

Supplementary Figure 1. Original immunoblot images

Figure 1a

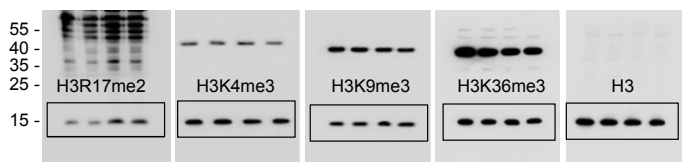


Figure 1b

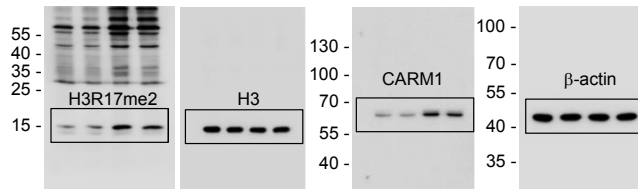


Figure 1b

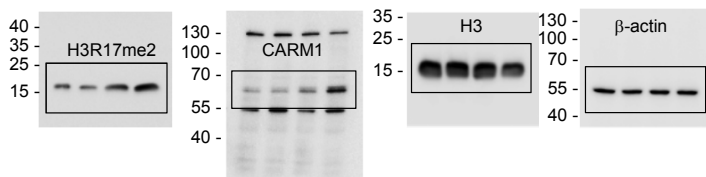


Figure 1c

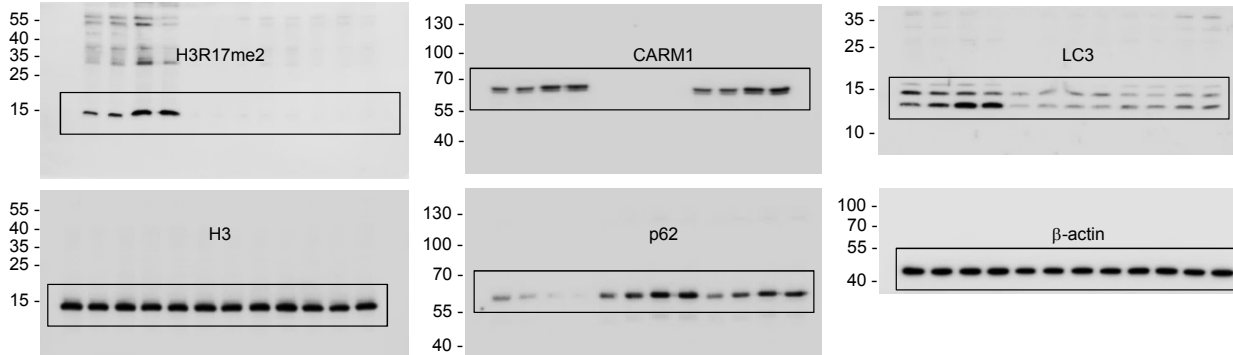


Figure 2a

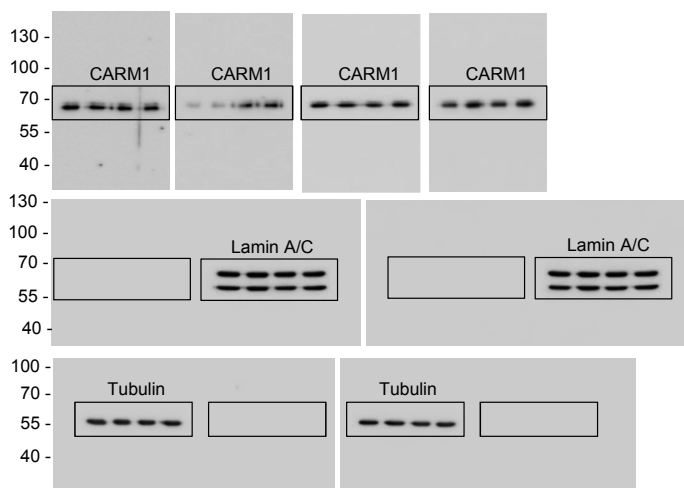


Figure 2b

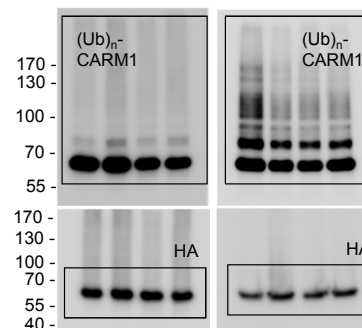
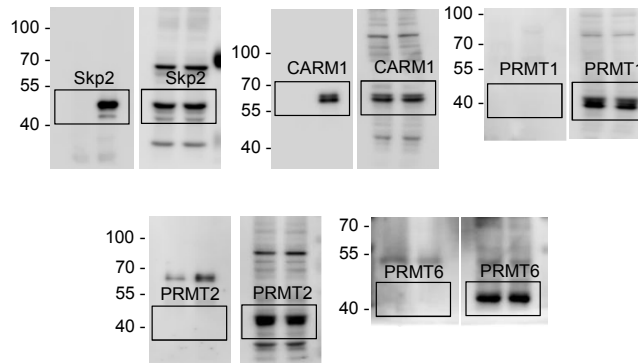


Figure 2d



Supplementary Figure 1. Original immunoblot images (continued)

