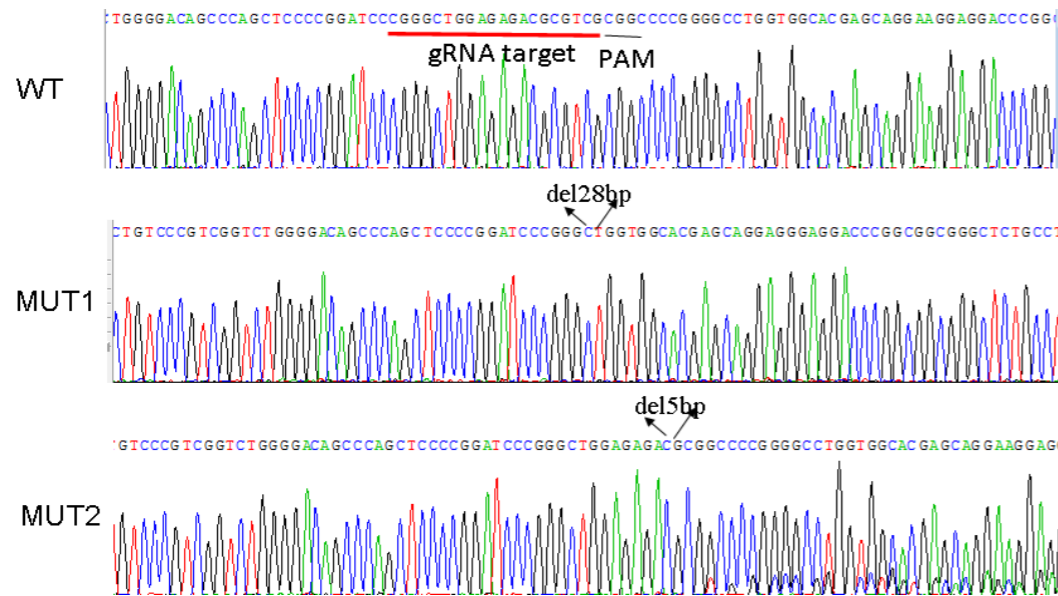


## Supplemental Figures

S1



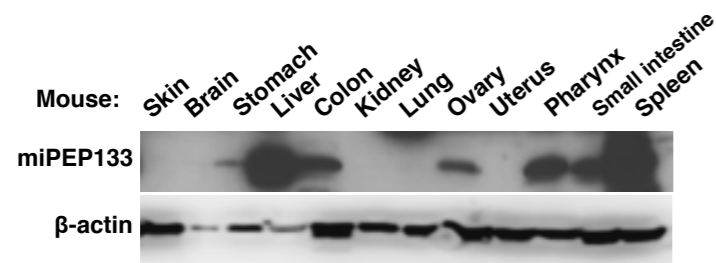
### Protein

WT MPLSRRSGDSPAPRIPGWRDASRPRGLVA  
RAGRTRRRALPGLAWACSEPGCFVTTQ  
IGGIWRFCGSPAACKLRRRGLEACTTCSF  
RPSMHPGAGERQDRPVPRVPSGCRGPASC  
ECFFGSVLAGCCEQ

