

## Supplementary Figure legends

### **Supplementary Figure 1. Determination of mtDNA copy number by real-time PCR.**

Relative mtDNA copy number was determined by the quantitative real-time PCR as described in Materials and Methods. The efficiency of the real-time PCR amplification was established from 20 ng to 5 pg (4-fold repeated dilutions) of cellular DNA from CRL-1807 normal colon epithelial cells, which were allowed to react with primers specific to mtDNA (ND1 gene) and nDNA ( $\beta$ -actin gene), respectively. The correlation coefficient  $R^2$  was 0.9993 for nDNA and 0.9994 for mtDNA, respectively.

### **Supplementary Figure 2. Verification of Wt- or Mut-TFAM expression in RKO cells**

**following Lentiviral transduction.** (A) The recombinant pCDH-CMV-MCS-EF1-copGFP-Wt- or Mut-TFAM lentivirus (with GFP-IRES) were packaged and applied to RKO cells as described in Materials and Methods. The infection efficiency was above 95% with GFP as infection efficiency marker. (B) The expression of Wt- (\*) or Mut-TFAM (\*\*) in infected RKO cells were verified using immunoblotting method with anti-TFAM antibody (left) and anti-Myc antibody (right). The lentiviral vector was used as control.