Figure 2e

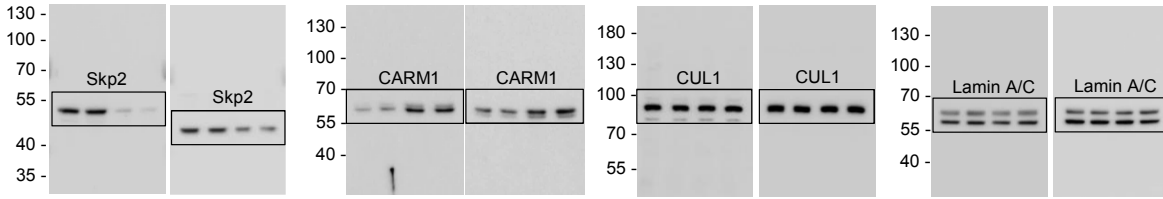


Figure 2f

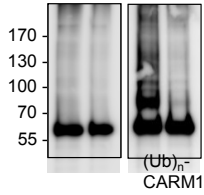


Figure 2g

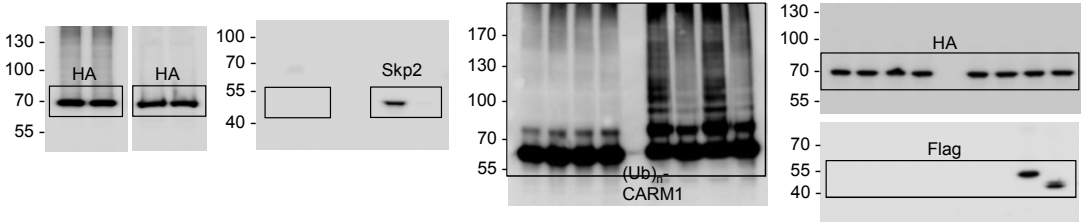


Figure 3a

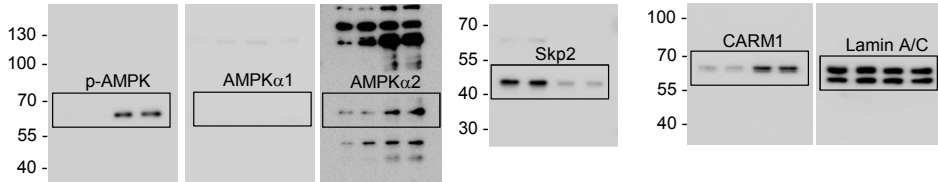


Figure 3b

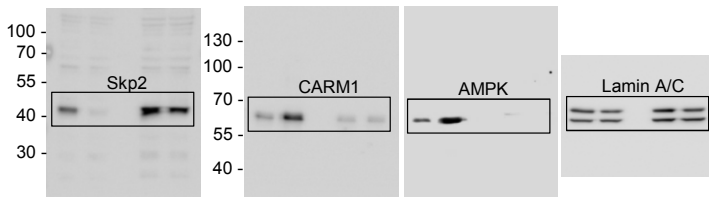


Figure 3i

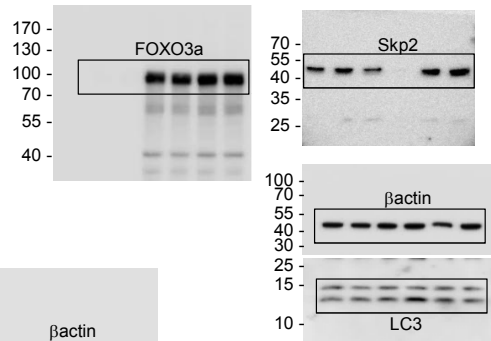


Figure 3k

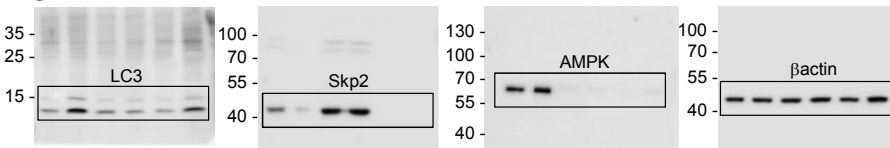


Figure 4a

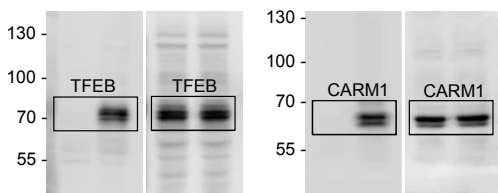


Figure 4h

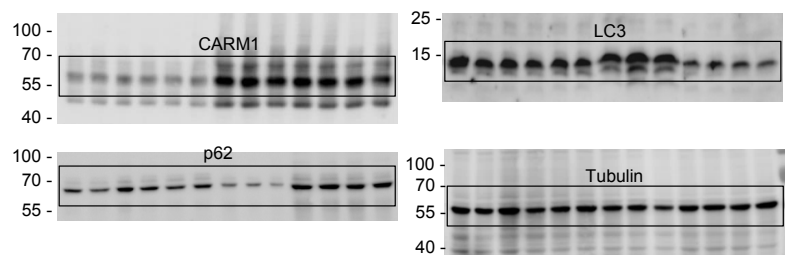
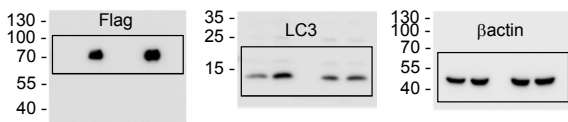
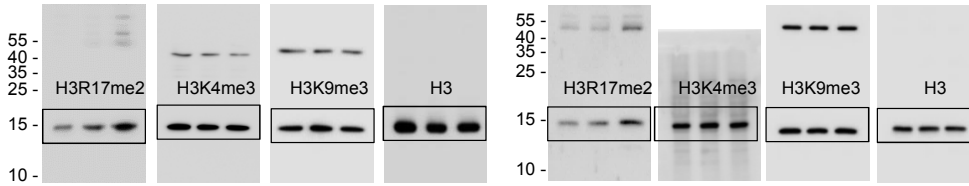


Figure 4g

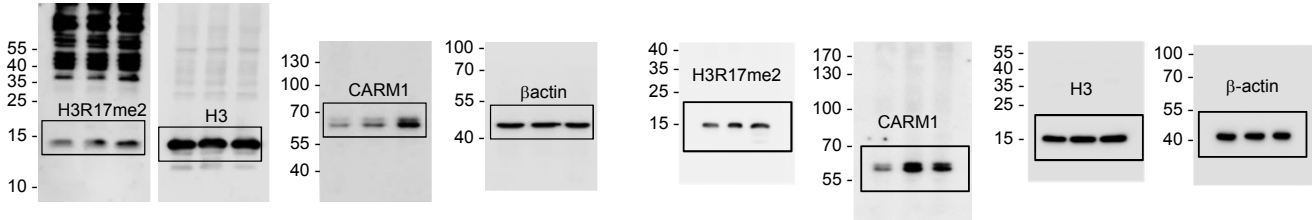


Supplementary Figure 1. Original immunoblot images (continued)