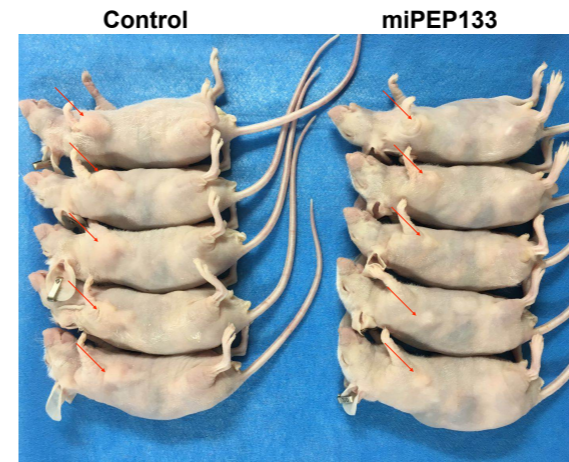
MUT1 MPLSRRSGDSPAPRIP\*

MUT2 MPLSRRSGDSPAPRIPGWR\*

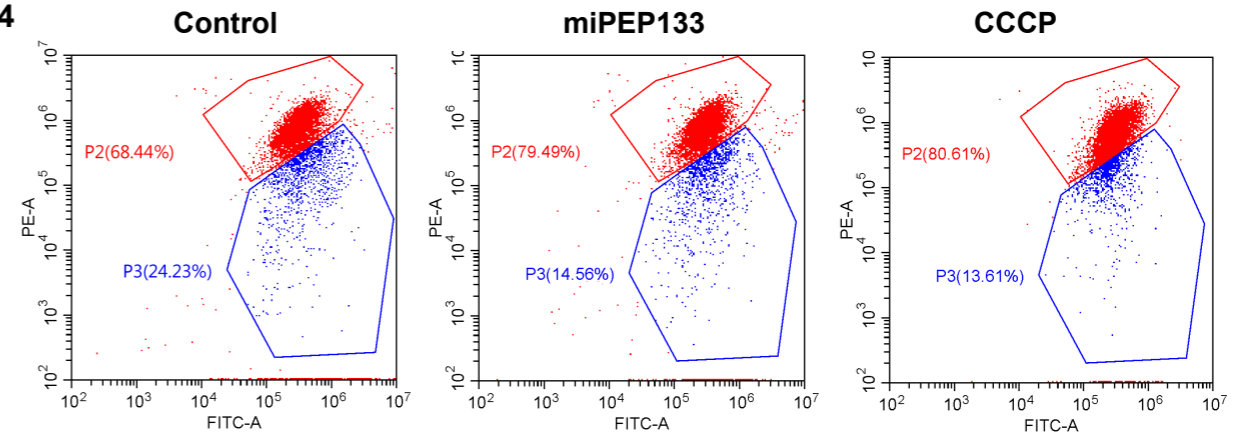
S2



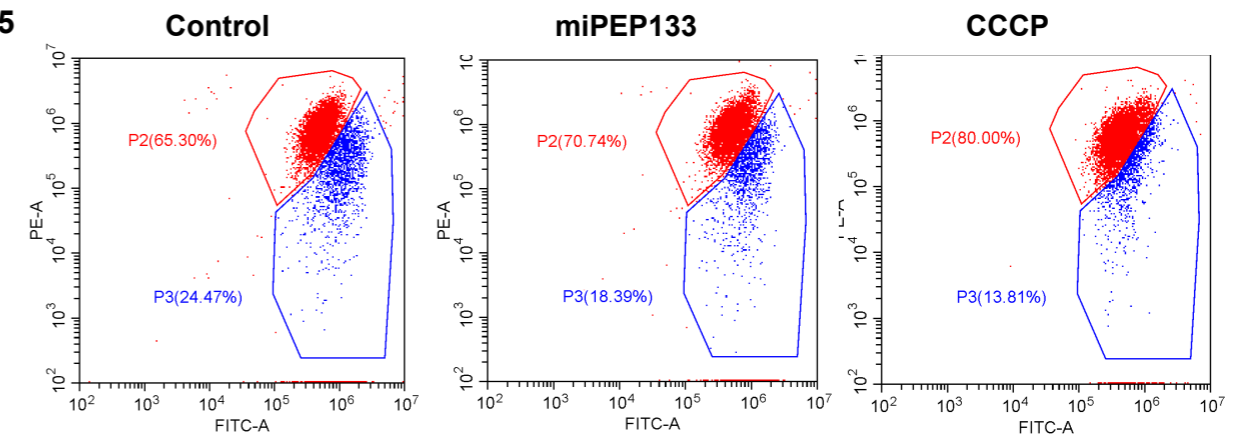
S3



S4



S5



**Figure S1. CRISPR/Cas9-mediated deletion of miPEP133 ORF.** Sequencing results and the predicted sequences of the wild-type miPEP133 (WT) and the two mutant protein products (MUT1 and MUT2)

**Figure S2. miPEP133 western blot of mouse tissue homogenates.**

**Figure S3. Nude mice with tumor xenografts formed by C666-1 cells.** Control group was injected with C666-1 cells expressing control lentiviral vector. miPEP133 group was injected with C666-1 cells expressing lentiviral vector containing miPEP133.

**Figure S4. JC-1 staining and flow cytometry analysis of HEK293 cells.** Cells in control group were transfected with empty plasmid vector. Cells in miPEP133 group were transfected with miPEP133 plasmid. Cells in CCCP group were the control HEK293 cells treated with 50μM CCCP for 5 min.

**Figure S5. JC-1 staining and flow cytometry analysis of HeLa cells.** Cells in control group were transfected with empty plasmid vector. Cells in miPEP133 group were transfected with miPEP133 plasmid. Cells in CCCP group were the control HeLa cells treated with 50μM CCCP for 5 min.