulatory cofactor NHE-RF1	SLC9A3R1	4.82	1.385279	1.86852	1.280794	1.40678	1.6048	1.42337	23.47	6.11	1.82	10.85	1.47	0.20	1.407596	1.91543	1.841261	1.905157	1.435722	1.267986	24.64	3.13	8.21	17.71	1.63	0.29
Q09646	Neuroblast differentiation-associated protein AHNAK	AHNAK	21.50	0.40732	0.2145	0.17597	0.14069	0.45617	-0.53056	5.19	1.73	6.44	16.80	-0.29	0.24	0.058043	0.1892	0.64274	0.7941	-0.0797	0.08045	9.68	6.31	0.66	0.21	0.41	
Q9LNNZ	NSL1 cofactor p47	NSL1C	9.50	0.714109	1.293634	NA	1.21656	1.243448	28.03	NA	10.66	14.50	1.16	0.31	0.952325	1.465967	NA	NA	0.800515	1.123944	24.87	NA	15.78	12.76	1.09	0.29	0.29
P06748	Nucleophosmin	NPM1	7.67	0.599781	0.343483	1.322935	0.611135	0.635892	0.641333	12.53	34.20	0.35	19.48	0.69	0.33	0.658											

UniProt	Protein name	Gene name	Peptide mean	08/017 hESC-RPE to hRPE										08/023 hESC-RPE to hRPE													
				Analysis						Technical replicate CV			Biological CV	Fold change (mean)	StDev	Analysis						Technical replicate CV			Biological CV	Fold change (mean)	StDev
				1.1	1.2	2.1	2.2	3.1	3.2	1	2	3				1.1	1.2	2.1	2.2	3.1	3.2	1	2	3			
O9UM54	Unconventional myosin-VI	MYO6	1.50	NA	NA	-0.63828	-1.10964	-0.96499	-1.16989	NA	22.90	10.03	10.23	-0.97	0.24	NA	NA	-0.7018	-0.72324	-0.47061	-1.6434	NA	1.05	54.51	11.18	-0.88	0.52
Q9PQL0	Vesicle-associated membrane protein-associated protein A	VAPA	2.67	0.310029	-0.13648	NA	-0.27619	NA	NA	21.71	NA	NA	18.53	-0.03	0.31	0.502449	-0.19684	NA	0.089762	NA	NA	33.62	NA	NA	5.14	0.13	0.35

Supplementary Table S7. The 83 proliferation and cell cycle proteins presented in Figure 4d. Differences in expression for both hESC-RPE lines compared to hRPE presented on log2 scale. Mean number of peptides used for quantification, fold change value for each replicate analysis, technical replicate CV, biological replicate CV, mean fold change, and standard deviation shown for each protein. Note! CV values are calculated using normal scale, not the log2 scale shown here. Differentially expressed proteins (>2-fold difference in expression i.e. values >1 and <-1 on log2 scale) marked with red color for upregulation and green color for downregulation.