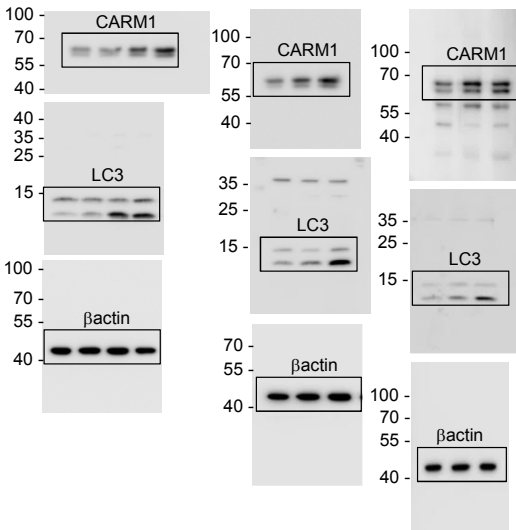
Ext Data Figure 1a



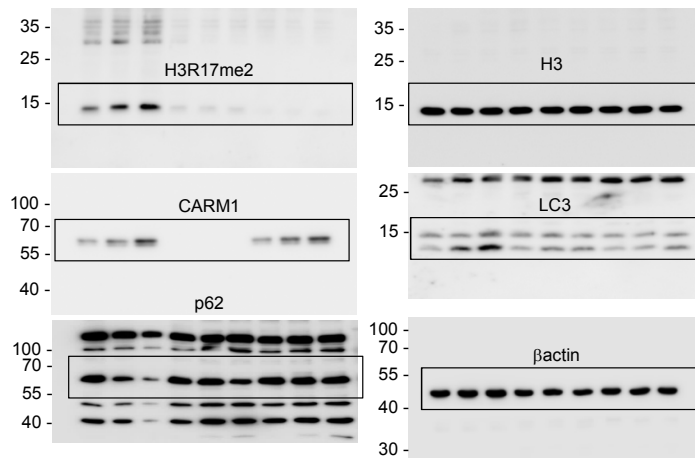
Ext Data Figure 1b



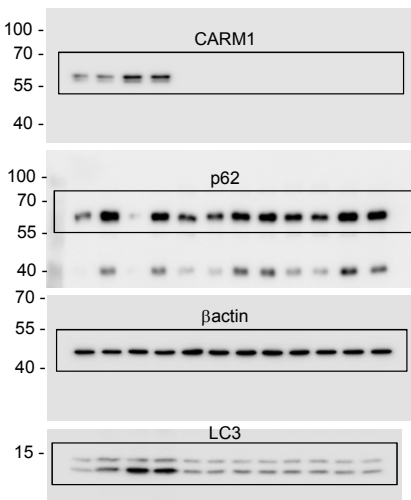
Ext Data Figure 1c



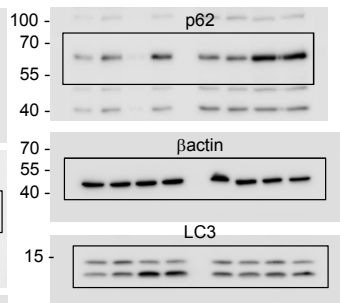
Ext Data Figure 1d



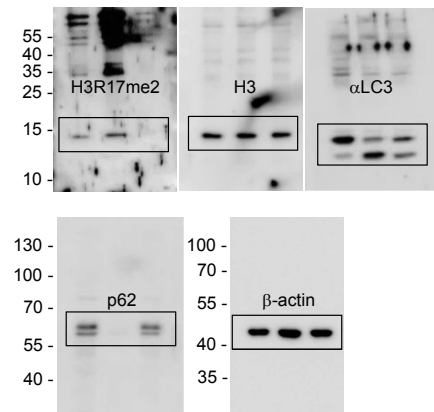
Ext Data Figure 2a



Ext Data Figure 2b

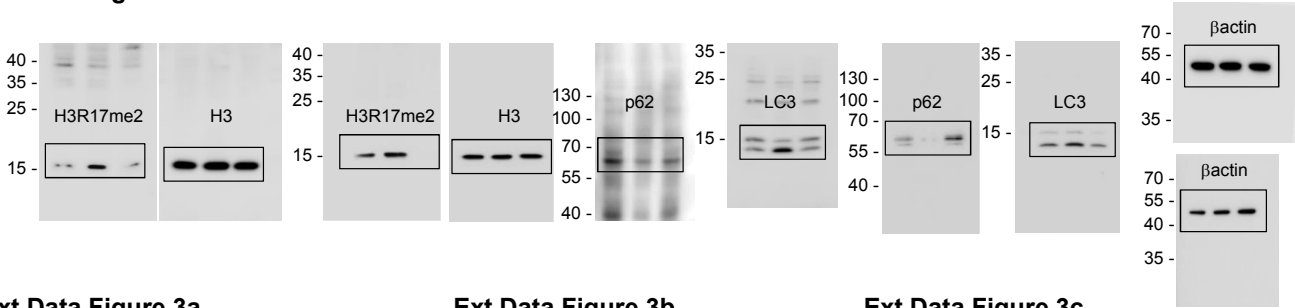


Ext Data Figure 2d

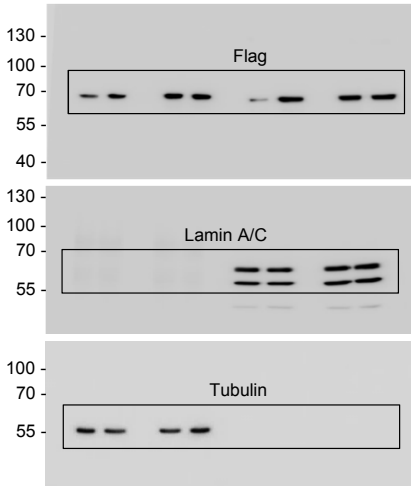


Supplementary Figure 1. Original immunoblot images (continued)

