

## Description of Additional Supplementary Files

File Name: **Supplementary Movie 1**

Description: **Real time imaging of mitochondrial matrix ATP levels following complex III inhibition.** Cells of the indicated genotype expressing mtATeam1.3 were treated when indicated with 10 $\mu$ M antimycin A. The frame when antimycin A is added is indicated and held still for 10 frames. mtATeam1.3 FRET ratio is pseudocolored using a rainbow scale.

File Name: **Supplementary Movie 2**

Description: **Real time imaging of mitochondrial membrane potential levels following complex III inhibition.** Cells of the indicated genotype were loaded with 20nM TMRM and treated when indicated with 10 $\mu$ M antimycin A and 2  $\mu$ M FCCP. The frames when antimycin A and FCCP are added are indicated and held still for 10 frames. Where indicated (KD sub e), ATP5k was silenced as described in the main text

File Name: **Supplementary Data 1**

Description: **List of ATP synthase subunits analyzed by MS in Figure 4.** Accession numbers are provided along with the description of the genes and proteins analyzed by MS.