

Supplementary Table S1. Specification of the dilutions and catalog number for each primary antibody.

| Primary antibody | Catalog number | Dilution used | Primary antibody | Catalog number | Dilution used |
|--------------------------------|----------------|-----------------|---------------------------------|----------------|-----------------|
| AMPK | ab80039 | 1:1000 | HSP70 | SPA-810 | 1:1000 |
| ATG5 | ab108327 | 1:1000 | LC3B | L7543 | 1:1000 |
| ATPB | ab14730 | 1:1000 | Mfn1 | sc-166644 | 1:1000 |
| BAX | ab32503 | 1:1000 | pAMPK | ab23875 | 1:1000 |
| BCL2 | sc-7382 | 1:200 | Parkin | sc-32282 | 1:1000 or 1:500 |
| Beclin1 | sc-48341 | 1:1000 | PFKM | ab154804 | 1:1000 |
| BNIP3 | ab10433 | 1:1000 | PGC-1α | ab191838 | 1:1000 |
| ETFDH | ab91508 | 1:1000 | PPARα | ab24509 | 1:1000 |
| GAPDH | ab9485 | 1:1000 | PPARγ | ab41928 | 1:1000 or 1:500 |
| GLUT4 | ab48547 | 1:1000 or 1:500 | SIRT3 | sc-49744 | 1:1000 |
| GSK-3β | sc-377213 | 1:500 | TFAM | sc-28200 | 1:1000 |
| HSP27 | sc-9012 | 1:500 | | | |