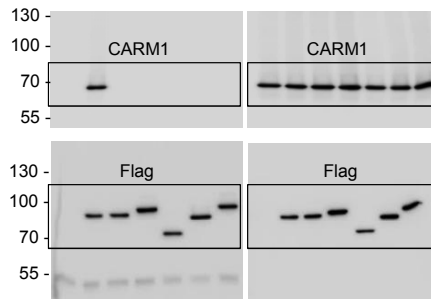
Ext Data Figure 2f



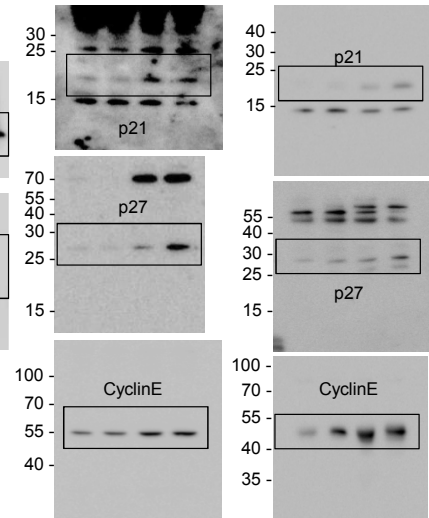
Ext Data Figure 3a



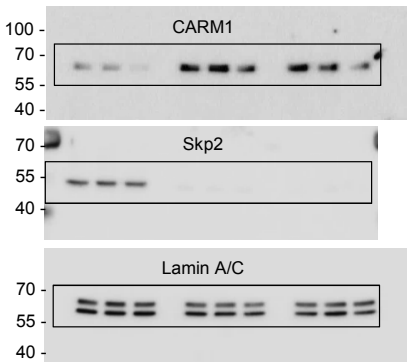
Ext Data Figure 3b



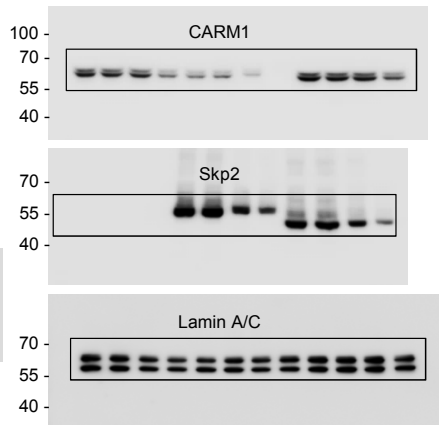
Ext Data Figure 3c



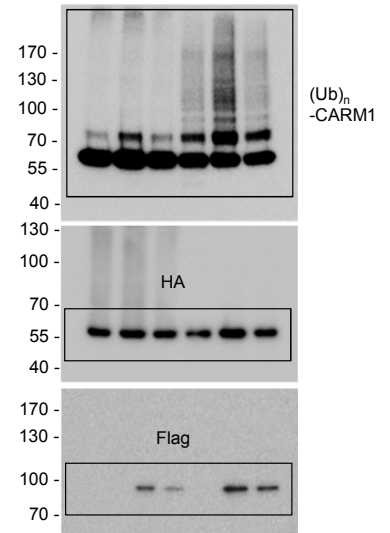
Ext Data Figure 3d



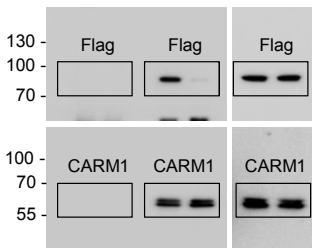
Ext Data Figure 3e



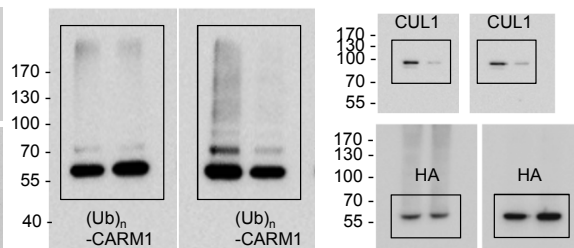
Ext Data Figure 4c



Ext Data Figure 4a

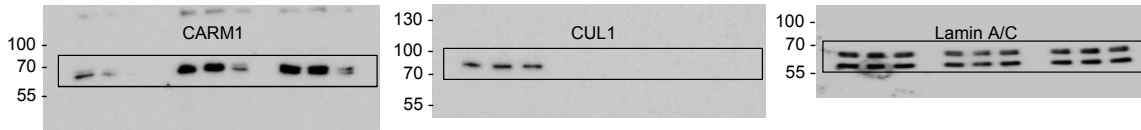


Ext Data Figure 4b

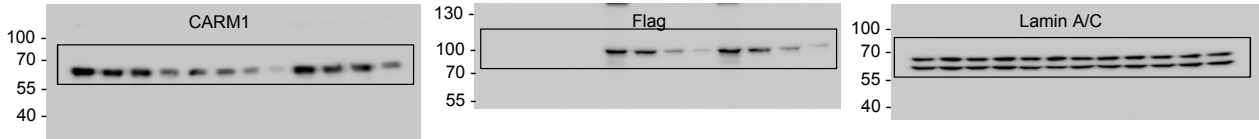


Supplementary Figure 1. Original immunoblot images (continued)

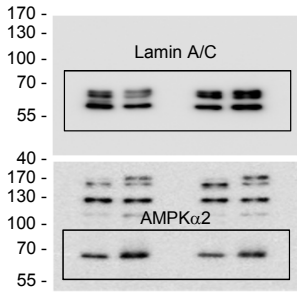
Ext Data Figure 4d



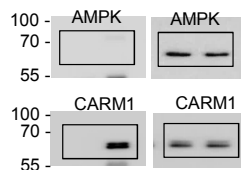
Ext Data Figure 4e



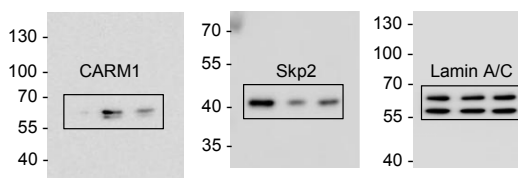
Ext Data Figure 5c



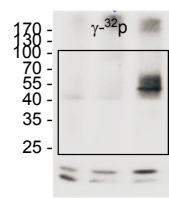
Ext Data Figure 5d



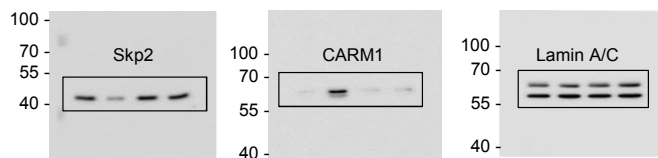
Ext Data Figure 5f



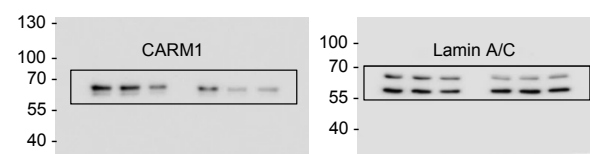
Ext Data Figure 5e



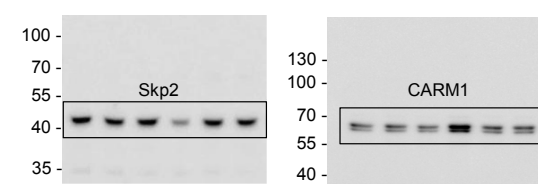
Ext Data Figure 5g



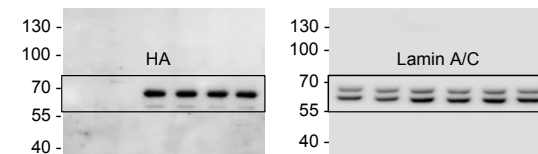
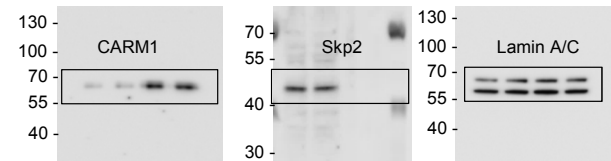
Ext Data Figure 5h



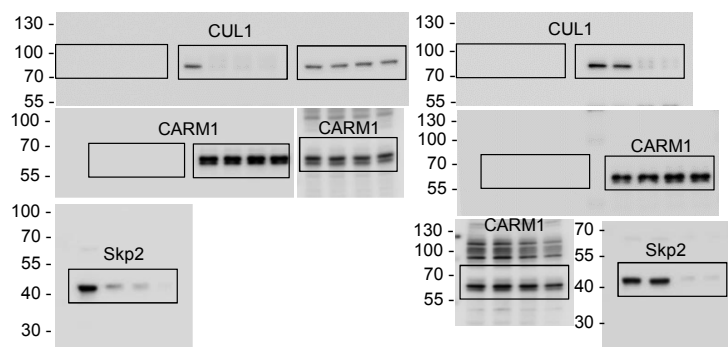
Ext Data Figure 5i



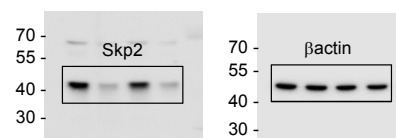
Ext Data Figure 5j



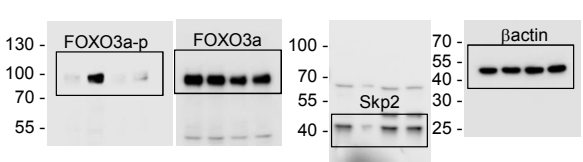
Ext Data Figure 5k



Ext Data Figure 5l

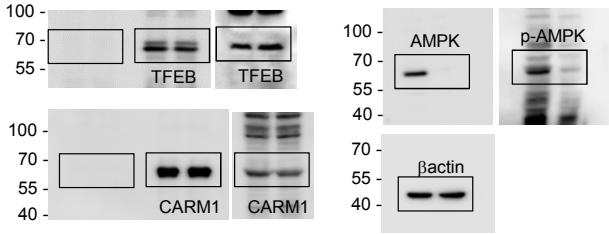


Ext Data Figure 5n

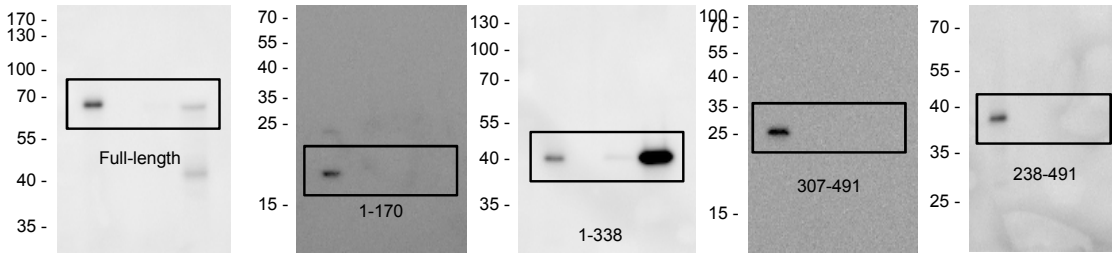


Supplementary Figure 1. Original immunoblot images (continued)