UniProt	Protein name	Gene name	Peptide mean	08/017 hESC-RPE to hRPE											08/023 hESC-RPE to hRPE													
				Analysis						Technical replicate CV			Biological CV	Fold change (mean)	StDev	Analysis						Technical replicate CV			Biological CV	Fold change (mean)	StDev	
				1.1	1.2	2.1	2.2	3.1	3.2	1	2	3				1.1	1.2	2.1	2.2	3.1	3.2	1	2	3				
P61981	14-3-3 protein gamma	YWHAG	8.67	-0.27002	-0.57918	0.147277	-0.10255	-1.99226	-2.10735	15.10	12.21	5.64	58.92	-0.82	0.98	-0.01542	-0.1718	0.166406	-0.04407	-0.27404	-0.74559	7.66	10.30	22.91	18.99	-0.18	0.31	
P35998	26S protease regulatory subunit 7	PSMC2	2.67	0.382338	-0.523	1.035475	2.071931	0.280219	0.490949	42.97	48.72	10.31	63.42	0.62	0.87	-0.23431	0.04063	1.255168	1.070065	-0.00165	1.094688	13.43	9.06	51.30	41.19	0.54	0.67	
P62195	26S protease regulatory subunit 8	PSMC5	2.33	0.38445	-0.12236	NA	NA	-0.22928	NA	24.59	NA	NA	18.64	0.01	0.33	0.535922	-0.08136	NA	NA	0.062322	NA	29.80	NA	NA	9.68	-0.17	0.56	
O00231	26S proteasome non-ATPase regulatory subunit 11	PSMD11	3.00	NA	NA	NA	0.408966	0.075238	NA	NA	NA	NA	16.28	0.24	0.24	NA	NA	NA	-0.57904	0.219761	NA	NA	NA	NA	38.18	-0.18	0.32	
O00487	26S proteasome non-ATPase regulatory subunit 14	PSMD14	1.50	NA	NA	NA	0.098951	0.660863	NA	NA	NA	NA	27.20	0.38	0.40	NA	NA	NA	0.137572	1.448961	NA	NA	NA	NA	60.19	0.79	0.93	
P23396	40S ribosomal protein S3	RPS3	5.50	0.368071	0.286259	0.250701	0.427314	0.435787	0.705996	4.01	8.65	13.21	9.97	0.41	0.16	0.309782	0.47424	0.295315	0.285072	0.533677	0.559221	8.05	0.50	1.25	9.00	0.47	0.13	
P61160	Actin-related protein 2	ACTR2	1.50	1.017997	NA	NA	NA	-0.5041	NA	NA	NA	NA	68.37	0.26	1.08	1.141303	NA	NA	NA	0.04198	NA	NA	NA	NA	51.42	0.59	0.78	
O6FGX9	Adenylylation kinase isoenzyme 1	AK1	5.67	-0.40738	-0.06226	-0.04141	-0.85812	-0.77936	-0.87628	16.84	38.99	4.75	20.51	-0.50	0.39	-0.2338	0.138164	-0.19652	-0.73663	-0.47176	-0.95874	18.13	26.17	23.64	23.46	-0.41	0.40	
P36405	ADP-ribosylation factor-like protein 3	ARL3	2.67	0.166224	-0.13585	NA	NA	NA	-0.40415	14.75	NA	NA	20.79	-0.12	0.29	0.711589	-0.23238	NA	NA	NA	-0.36617	44.68	NA	NA	32.80	0.04	0.59	
O5TZ29	Annexin	ANXA1	12.67	0.454789	0.563415	-0.19253	-0.46524	-0.71576	-0.50624	5.32	13.33	10.25	42.52	-0.14	0.53	0.193686	0.344362	0.56637	0.372852	0.310761	0.399269	7.38	9.47	4.34	7.06	0.36	0.12	
O5TZP7	APXN1 nuclease (Multifunctional DNA repair enzyme) 1	APXN1	5.80	-0.68237	-0.72939	0.529209	NA	-0.90827	-1.00737	2.30	NA	NA	4.86	-0.56	0.62	-0.17572	-0.60851	0.106231	NA	-0.99566	-0.74165	5.25	NA	12.42	77.47	-0.41	0.81	
AOA024R3E3	Apolipoprotein A-I, isoform CRA_a	APOA1	2.33	2.671177	2.311736	1.794767	2.021072	0.964211	0.421314	15.50	11.07	26.30	53.97	1.69	0.84	2.171774	2.231446	1.251878	1.297959	2.388172	1.718489	2.92	2.26	30.22	30.95	-1.83	0.48	
