

**Supplementary Figure 1 Transfection efficiency analysis** Jurkat T cells were transfected with a lentiviral vector LV-Mfn2, LV-mCherry (over-expression scramble control), LV-Mfn2 RNAi or LV-RFP (silence scramble control) at MOI=50. (a) After 72 hours, cells were observed under a fluorescence microscope. (b) The expression of protein Mfn2 was measured by Western blot analysis.  $\beta$ -actin was used as a loading control. Results of three independent experiments were shown as the mean $\pm$ SD in the bar graph. Bar 1, the control group; Bar 2, the LV-Mfn2 group; Bar 3, the LV-mCherry group; Bar 4, the LV-Mfn2RNAi group; Bar 5, the LV-RFP group. \*P<0.05, significant difference vs. the control group. \*\*P<0.01, significant difference vs. the control group. ##P<0.01, significant difference vs. the LV-mCherry group. \$P<0.05, significant difference vs. the LV-RFP group.

## Supplementary Figure 1