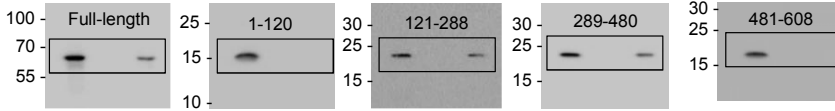
Ext Data Figure 7b



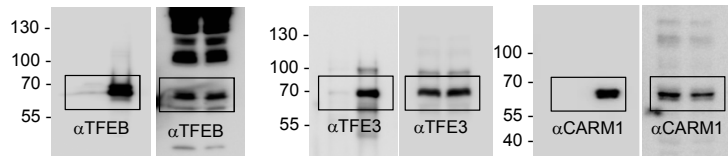
Ext Data Figure 7c



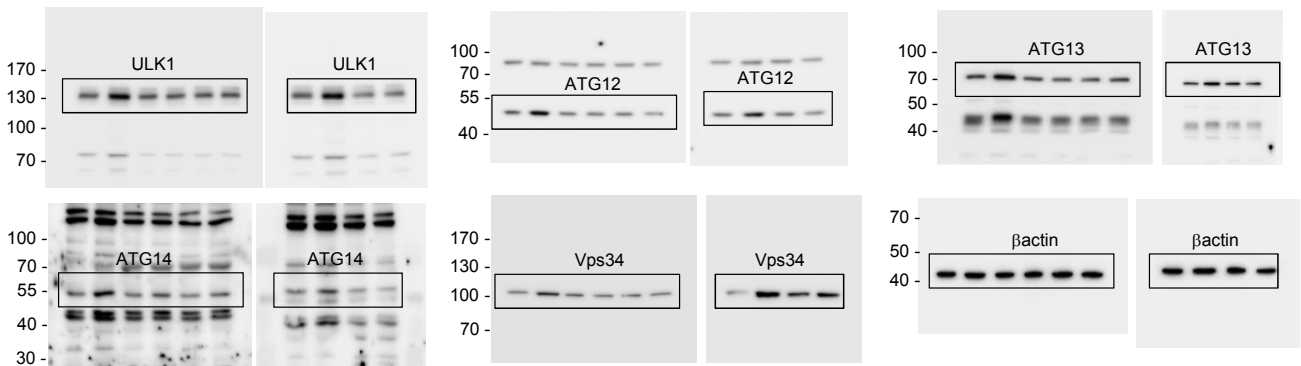
Ext Data Figure 7d



Ext Data Figure 7e



Ext Data Figure 8c



Supplementary Table 1. List of peptides and protein sequences identified by LC-MS/MS

Skp2

Peptide sequence	Number of Peptides	Protein name	SpecEValue
LASDESLWQTLDLTGK	22	SKP2_HUMAN	2.30534E-20
LLSQGVIAFR	15	SKP2_HUMAN	7.49177E-13
LSDPIVNTLAK	15	SKP2_HUMAN	3.80855E-14
LQNLSLEGLR	12	SKP2_HUMAN	1.78157E-12
SKGSDKDFVIVR	7	SKP2_HUMAN	4.32471E-16
NLQKSDLSTLVR	6	SKP2_HUMAN	1.92593E-15
GSDKDFVIVR	5	SKP2_HUMAN	1.68146E-13
SFMDQPLAEHFSPFR	5	SKP2_HUMAN	2.25122E-19
LASDESLWQTLDLTGKLNHPDVTGR	4	SKP2_HUMAN	1.10486E-31
LQNLSLEGLRLSDPIVNTLAK	4	SKP2_HUMAN	1.06744E-23
EEPDSENIQELLSNLGHPEPPR	2	SKP2_HUMAN	1.5803E-24
GSDKDFVIVRRPK	2	SKP2_HUMAN	5.31665E-15
LLSQGVIAFRC+57.021PR	2	SKP2_HUMAN	4.42809E-11
LNLSGC+57.021SGFSEFALQTLSSC+57.021SR	2	SKP2_HUMAN	4.05008E-16
NLHPDVTGR	2	SKP2_HUMAN	3.25938E-12
NLQKSDLSTLVRR	2	SKP2_HUMAN	3.6342E-12
SDLSTLVR	2	SKP2_HUMAN	1.37593E-10
SDLSTLVRR	2	SKP2_HUMAN	7.76671E-12
TSELLSGMGVSALEK	2	SKP2_HUMAN	2.38974E-14
C+57.021PNLVHLDLSDSVMLK	1	SKP2_HUMAN	9.30382E-18
LKSKGSDKDFVIVR	1	SKP2_HUMAN	1.41471E-17
LSDPIVNTLAKNSNLVR	1	SKP2_HUMAN	7.66848E-19
SKGSDKDFVIVRRPK	1	SKP2_HUMAN	7.70236E-11

CUL1

Peptide sequence	Number of Peptides	Protein name	SpecEValue
ESTEFLQQNPVTEYMK	1	CUL1_HUMAN	6.69029E-21
FYTQQWEDYR	1	CUL1_HUMAN	8.30789E-16
LLETHIHNQGLAAIEK	1	CUL1_HUMAN	2.4525E-14
LLIQAAIVR	1	CUL1_HUMAN	3.75849E-11
LLVLEDENANVDEVELKPDTLIK	1	CUL1_HUMAN	2.02498E-20
NPPEAELEDTLNQVMVFK	1	CUL1_HUMAN	1.36921E-12
QIGLDQIWDDLRL	1	CUL1_HUMAN	1.14373E-15
VQVYLHESTQDELAR	1	CUL1_HUMAN	5.80278E-18
YIEDKDVFK	1	CUL1_HUMAN	5.01813E-14