P02649	Apolipoprotein E	APOE	2.40	NA	0.463017	-0.40071	-0.26982	-0.76788	-0.13068	NA	6.41	30.73	36.02	-0.22	0.45	NA	0.988607	1.12512	-0.52104	-0.22391	0.423736	NA	72.94	31.22	29.63	0.36	0.72	
AOA024RA11	ARPP3 actin-related protein 3 homolog (Yeast), isoform CRA_a	ACTR3	3.80	0.5114	0.212651	0.379959	0.579905	NA	0.387248	14.59	9.78	NA	4.29	0.41	0.14	-0.17497	0.825219	0.219909	0.381401	NA	1.021042	47.15	7.95	NA	28.40	0.46	0.48	
Q12797	Asparaginyl-beta-D-glucosylase	ASBP	4.6	0.57878	-0.62675	-0.11098	-0.38078	0.22013	-1.06416	2.35	13.19	7.05	25.70	-0.61	0.35	-0.05403	-0.5632	-0.21999	-0.57904	-0.36831	0.2476	7.07	6.03	7.77	0.42	0.19		
O5SU16	Beta 5-tubulin	TUBB5	51.33	0.363029	0.400538	0.549916	0.763949	-0.2626	-0.1428	1.84	10.62	5.87	28.61	0.28	0.40	0.079708	0.279032	0.698238	0.975697	-0.239164	0.403484	9.75	13.56	8.05	25.25	0.45	0.33	
V9WH88	Calreticulin, isoform CRA_b	CALR	20.17	0.842497	1.10416	0.762397	1.06445	0.940425	0.90047	12.79	14.75	1.96	2.35	0.94	0.13	0.906891	1.199803	0.707256	0.71664	0.239302	1.067036	14.31	3.40	11.69	11.01	0.91	0.19	
P21964	Catalase O-methyltransferase	COMT	4.17	-0.00296	-0.03516	0.291553	0.388972	0.124156	-0.58928	1.58	4.77	34.27	19.24	0.03	0.34	-0.54076	0.341408	0.393751	0.321676	-0.43663	-0.6281	9.76	3.53	9.37	32.82	0.09	0.49	
O6FHM9	Cd59 antigen, complement regulatory protein, isoform CRA_b	CDS5	2.00	0.87849	NA	NA	NA	0.16464	NA	NA	NA	NA	14.29	0.52	0.50	-0.68866	NA	NA	NA	0.942564	NA	NA	NA	12.41	0.82	0.18	0.48	
P41208	Centrin-2	CENT2	1.25	-0.96596	-0.40696	-0.42826	NA	0.211498	NA	27.06	NA	NA	32.76	-0.40	0.48	0.234487	-0.09189	0.537021	NA	0.438166	NA	15.93	NA	15.93	0.28	0.28		
O5SR73	Chloride intracellular channel protein	CLIC1	2.33	0.201574	0.197998	0.170543	0.032458	0.856059	-0.08125	0.18	6.76	44.39	13.18	0.23	0.33	-0.03302	0.18078	-0.03743	0.131596	0.593555	0.303289	10.46	8.27	14.18	16.35	0.19	0.24	
P10909	Clustrin	CLU	3.00	0.022462	-0.04884	0.232993	0.836901	-0.18857	NA	3.49	29.17	NA	28.71	0.17	0.40	0.253361	-0.55314	0.110103	0.807679	-0.10179	NA	38.53	33.50	NA	23.47	-0.12	0.49	
O75367	Core histone macro-H2A.1	H2AFY	6.67	-0.36798	-0.6498	0.234346	-0.10396	-0.27523	-0.39	13.77	16.51	5.62	21.80	-0.26	0.30	-0.30375	-0.38142	0.720371	-0.00835	-0.29936	-0.37114	3.81	34.98	5.48	31.17	0.10	0.42	
Q14204	Cytoplasmic dynein 1 heavy chain 1	DYNC1H1	19.83	-0.0077	0.604321	-0.38124	1.450071	0.06592	0.415921	29.55	79.38	17.07	21.84	0.36	0.64	-0.00791	0.922597	-0.80192	1.248047	0.365554	0.335884	44.09	86.40	1.45	7.69	0.34	0.72	
