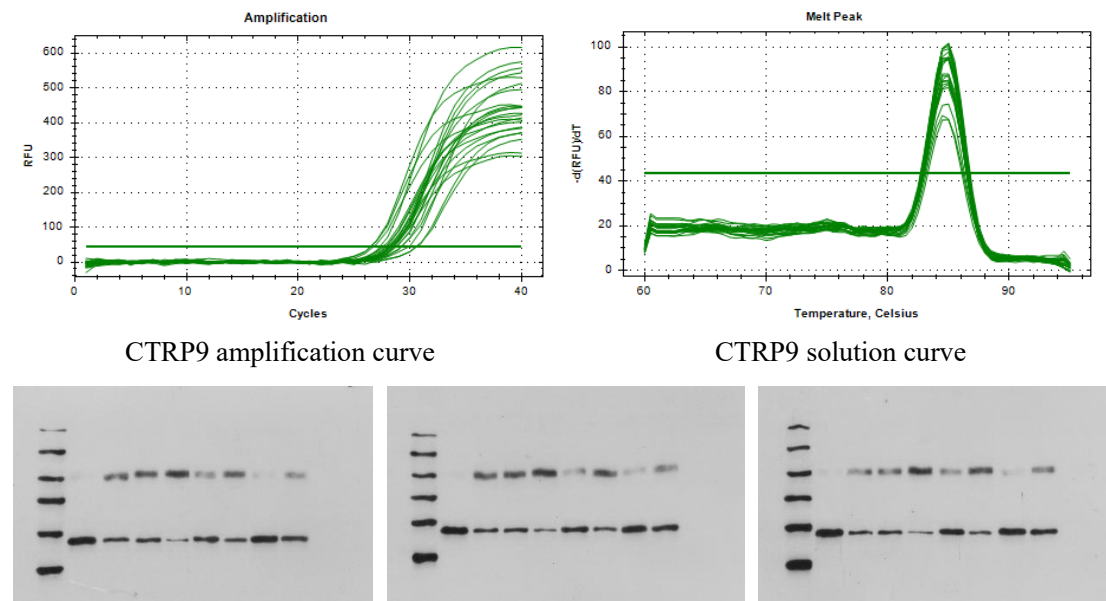


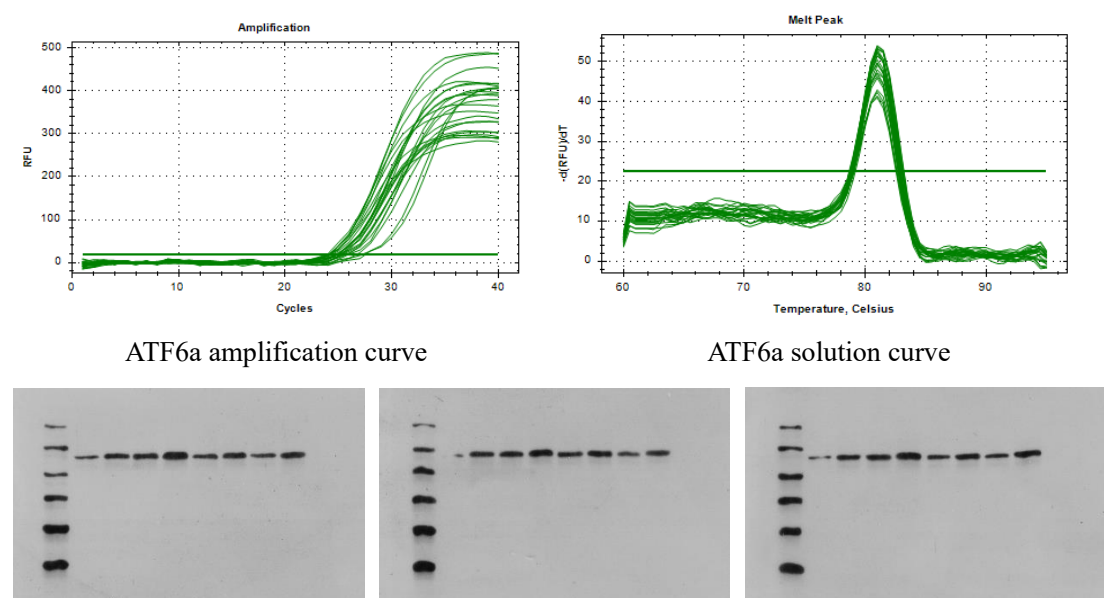
Fig. 4. Effects of CTRP9 on the expression of ERs marker proteins and lipid homeostasis regulatory factors in VSMC

(A) CTRP9 mRNA and protein expression levels.