Supplementary Table 2. (A) List of autophagy-related and lysosomal genes

Autophagy genes (n=246)						
Akt1	Brsk1	Dclk2	Hif1a	Nampt	Rab5a	Ulk1
Akt2	Brsk2	Ddit3	Hsp90ab1	Nbr1	Rac1	Ulk2
Akt3	Calcoco1	Dlc1	Hspa5	Nckap1	Raf1	Ulk3
Ambra1	Calcoco2	Dnajb1	Hspa8	Nfe2l2	Rb1	Usp10
Arnt	Camk1	Dnajb9	Hspb8	Nfkb1	Rb1cc1	Uvrag
Arsa	Camk1d	Dram1	Ifng	Nlx2-3	Rela	Vamp3
Arsb	Camk1g	Edem1	Ikbkb	Nlrc4	Rgs19	Vegfa
Atf4	Camk2a	Eef2	Ikbke	Npc1	Rheb	Wdfy3
Atf6	Camk2b	Eef2k	Il24	Nrg1	Rock1	Wdr45
Atg10	Camk2d	Egfr	Itga3	Nrg2	Rps6kb1	Wipi1
Atg12	Camk2g	Eif2ak2	Itga6	Nrg3	Rps6kb2	Wipi2
Atg13	Camkk2	Eif2ak3	Itgb1	Nuak1	Rptor	Zfyve1
Atg16i1	Canx	Eif2s1	Itgb4	Nuak2	Sar1a	
Atg16i2	Capn1	Eif4ebp1	Itpr1	P4hb	Sesn2	
Atg2a	Capn10	Eif4g1	Kif15	Park2	Sgk1	
Atg2b	Capn2	ErbB2	Kif5b	Parp1	Sgk2	
Atg3	Capns1	Ern1	Klhl24	Pelp1	Sgk3	
Atg4a	Casp1	Ero1l	Lamp1	Pex14	Sh3glb1	
Atg4b	Casp3	Fadd	Lamp2	Pex3	Sik1	
Atg4c	Casp4	Fas	Map1lc3a	Phldb2	Sik2	
Atg4d	Casp8	Fkbp1a	Map1lc3b	Pik3c3	Sirt1	
Atg5	Ccl2	Fkbp1b	Map2k7	Pik3r4	Sirt2	
Atg7	Ccr2	Fos	Mapk1	Pink1	Snrk	
Atg9a	Cd46	Foxo1	Mapk3	Pkd1l3	Sphk1	
Atg9b	Cdkn1a	Foxo3	Mapk8	Plk3	Spns1	
Atic	Cdkn1b	Gaa	Mapk8ip1	Plk4	Sqstm1	
Bag1	Cdkn2a	Gabarap	Mapk9	Pnck	Stt3	
Bag3	Cflar	Gabarap1	Mark1	Ppp1r15a	Stk11	
Bak1	Chd9	Gabarap2	Mark2	Prkaa1	Stk33	
Bax	Chmp2b	Gapdh	Mark3	Prkaa2	Stk36	
Bcl2	Chmp4b	Gnai3	Mark4	Prkab1	Tbk1	
Bcl2l1	Cln3	Gnb2l1	Mbtps2	Prkar1a	Thoc5	
Becn1	Ctsb	Gopc	Mlst8	Prkcd	Tm9sf1	
Bid	Ctsd	Grid1	Mtmr14	Prkcq	Tmem74	
Birc5	Cx3cl1	Grid2	Mtor	Pten	Tnfsf10	
Birc6	Cxcr4	Harbi1	Muc6	Plk6	Tpr	
Bnip1	Dapk1	Hdac1	Myc	Rab11a	Tsc1	
Bnip3	Dapk2	Hdac6	Myo18a	Rab24	Tsc2	
Bnip3l	Dclk1	Hgs	Naf1	Rab33b	Tusc1	

Supplementary Table 2. (A) List of autophagy-related and lysosomal genes (continued)

Lysosomal genes (n=348)								
Abca2	Atp5b	Cts7	Fnbp1	Hyal1	Mcoln1	Pld3	Slc17a5	Tpcn2
Abca5	Atp6ap1	Ctsa	Fth1	Hyal2	Mfsd8	Plekhhf1	Slc26a11	Tpp1
Abcb9	Atp6v0a1	Ctsb	Ftl1	Hyal3	Mlc1	Plod1	Slc29a3	Trim23
Acp2	Atp6v0a2	Ctsc	Fuca1	Ids	Mmd	Pnpla7	Slc31a1	Trip10
Acp5	Atp6v0a4	Ctsd	Fuca2	Idua	Mmp13	Pon2	Slc36a1	Tspan1
Acpp	Atp6v0b	Ctse	Fyco1	Ifi30	Mpo	Ppt1	Slc48a1	Unc13d
Ada	Atp6v0c	Ctsf	Gaa	Ifitm3	Mt1	Ppt2	Smpd1	Unc93b1
Adam8	Atp6v0d1	Ctsg	Gabarap	Igf2r	Mtor	Pqlc2	Smpd3a	Uvrag
Aga	Atp6v0d2	Ctsh	Galc	Il4i1	Myh1	Prcp	Snap23	Vamp8
Aldob	Atp6v1g1	Ctsj	Galns	Irgm1	Myo7a	Prdx6	Snapin	Vma21
Ank3	Atp6v1h	Ctsk	Gba	Itm2c	Naaa	Prf1	Snx16	Vps11
Ankrd27	Bcl10	Ctsl	Gc	Kcne1	Naga	Prss16	Sort1	Vps18
Anxa11	Calcr1	Ctsm	Gga1	Kcne2	Naglu	Psap	Spaca3	Vps33a
Ap1b1	Cat	Ctso	Gga2	Kif2a	Nagpa	Psapl1	Sphk2	Vps33b
Ap1g1	Ccdc115	Ctsr	Gga3	Lamp1	Napsa	Psen1	Spns1	Vps36
Ap1g2	Cckar	Ctss	Ggh	Lamp2	Nbr1	Psen2	Src	Vps39
Ap1m1	Ccz1	Ctsw	Gimap5	Lamp3	Ncstn	Rab14	Srgn	Vps4b
Ap1m2	Cd164	Ctsz	Gja1	Lamtor1	Neu1	Rab27a	Stx3	Wdr48
Ap1s1	Cd1d1	Cubn	Gla	Lamtor2	Neu4	Rab7	Stx7	Znrf1
Ap1s2	Cd1d2	Cxcr2	Glb1	Laptm4a	Ngp	Rab9	Stx8	Znrf2
Ap1s3	Cd300lh	Dirc2	Gm2a	Laptm4b	Nos1	Rilp	Stxbp2	
Ap3b1	Cd63	Dnase2a	Gnptab	Laptm5	Npc1	Rnase6	Sult1c2	
Ap3b2	Cd68	Dnase2b	Gnptg	Ldir	Npc2	Rnaset2a	Sumf1	
Ap3d1	Cd74	Doc2a	Gns	Lgmn	Nppa	Rnaset2b	Syt7	
Ap3m1	Ces1d	Dpp4	Got1	Lhcgr	Nup62-il4i1	Rnf13	Tcirg1	
Ap3m2	Ces2e	Dpp7	Gpc3	Lipa	Oca2	Rnf152	Tecpr1	
Ap3s1	Ces3b	Dram1	Gpr137b	Litaf	Ostm1	Rptor	Thbs1	
Ap3s2	Chid1	Dram2	Gpr143	Lmbrd1	P2ry2	Rraga	Tlr7	
Ap4b1	Chit1	Ear14	Grn	Lpl	P4hb	Rragb	Tlr9	
Ap4e1	Cln7	Ear4	Gusb	Lrba	Pax2	Rragc	Tm9sf1	
Ap4m1	Cln3	Eif5a	H2-Aa	Ltf	Pcsk9	Rragd	Tmbim1	
Ap4s1	Cln5	Elane	H2-DMa	M6pr	Pcyox1	Scarb2	Tmem106b	
Aqp2	Cita	Enpep	H2-DMb2	Man2b1	Pdgfrb	Scpep1	Tmem192	
Arl8a	Citb	Entpd4	H2-Eb1	Man2b2	Pdia3	Selenbp2	Tmem55a	
Arl8b	Citc	Epdr1	H2-Ob	Manba	Pf4	Sgsh	Tmem55b	
Arsa	Creg1	Fam20c	Hck	Manf	Pla2g15	Siae	Tmem63a	
Arsb	Crhbp	Fasl	Hexa	March1	Pla2g4e	Sidt2	Tmem74	
Arsg	Cst3	Fgb	Hexb	March2	Pla2g4f	Slc11a1	Tmem9	
Asah1	Ctbs	Fgfr3	Hgsnat	March3	Plb1	Slc11a2	Tmem97	
Ass1	Ctns	Flot1	Hps4	March8	Plbd1	Slc15a3	Tnfaip3	
Atp13a2	Ctrb1	Flot2	Hpse	March9	Plbd2	Slc15a4	Tpcn1	