P78527	DNA-dependent protein kinase catalytic subunit	PKCK6	6.50	-0.64218	0.24184	0.319222	0.138766	0.028582	-0.36686	42.02	8.93	17.67	15.67	0.05	0.38	0.210069	-0.74403	-0.61991	-0.2649	0.19143	-0.38673	45.13	17.12	27.96	12.46	-0.27	0.40	
P13639	Elongation factor 2	EEF2	13.67	0.923397	1.02176	0.157294	0.676922	0.698563	1.171199	4.82	25.20	22.96	19.56	0.77	0.36	1.022826	1.130535	0.91886	0.720622	0.88423	1.240613	5.28	25.63	17.38	22.00	0.87	0.38	
V9HW22	Epididymis luminal protein 33	HSPAB	35.50	-0.11382	-0.19134	0.292852	0.243798	0.001188	0.037939	3.80	2.40	1.80	14.81	0.05	0.19	-0.14317	-0.14159	0.324818	0.431743	-0.16732	-0.16578	0.08	4.38	0.08	22.86	0.03	0.28	
V9HW58	Epididymis secretory protein Li 77	DCTN2	4.20	0.239584	0.346322	0.111169	-0.64484	-0.46691	NA	5.23	36.23	NA	27.75	-0.08	0.44	-0.18515	-0.26882	-0.22729	-0.14481	-0.40645	NA	4.10	4.04	NA	7.98	-0.25	0.10	
P63241	Eukaryotic translation initiation factor 5A-1	EIF5A	4.83	-0.60968	-1.78588	0.27872	-0.239	-1.22535	-0.63705	54.65	25.11	28.44	44.03	0.70	0.73	-0.59232	-0.10273	0.372797	0.165066	-0.16918	-0.09595	23.77	10.16	5.37	21.53	-0.06	0.33	
Q16658	Fascin	FSCN1	2.75	0.970167	NA	-0.15663	0.064324	-0.22225	NA	NA	10.81	NA	47.99	0.16	0.55	0.165243	NA	0.308862	-0.20056	0.502488	NA	NA	24.71	NA	16.09	0.19	0.30	
O15540	Fatty acid-binding protein, brain	FABP7	2.00	-0.58674	-1.20179	NA	-0.44572	-0.46575	NA	29.70	NA	NA	15.44	-0.67	0.36	-0.87739	-1.37398	NA	-0.63751	-1.11869	NA	24.10	NA	NA	19.88	-1.00	0.32	
O9UK22	F-box only protein 2	FBOX2	1.25	1.623996	NA	0.96363	0.250462	NA	0.075111	NA	34.26	NA	55.43	0.73	0.71	1.447108	NA	0.011594	-0.52285	NA	-1.09205	NA	25.90	NA	89.54	-0.60	1.09	
O6ZVX7	F-box only protein 50	NCRP1	2.33	1.517464	1.04244	1.845506	1.644994	0.70895	2.912346	23.06	9.81	99.96	28.60	1.56	0.85	2.369917	1.450086	0.052187	1.605343	0.454857	2.690511	43.58	26.78	91.87	22.82	1.60	0.83	
P21333	Flutamin A	FLU1A	38.83	1.279703	1.27822	1.027436	0.960179	0.79485	1.030971	0.07	3.30	11.55	13.57	1.06	0.19	-1.270175	1.293218	1.450871	1.392843	1.132476	1.327719	1.13	2.79	9.55	6.91	1.31	0.11	
P14136	Glial fibrillary acidic protein	GFAP	12.50	NA	NA	NA	-0.44651	NA	-0.50568	NA	NA	NA	45.29	-0.99	0.68	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	68.84	-0.86	0.39
AE1YX4	Glutamine synthase	PGC59	10.83	1.116885	-0.20791	-1.24968	-1.29362	-1.9128	0.19128	60.72	13.62	29.89	89.62	-0.85	1.12	1.009174	-1.33552	-0.79225	-1.19969	-0.90343	-1.73095	53.34	19.84	39.48	22.76	-0.63	0.96	
AOA024RZ21	Guanine nucleotide binding protein (G protein), alpha transducing activity polypeptide 1, isoform CRA_a	GNA11	25.83	-1.88085	-2.19197	-0.30732	-3.23807	-2.34241	-2.8922	15.54	9.82	26.63	37.65	-2.90	0.53	1.924003	-2.42514	-2.50833	-2.54883	-2.55407	-3.19661	24.32	1.98	30.98	23.93	-2.53	0.47	