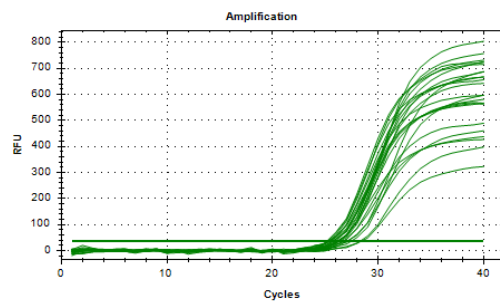
The Original blots/gels in turn are Control (Hcy-free), Hcy (100 $\mu\text{mol/L}$), Hcy+Si-NC, Hcy+Si-CTRTP9, Hcy+Si-CTRTP9+4-PBA (10 mmol/L, ERs inhibitor, MCE, HY-A0281), Hcy+GFP, Hcy+CTRTP9, Hcy+CTRTP9+TM (0.5 $\mu\text{g/mL}$, ERs agonist, MCE, HY-A0098) groups.

(B) ATF6a mRNA and protein expression levels.

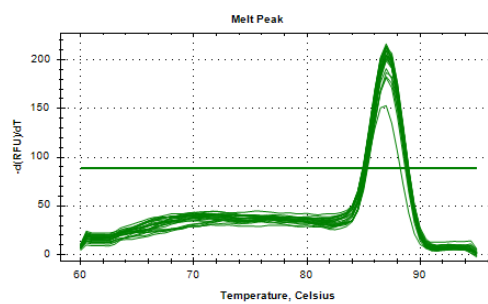


The Original blots/gels in turn are Control (Hcy-free), Hcy (100 $\mu\text{mol/L}$), Hcy+Si-NC, Hcy+Si-CTRTP9, Hcy+Si-CTRTP9+4-PBA (10 mmol/L, ERs inhibitor, MCE, HY-A0281), Hcy+GFP, Hcy+CTRTP9, Hcy+CTRTP9+TM (0.5 $\mu\text{g/mL}$, ERs agonist, MCE, HY-A0098) groups.

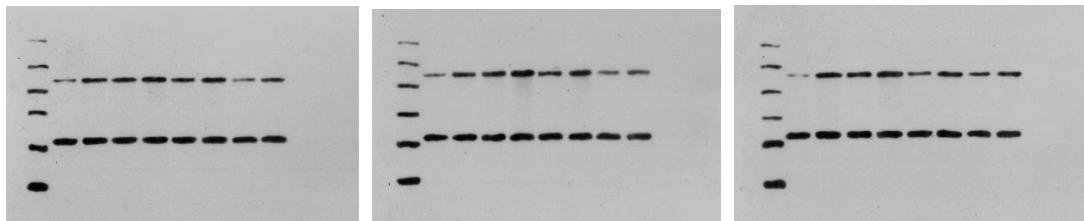
(C) CRP78 mRNA and protein expression levels.



CRP78 amplification curve

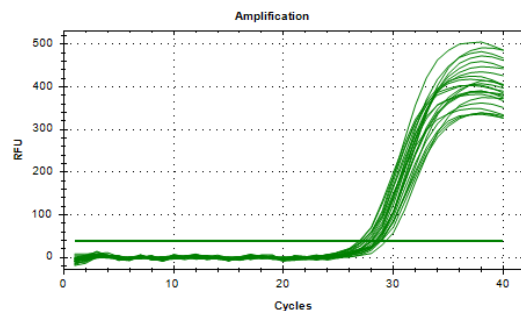


CRP78 solution curve

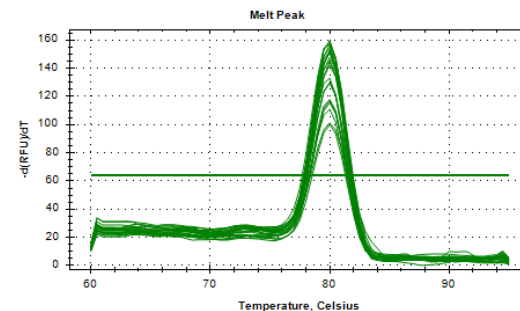


The Original blots/gels in turn are Control (Hcy-free), Hcy (100 $\mu\text{mol/L}$), Hcy+Si-NC, Hcy+Si-CTRP9, Hcy+Si-CTRP9+4-PBA (10 mmol/L, ERs inhibitor, MCE, HY-A0281), Hcy+GFP, Hcy+CTRP9, Hcy+CTRP9+TM (0.5 $\mu\text{g/mL}$, ERs agonist, MCE, HY-A0098) groups.