- Lysosomal genes were obtained from Lysosomal gene database <http://lysosome.unipg.it>

- Autophagy genes were combined from the Human Autophagy Database (<http://autophagy.lu>)

and the mouse Autophagy Database (<http://www.tanpaku.org/autophagy>)

Supplementary Table 2. (B) List of genes from RNA-seq. cluster 1 with putative CLEAR motif

Gene name	Chr. location	motif_start (mm9)	Gene name	Chr. location	motif_start (mm9)
1700001L05Rik	chr15	[83197910]	Fam214a	chr9	[74800675]
1700007K13Rik	chr2	[28321866]	Fbxl3	chr14	[103499033]
1700030K09Rik	chr8	[74967716]	Fbxo10	chr4	[45097484]
2410006H16Rik	chr11	[62416289]	Fbxo25	chr8	[13907715]
6430548M08Rik	chr8	[122668471]	Ficn	chr11	[59623457]
9430076C15Rik	chr6	[53237246]	Fn3k	chr11	[121295883, 121296270]
Aars	chr8	[113557594]	Fnip1	chr11	[54251604]
Abcb9	chr5	[124545833]	Foxred2	chr15	[77787190]
Adck3	chr1	[182126397]	G630090E17Rik	chr10	[39680072]
Adck4	chr7	[28017882]	Gareml	chr5	[30431688]
Aldh1l2	chr10	[82996926]	Gga2	chr7	[129164706]
Als2	chr1	[59293994]	Glt1d1	chr5	[128112407]
Armxc1	chrX	[131252472]	Gm10560	chr4	[155398335]
Armxc3	chrX	[131291120]	Gm1141	chrX	[69177683]
Armxc6	chrX	[131285977]	Gm16515	chr11	[60727322]
Arrdc1	chr2	[24791121]	Gng3	chr19	[8914138]
Arsk	chr13	[76236454]	Golga5	chr12	[103707916]
Atg14	chr14	[48188103]	Gpbp111	chr4	[116229946]
Atp6v1c1	chr15	[38591692]	Gpc2	chr5	[138721565]
AW549877	chr15	[3945740, 3945748, 3945764]	Gpnb	chr6	[48986588]
B4galnt2	chr11	[95776482]	Gps2	chr11	[69727689]
Bex1	chrX	[132750048]	Hagh	chr17	[24986943, 24987042]
Bscl2	chr19	[8914529]	Heiq	chr5	[101227613]
C2cd2l	chr9	[44128830]	Hmgcl	chr4	[135502358]
Calr	chr8	[87371047]	Hsd1	chr8	[122099077]
Canx	chr11	[50139094]	Hsp90b1	chr10	[86168648]
Ccdc163	chr4	[116381138]	Hspa1a	chr17	[35109576]
Ccdc9	chr7	[16872140]	Hspbap1	chr16	[35770444]
Cdkn1c	chr7	[150647198]	Ica1	chr6	[8728434]
Cenpk	chr13	[105018214]	Ift172	chr5	[31593804]
Chaf1a	chr17	[56179738]	Ing4	chr6	[124989610]
Chmp7	chr14	[70132404]	Irak3	chr10	[119638641]
Cnppd1	chr1	[75139106, 75139288, 75139308]	Kcnip4	chr5	[48901443]
Cpeb4	chr11	[31770450]	Kdm4b	chr17	[56465246]
Crebrf	chr17	[26852468, 26852579, 26852597]	Khk	chr5	[31223859]
Cry1	chr10	[84647852]	Klf15	chr6	[90412203, 90412396, 90412565]
Ctns	chr11	[73012542]	Lgals3	chr14	[47993310, 47993623]
Cystm1	chr18	[36508310]	Lin52	chr12	[85792453]
D6ErtD527e	chr6	[87054319]	Lmtk2	chr5	[144861230]
Dgkq	chr5	[109089828]	Lnp	chr2	[74417065]
Dhps	chr8	[87595598]	Lonp1	chr17	[56766355]
Dhtkd1	chr2	[5863815]	Lrrc48	chr11	[60166805]
Dleu2	chr14	[62301381]	Lrrc56	chr7	[148381036, 148381111]
Eaf2	chr16	[36828827]	Lrrc73	chr17	[46390723]
Eif5a2	chr3	[28680080]	Lym9	chr11	[78639757]
Elovl4	chr9	[83699900]	Mamdc4	chr2	[25426761]
Epcam	chr17	[88035347]	Map1lc3b	chr8	[124114336]
Fabp3	chr4	[129985935]	Mark1	chr1	[186823628]
Fam178a	chr19	[45005456]	Mcoln1	chr8	[3500446, 3500472]
Fam210b	chr2	[172170578, 172170623]	Med4	chr14	[73909485]

Supplementary Table 2. (B) List of genes from RNA-seq. cluster 1 with putative CLEAR motif (continued)

Gene name	Chr. location	motif_start (mm9)	Gene name	Chr. location	motif_start (mm9)
Mfsd1	chr3	[67386602, 67386618, 67386652, 67386662, 67386670]	Slc38a9	chr13	[113450686]
Mfsd7c	chr12	[87087467]	Slc5a8	chr10	[88348494]
Mocos	chr18	[24811721]	Smox	chr2	[131317269]
Mpv17	chr5	[31456559, 31456593]	Smpd2	chr10	[41210333]
Mtss1	chr8	[113245325]	Snora21	chr11	[97643319]
Muc2	chr7	[148875737]	Snx32	chr19	[5510650]
Neur2	chr2	[164659154, 164659259, 164659276]	Sox21	chr14	[118636162]
Nfx1	chr4	[40918004]	Sptbn2	chr19	[4711160]
Nkpd1	chr7	[20103885]	Tbc1d24	chr17	[24342967]
Nmnat1	chr4	[148859521]	Tbcel	chr9	[42280339]
Nol7	chr13	[43493364]	Tceal1	chrX	[133242518]
Orc6	chr8	[87823410]	Tmeff2	chr1	[50984316]
Osbp2	chr11	[3764006]	Tmem181a	chr17	[6270376, 6270444]
Osgep	chr14	[51544622]	Tmem194	chr10	[127113738]
Palb2	chr7	[129276728]	Tmem246	chr4	[49610686]
Pcgf1	chr6	[83028228]	Tmem41b	chr7	[117129719, 117129771]
Pcsk6	chr7	[73006726]	Tom1	chr8	[77557599, 77557633]
Pdhb	chr14	[9005747, 9005863]	Tom12	chr11	[60166805]
Phyhip	chr14	[70857218]	Trmt1	chr8	[87213163]
Pim2	chrX	[7454960]	Tsc1	chr2	[28496423]
Plagl1	chr10	[12810454]	Ttbk1	chr17	[46624808]
Plcg2	chr8	[120022153]	Tubg2	chr11	[101017004]
Plgrkt	chr19	[29436282]	Ubxn11	chr4	[133658412]
Pmaip1	chr18	[66618191]	Ulk1	chr5	[111239469]
Pnpla7	chr2	[24831575]	Ung	chr5	[114580088]
Poln	chr5	[34512097]	Usp11	chrX	[20280697]
Ppargc1a	chr5	[51945151, 51945588]	Vps11	chr9	[44169746, 44169767]
Prrg4	chr2	[104690152]	Wbscr27	chr5	[135408091]
Ptpdc1	chr13	[48721065]	Wdr19	chr5	[65590807]
Ptplad1	chr9	[64869595]	Wdr62	chr7	[31065831, 31065901, 31065932]
Qtrt1	chr9	[21216231]	Wisp3	chr10	[38883831]
Rab24	chr13	[55423332]	Ypel5	chr17	[73185640]
Rab5b	chr10	[128133665]	Zer1	chr2	[29980593]
Rad51ap1	chr6	[126889507]	Zfp112	chr7	[24896986]
Rad54b	chr4	[11485702, 11485794]	Zfp28	chr7	[6336094]
Rcan3	chr4	[134990055]	Zfp296	chr7	[20162677]
Rfc4	chr16	[23128139]	Zfp40	chr17	[23330294]
Rgs12	chr5	[35341633]	Zfp459	chr13	[67522392]
Rnf207	chr4	[151693023]	Zfr2	chr10	[80695511]
Rpa1	chr11	[75161946]	Zmym6	chr4	[126754552, 126754589, 126754637]
Rpl3	chr15	[79914168]			
Rsph9	chr17	[46281535]			
Rtbdn	chr8	[87470624]			
Scnn1a	chr6	[125271305]			
Serac1	chr17	[6079729]			
Sfn	chr4	[133158117]			
Sh3bgr2	chr9	[83441793]			
Shmt1	chr11	[60624701]			
Sirt1	chr10	[62801819, 62801891]			
Slc22a13b-ps	chr9	[119140991, 119141220]			
Slc26a11	chr11	[119216846]			
Slc38a7	chr8	[98377418, 98377433]			