AOA024R056	Guanine nucleotide binding protein (G protein), beta polypeptide 1, isoform CRA_a	GNB1	36.50	1.24042	NA	-0.21572	NA	NA	NA	NA	NA	NA	43.49	-1.70	0.65	-1.27165	NA	-1.9301	NA	NA	NA	NA	NA	NA	31.72	-1.60	0.47	
P04899	Guanine nucleotide-binding protein G(i) subunit alpha-2	GNAI2	6.80	0.539571	0.43619	0.323253	NA	-0.70068	0.159588	5.06	NA	40.96	23.59	0.15	0.50	0.32805	0.285916	0.015355	NA	-0.08189	0.981035	2.06	NA	49.86	18.15	0.37	0.42	
X5D945	Harvey rat sarcoma viral oncogene protein isoform A (Fragmant)	HRAS	1.00	NA	-0.07061	NA	-0.54227	NA	NA	NA	NA	NA	22.91	-0.31	0.33	NA	NA	NA	0.651962	NA	-0.10884	NA	NA	NA	NA	36.45	0.21	0.54
O5SS55	Heterochromatin protein 1-binding protein (Fragmant)	H1PIB3	4.83	-1.51297	-1.2538	-2.13756	-2.00753	-1.14556	-1.33656	12.67	6.37	9.35	28.10	-1.57	0.41	-1.48079	-1.02198	-1.40353	-1.4881	-1.705	-1.35025	22.30	4.14	17.30	10.43	-1.4		

Supplementary Table S8. Proteins involved in detection of light stimulus and selected RPE proteins shown in Figure 5. Differences in expression for both hESC-RPE lines compared to hRPE presented on log₂ scale.

Mean number of peptides used for quantification, fold change value for each replicate analysis, technical replicate CV, biological replicate CV, mean fold change, and standard deviation shown for each protein. Note! CV values are calculated using normal scale, not the log₂ scale shown here. Differentially expressed proteins (>2-fold difference in expression i.e. values >1 and <-1 on log₂ scale) marked with red color for upregulation and green color for downregulation.

Detection of light stimulus																											
UniProt	Protein name	Gene name	Peptide mean	08/017 hESC-RPE to hRPE												08/023 hESC-RPE to hRPE											
				Analysis						Technical replicate CV			Biological CV	Fold change (mean)	StDev	Analysis						Technical replicate CV			Biological CV	Fold change (mean)	StDev
				1.1	1.2	2.1	2.2	3.1	3.2	1	2	3				1.1	1.2	2.1	2.2	3.1	3.2	1	2	3			
P02489	Alpha-crystallin A chain	CRYAA	9.67	-1.10681	-1.04082	-2.43148	-2.1051	-1.53111	-1.62654	3.23	15.93	4.68	39.21	-1.84	0.55	-1.06636	-1.02826	-1.92145	-1.96239	-2.0942	-1.89525	1.87	2.01	9.83	39.66	-1.66	0.48
P02649	Apolipoprotein E	APOE	2.40	NA	0.463017	-0.49271	-0.26902	-0.76789	-0.13046	NA	6.41	39.73	36.02	-0.22	0.45	NA	0.986007	1.15512	-0.52104	-0.22931	0.423736	NA	72.94	31.22	29.63	0.36	0.72
P26575	Arrestin-3	ARR3	8.33	-0.7526	-0.91057	-0.66535	-0.49131	-0.73447	-1.23626	7.73	8.52	24.35	13.89	-0.80	0.25	-0.81477	-0.89608	-0.84173	-0.25252	-0.83433	-1.073	3.98	28.48	11.67	16.24	-0.79	0.28
