

Table SI. Proteomic analysis of lipid droplet Fraction 1. Shown are proteins associated with lipid bodies purified by sucrose gradient centrifugation from bovine RPE (Fraction 1). These were identified by MS/MS analysis of peptides resulting from in gel trypsin digestion. The table displays the general category of the protein based on its function or location, the full name of the protein, its molecular mass (kDa), GI identification number, the gene name, Mascot score, sequence coverage (%), and number of non-redundant peptides. The last column lists relevant reference numbers to studies that identified the protein in the lipid droplet fraction. The full protein analysis was done three times. All listed proteins were consistently observed in three preparations. The best Mascot score, sequence coverage, and number of assigned peptides are presented in the table.

Category	Name	Molecular mass (kDa)	GI number ¹	Gene name	Mascot score	Sequence coverage (%)	Number of assigned peptides	Ref. number
Dehydrogenase	Malate dehydrogenase	35	118572778	MDH2	407	30	9	(34,81)
Dehydrogenase	Lactate dehydrogenase B	36	154425698	LDHB	744	34	9	(81)
Dehydrogenase	Lactate dehydrogenase A	36	217592	LDHA	422	20	5	(81)
Detoxification	Glutathione S-transferase M1	25	73586890	GSTM1	1940	72	13	
Detoxification	Catalase	60	78369302	CAT	1891	58	23	(80)
ER	Calreticulin	48	19911173	CALR	327	28	8	(34,80)
ER	P63 (RPE65)	65	564	RPE65	92	8	3	
Heat shock	Heat shock protein HSP 90-alpha	85	60592792	HSP90	4962	50	33	(34)

Heat shock	Heat shock 70 kDa protein 4	95	166795319	HSPA4	677	23	13	(34)
Homeostasis	Glutamate dehydrogenase	62	74354891	GLUD1	1714	59	26	(34)
Hydrolase	Fumarylacetoacetate hydrolase (CGI-105)	34	45430009	FAHD2	194	22	5	
Hydrolase	NDRG family member 2	39	73587161	NDRG2	165	18	3	
Hydrolase	S-Adenosylhomocysteine hydrolase	48	77735583	AHCY	542	22	10	
Kinase	Pyruvate kinase	61	73587283	PKM2	588	14	4	(80)
Kinase	Creatine kinase	47	6594314	CKMT1	424	18	7	
Kinase	Phosphoglycerate kinase 1	44	77735551	PGK1	2099	84	26	
Lipid droplet	PLIN1	55	296475547	PLIN1	346	18	7	(57)
Lipid droplet	PLIN2	50	296484843	PLIN2	339	23	6	(81,82)
Lipid droplet	PLIN3	47	116004315	PLIN3	363	24	6	(81)
Lipid droplet	CGI-58	39	73921640	ABHD5	413	18	4	(65,83)
Lipid droplet	Caveolin-1	20	27806715	CAV1	164	16	3	(69,70)
Metabolism	Lysophospholipase I	24	77736321	LYPLA1	153	21	3	
Metabolism	Leukotriene B4 12-hydroxydehydrogenase	35	122140235	PTGR1	385	19	3	

Metabolism	Thiamine triphosphatase	24	27806159	THTPA	103	18	4	
Endocytosis	Alpha-2-HS-glycoprotein	38	154426172	AHSG	324	34	8	
Matrix	SPARC-like protein 1	75	77735557	SPARCL1	175	18	4	
Not determined	Transgelin 2	22	61888874	TAGLN2	242	22	4	
Redox	Peroxiredoxin 2	22	27807469	PRDX2	223	19	4	(84)
Redox	Peroxiredoxin 5 precursor	23	27807445	PRDX5	144	10	2	(84)
Signaling	Regucalcin	33	27806809	RGN	2125	69	16	
Structural	Vimentin	57	110347570	VIM	766	41	15	(84,85)
Structural	Tubulin	50	114051854	TUBA1D	657	35	10	(82,84)
Structural	Gelsolin isoform b	81	77736201	GSN	1586	34	17	
Transferase	Aspartate aminotransferase 1	46	59858077	GOT1	323	21	6	
Transport	Optineurin	65	77736151	OPTN	104	4	2	
Transport	Rab 1B	22	131803	RAB1B	60	11	2	(34,82)
Transport	Rab 35	23	146186509	RAB35	143	13	2	(80)
Transport	Rab 15	24	296482998	RAB15	182	16	2	

Transport	Rab 33B	72	262367954	RAB33B	120	10	3	
Transport	Plasma retinol-binding protein	23	164420709	RBP4	186	11	3	
Transport	Retinaldehyde-binding protein	36	234606	CRALBP	2200	57	16	
Transport	Alpha 1 acid glycoprotein	23	159895416	AGP	288	30	6	
Transport	Sterol carrier protein 2	58	74354746	SCP2	1434	23	11	(71,86)
Transport	Cellular retinoic acid-binding protein 2	16	56182498	CRABP2	291	44	7	
Transport	Fatty acid-binding protein 7	15	166897969	FABP7	680	37	4	

¹ Sequence code numbers are assigned by the National Center for Biotechnology Information.