- List of genes from RNA-seq Cluster 1 with putative CLEAR motif
 - Criteria for a CLEAR motif was at most a single mismatch with the 8bp consensus CLEAR sequence (TCACGTGA). The motifs were searched within the region from the transcription start site (tss) to 500bp upstream to 100bp downstream.

Supplementary Table 3. List of autophagy-related genes and lysosomal genes with increase in H3R17me2 upon glucose starvation.

Autophagy genes (n=127)				Lysosomal genes (n=190)				
Akt1	Dclk2	Mtlnr14	Stk36	Abca5	Creg1	Gpr137b	Naga	Sidt2
Ambra1	Ddit3	Mtor	Tmem74	Abcb9	Crhbp	Grn	Naglu	Slc15a4
Arsb	Dlc1	Myc	Tsc1	Acp2	Cst3	Gusb	Nagpa	Slc26a11
Atf6	Dnajb9	Nbr1	Tusc1	Ada	Ctns	H2-Aa	Nbr1	Slc31a1
Atg10	Egfr	Nfe2l2	Ulk1	Adam8	Cts7	H2-DMa	Neu1	Slc36a1
Atg12	Eif2ak2	Nfkb1	Ulk3	Anxa11	Ctsa	H2-Eb1	Nup62-il4i1	Slc48a1
Atg13	Eif4ebp1	Nuak1	Usp10	Ap1g1	Ctsc	Hexa	Oca2	Smpd1
Atg16l1	Eif4g1	Park2	Vamp3	Ap1g2	Ctsd	Hexb	Ostm1	Snap23
Atg2a	Fadd	Parp1	Vegfa	Ap1m1	Ctsf	Hgsnat	P2ry2	Sort1
Atg4a	Fos	Pelp1	Wdr45	Ap1s3	Ctsj	Hps4	Pcyox1	Sphk2
Atg4b	Foxo3	Pik3r4	Wipi1	Ap3b2	Cubn	Hpse	Pdgfrb	Spns1
Atic	Gaa	Pink1	Wipi2	Ap3m1	Dnase2a	Hyal2	Pdia3	Srgn
Bag1	Gabarap	Plk3	Zfyve1	Ap3s2	Doc2a	Hyal3	Pf4	Stx3
Bag3	Gabarap1	Plk4		Ap4m1	Dpp7	Ids	Pla2g15	Stx7
Bax	Gabarap2	Ppp1r15a		Ap4s1	Dram2	Idua	Pld3	Stx8
Bcl2	Gapdh	Prkab1		Arl8a	Ear14	Ifitm3	Plod1	Stxbp2
Bcl2l1	Gnai3	Prkar1a		Arl8b	Ear4	Igf2r	Pnpla7	Sult1c2
Becn1	Grid1	Prkod		Arsb	Elane	Kcne1	Pon2	Sumf1
Bid	Harbi1	Ptk6		Arsg	Entpd4	Lamp1	Ppt1	Syt7
Birc5	Hdac6	Rab24		Asah1	Fam20c	Lamp2	Ppt2	Tcirg1
Bnip1	Hgs	Rab33b		Ass1	Fasl	Lamtor1	Pqlc2	Tecpr1
Calcoco1	Hif1a	Rab5a		Atp13a2	Fgfr3	Lamtor2	Prcp	Thbs1
Camk1	Hsp90ab1	Raf1		Atp6v0a1	Flot1	Laptm4a	Psap	Tlr9
Camk1d	Hspb8	Rela		Atp6v0a2	Flot2	Lgmn	Psen1	Tmem74
Camk2a	Ikbbk	Rps6kb1		Atp6v0b	Fth1	Lipa	Psen2	Tmem9
Camk2b	Ikcke	Rps6kb2		Atp6v0c	Ftl1	Lrba	Rab27a	Tpcn1
Camk2g	Itga3	Rptor		Atp6v0d1	Fuca2	Man2b1	Rab7	Tpp1
Camkk2	Itpr1	Sar1a		Atp6v1g1	Fyco1	Man2b2	Rilp	Trim23
Capn1	Klhl24	Sesn2		Atp6v1h	Gaa	Manba	Rnaset2a	Unc13d
Capn10	Lamp1	Sik1		Calcr1	Gabarap	Manf	Rnaset2b	Vamp8
Cd46	Lamp2	Sik2		Cckar	Galc	March2	Rnf152	Vps11
Cdkn1a	Map2k7	Sirt1		Cd63	Gba	March9	Rptor	Vps18
Cdkn2a	Mapk1	Sirt2		Cd74	Gga2	March8	Rraga	Vps33a
Cflar	Mapk3	Snrk		Chid1	Ggh	Mfsd8	Rragc	Vps33b
Chd9	Mapk8ip1	Sphk1		Chit1	Gimap5	Mmp13	Rragd	Vps39
Chmp2b	Mapk9	Spns1		Cln3	Gja1	Mtor	Scarb2	Wdr48
Cln3	Mark1	Sqstm1		Cln5	Gns	Myh1	Scpep1	Znrf1
Ctsd	Mark2	St13		Cltb	Got1	Naaa	Sgsh	Znrf2

List of autophagy and lysosomal genes with increase in H3R17me2 upon glucose starvation

H3R17me2 peak Tag counts GS18h / H3R17me2 peak Tag count GS0h ≥ 1.5