AA0424RZ21	Guanine nucleotide binding protein (G protein), alpha transducing activity polypeptide 1, isoform CRA_a	GNA11	25.83	-1.88085	-2.19917	-3.03732	-3.23807	-3.24241	-2.8922	15.54	9.82	26.63	37.65	-2.40	0.53	-1.92403	-2.42514	-2.50833	-2.54883	-2.55407	-3.19661	24.32	1.98	30.98	23.93	-2.53	0.41
O52797	Guanine nucleotide binding protein (G protein), alpha transducing activity polypeptide 2	GNAI2	12.00	NA	-1.53809	-0.68951	NA	NA	NA	NA	NA	NA	40.43	-1.11	0.60	NA	-2.08697	-0.81879	NA	NA	NA	NA	NA	NA	58.44	-1.45	0.50
P63211	Guanine nucleotide-binding protein (G) subunit gamma-T1	GNGT1	7.67	-2.13723	-2.4447	-2.92436	-3.24056	-2.59344	-2.40752	15.01	15.44	9.10	26.46	-2.62	0.40	-2.36508	-2.48063	-2.70551	-3.21895	-2.83175	-2.6281	5.66	24.90	9.97	18.24	-2.71	0.30
Q17R60	Interphotoreceptor matrix proteoglycan 1	IMP1	4.80	-0.69379	-0.74267	-2.21543	-1.85193	-1.19271	NA	2.40	17.72	NA	42.04	-1.34	0.68	-0.92778	-1.02736	-2.11286	-1.89608	-0.84878	NA	4.88	10.61	NA	37.55	-1.26	0.59
P04181	Ornithine aminotransferase, mitochondrial	OAT	3.33	0.034428	0.40025	0.550178	1.888438	0.980367	0.555263	17.83	61.26	20.69	38.97	0.73	0.64	-0.22046	0.084517	0.718681	1.12038	0.546192	0.098772	14.89	19.56	21.76	35.20	0.39	0.49
P20941	Phosducin	PDC	5.00	-1.27287	-0.69365	-1.04769	-0.95804	-1.18253	NA	28.01	4.39	NA	8.17	-1.03	0.22	-1.64995	-0.68014	-0.87848	-0.98419	-0.3309	NA	45.82	5.18	NA	29.06	-0.90	0.49
Q07954	Prolow-density lipoprotein receptor-related protein 1	LRP1	2.50	0.66307	0.675935	-0.04332	0.42437	0.532895	0.159888	0.62	22.72	18.20	16.65	0.40	0.29	0.696389	0.197595	-0.02888	-0.30674	0.982944	0.239435	24.21	13.58	35.66	27.42	0.30	0.47
Q82582	Regulator of G-protein signaling-9-binding protein	RGS9BP	3.00	0.001181	-1.8708	-1.08882	-0.74026	NA	NA	90.73	17.00	NA	12.40	-0.92	0.78	-0.20068	-0.89526	NA	NA	NA	-0.28046	33.40	NA	NA	11.06	-0.46	0.38
P12271	Retinaldehyde-binding protein 1	RALBP1	19.50	-0.85143	-0.83922	-1.04934	-0.91068	-1.32655	-1.45245	0.60	6.79	6.17	18.67	-1.07	0.26	-0.8373	-0.7701	-1.1841	-1.14454	-1.13222	-0.86295	3.29	1.94	13.16	12.52	-0.99	0.18
P7B363	Retinal-specific ATP-binding cassette transporter	ABCA4	23.00	-0.59029	-0.29793	-1.20439	-1.87592	-0.25724	-2.21216	14.28	32.33	83.43	35.81	-1.07	0.83	-1.27589	-0.31303	-1.23204	-1.6753	0.170454	0.69376	45.52	21.56	41.14	40.75	-0.84	0.69
Q16518	Retinoid isomerase	RPE65	24.67	-2.31095	-2.40194	-3.02432	-2.82179	-2.6966	-2.3266	4.46	9.91	18.04	19.32	-2.60	0.30	-2.48018	-2.37398	-3.01347	-2.94966	-2.64686	-2.2344	5.20	3.13	20.08	20.64	-2.62	0.31
O8TC12	Retinol dehydrogenase 11	RDH11	4.00	-0.35634	-0.60292	-0.756	-0.72536	-0.10576	-0.1664	12.06	1.50	2.97	21.15	-0.45	0.28	-0.57655	-0.74256	-0.66522	-1.04641	-0.03792	-0.44967	8.13	18.58	20.05	22.52	-0.59	0.34
P10745	Retinol-binding protein 3	RBP3	23.67	-2.2667	-1.0768	-1.76093	-1.6656	-1.88047	-2.15628	55.22	4.67	13.48	15.74	-1.80	0.42	-2.44873	-1.2085	-1.94952	-1.54514	-1.85102	-2.31733	57.30	19.69	22.66	13.43	-1.89	0.47
O15537	Retinoschisin	RST	3.80	-0.74697	-0.54167	-1.40597	-1.05166	NA	-0.52117	10.05	17.28	NA	23.90	-0.85	0.38	-0.3272	-1.25718	-0.19362	-1.32243	NA	-0.78895	44.07	52.67	NA	4.80	-0.78	0.52
O15835	Rhodopsin kinase	GRK1	6.17	-0.7526	-0.71904	-1.15339	-0.83255	1.006629	-0.61048	1.64	15.66	71.67	55.45	-0.51	0.76	-1.13593	-0.82487	-0.90762	-1.18815	-0.82881	-0.56181	15.19	13.71	13.05	13.30	-0.91	0.23
P18499	Rod cGMP-specific 3',5'-cyclic phosphodiesterase subunit alpha	PDE6A	16.67	-1.19625	-1.05101	-1.76093	-1.49496	-0.80233	-1.02378	7.21	13.27	13.69	23.94	-1.22	0.35	-1.40282	-0.90307	-1.57236	-1.65291	-0.45239	-1.39741	24.25	3.95	44.73	25.63	-1.23	0.46
P35913	Rod cGMP-specific 3',5'-cyclic phosphodiesterase subunit beta	PDE6B	13.17	-1.48295	-1.20485	-1.79916	-1.8682	-2.15332	-1.80645	13.59	3.38	16.91	24.11	-1.72	0.33	-1.6153	-1.28323	-1.61591	-1.60376	-2.01434	-1.77057	16.20	0.60	11.92	15.33	-1.65	0.24
Q03395	Rod outer segment membrane protein 1	ROM1	6.83	-0.35609	-0.71779	-1.78174	-2.03104	-0.14047	-0.26858	17.64	12.19	6.28	50.66	-0.88	0.82	-0.5603	-0.89403	-1.90999	-2.04433	-1.56749	-0.69758	16.28	6.58	41.39	40.07	-1.28	0.64
P47804	RPE-retinal G protein-coupled receptor	RGR	6.83	-1.64711	-1.27523	-1.78265	-2.11992	-0.76124	-1.16513	18.13	16.46	19.67	33.94	-1.46	0.49	-1.55482	-1.41734	-1.64174	-2.03396	-0.59097	-0.81132	6.90	19.11	10.78	41.88	-1.34	0.54

Extracellular matrix																												
UniProt	Protein name	Gene name	Peptide mean	08/017 hESC-RPE to hRPE												08/023 hESC-RPE to hRPE												
				Analysis						Technical replicate CV			Biological CV	Fold change (mean)	StDev	Analysis						Technical replicate CV			Biological CV	Fold change (mean)	StDev	
				1.1	1.2	2.1	2.2	3.1	3.2	1	2	3				1.1	1.2	2.1	2.2	3.1	3.2	1	2	3				
P09382	Galactin-1	LGAL1	6.83	0.763182	0.70359	0.594034	0.297339	0.751501	0.874264	2.92	14.49	6.01	12.70	0.66	0.20	0.638025	0.687653	1.158265	0.737521	1.134361	1.219714	2.43	20.48	4.18	17.59	0.93	0.27	
Q08380	Galactin-3-binding protein	LGAL3BP	5.20	1.58896	1.811201	NA	0.254445	1.024296	1.362343	10.87	NA	16.49	45.92	1.21	0.61	1.008303	0.7056	NA	0.142839	0.583239	2.584213	14.78	NA	84.88	61.46	1.00	0.94	
AA0424R8T0	Integrin beta	ITGB6	2.20	1.472631	1.594171	1.434225	2.570083	NA	1.935328	5.95	52.96	NA	19.63	1.80	0.47	1.325605	1.081709	0.975238	2.058359	NA	2.515708	11.93	51.49	NA	48.50	1.59	0.67	
P05556	Integrin beta-1	ITGB1	2.33	0.149462	-0.28122	0.62839	0.613721	0.735134	0.260371	20.95	0.72	23.06	23.18	0.35	0.39	-0.25717	-0.68085	0.93993	0.76182	0.983781	0.313317	20.62	8.46	32.28	NA	41.57	0.61	0.67
P26012	Integrin beta-8	ITGB8	2.75	NA	0.56944	-0.4347	1.024704	NA	-0.2138	NA	66.00	NA	26.88	0.24	0.68	NA	0.442323	-0.43877	0.742959	NA	-0.28274	NA	54.88	NA	24.64	0.11	0.57	
L7RXH0	Integrin, alpha V	ITGAV	7.50	0.720813	0.426053	0.602438	0.157323	0.838343	0.658794	14.40	21.64	8.79	12.23	0.57	0.24	0.716264	0.766235	0.62317	0.033178	0.528812	0.463717	2.45	28.52	3.19	13.66	0.52	0.26	
Q5KNX8	Intercellular adhesion molecule 1	ICAM1	2.83	1.480483	1.705221	1.145721	0.670808	0.612402	1.237177	10.99	23.07	30.15	27.82	1.14	0.43	1.687572	2.235523	1.899533	1.475243	0.779106	1.448814	26.54	20.65	32.25	27.83	1.59	0.49	
AA0807WW04	Neural cell adhesion molecule 1	NCAM1	9.33	-1.64157	-1.37608	-1.16463	-1.99172	-1.59852	-1.40415	12.98	39.46	19.51	0.79	-1.13	0.28	-1.60994	-1.32237	-1.1156	-1.61918	-1.89111	-1.65219	15.05	24.43	9.56	15.42	-0.54	0.28	
O9Y490	Talin-1	TLM1	12.67	0.71219	1.513624	0.949289	1.809034	0.997622	1.045696	37.89	40.93	2.36	15.03	1.17	0.41	0.899862	0.95615	0.650002	1.529835	1.094343	1.168056	2.76	45.60	3.61	7.85	1.04	0.32	
D9ZGG2	Vitronectin	VTN	2.00	-0.06461	NA	-1.42221	-0.94073	NA	NA	NA	23.38	NA	51.03	-0.81	0.69	-0.07303	NA	-1.07559	-0.93318	NA	NA	NA	6.97	NA	44.05	-0.69	0.54	

Pigmentation																											
UniProt	Protein name	Gene name	Peptide mean	08/017 hESC-RPE to hRPE												08/023 hESC-RPE to hRPE											
				Analysis						Technical replicate CV			Biological CV	Fold change (mean)	StDev	Analysis						Technical replicate CV			Biological CV	Fold change (mean)	StDev
				1.1	1.2	2.1	2.2	3.1	3.2	1	2	3				1.1	1.2	2.1	2.2	3.1	3.2	1	2	3			
P17463	5,6-dihydroxyindole-2-carboxylic acid oxidase	TYRP1	5.00	1.903488	1.885831	0.852643	1.555717	0.947329	1.357277	0.87	33.79	19.96	29.37	1.42	0.45	1.238022	1.159827	0.815897	0.686062	0.527665	1.128748	3.83	6.36	29.04	16.69	0.93	0.29
P36955	Pigment epithelium-derived factor	SERPINF1	3.17	0.815571	1.024376	0.644927	0.269614	0.412975	0.25185	10.22	18.29	7.89	22.27	0.57	0.31	0.730729	0.683406	0.197634	0.607249	0.361375	2.000993	2.32	19.94	9.04	15.37	0.46	0.24

Phagocytosis																											
UniProt	Protein name	Gene name	Peptide mean	08/017 hESC-RPE to hRPE												08/023 hESC-RPE to hRPE											
				Analysis						Technical replicate CV			Biological CV	Fold change (mean)	StDev	Analysis						Technical replicate CV			Biological CV	Fold change (mean)	StDev
				1.1	1.2	2.1	2.2	3.1	3.2	1	2	3				1.1	1.2	2.1	2.2	3.1	3.2	1	2	3			
V9HW3	Cathepsin D (Lysosomal aspartyl peptidase), isoform CRA_a	CTSD	36.67	-0.49983	-0.59917	-1.03027	-1.03482	-0.13724	-0.14155	4.87	0.22	0.21	30.24	-0.57	0.40	-0.5599											