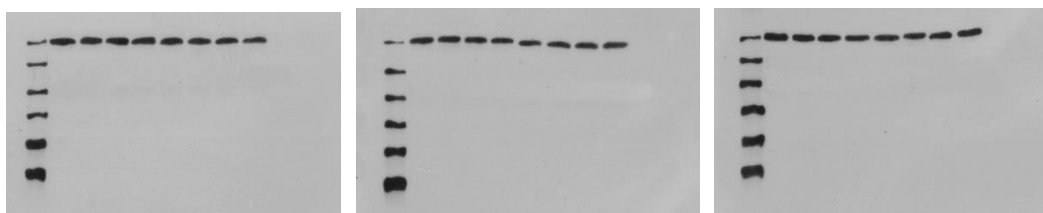
(D) Expression levels of IRE1 α mRNA and p-IRE1 α protein.



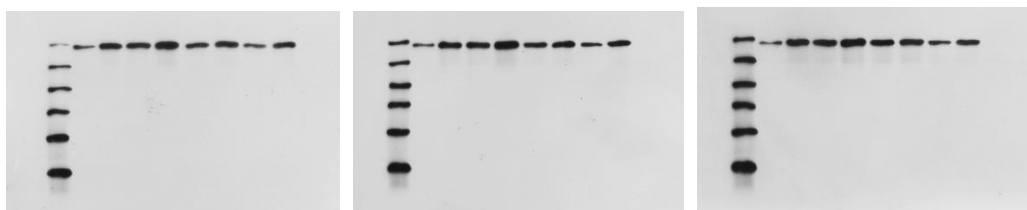
IRE1a amplification curve



IRE1a solution curve



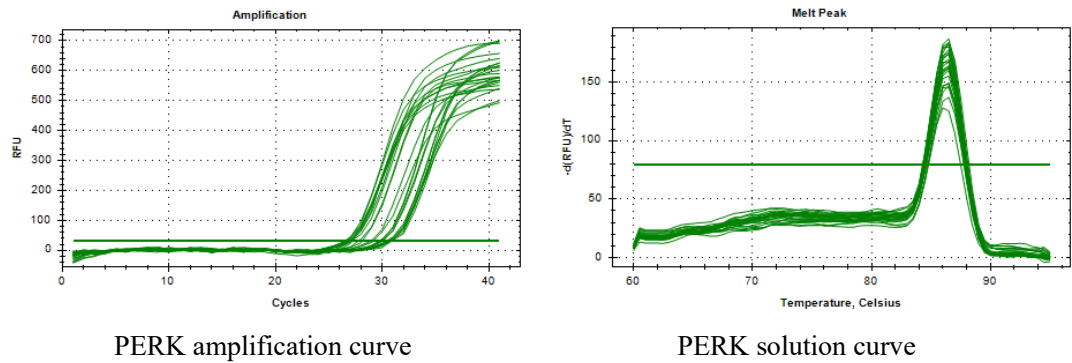
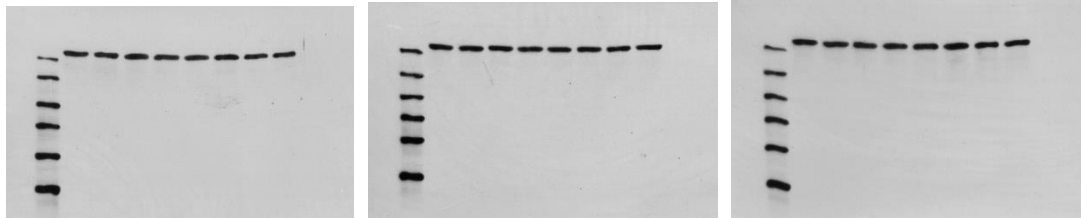
IRE1a protein expression in VSMCs.



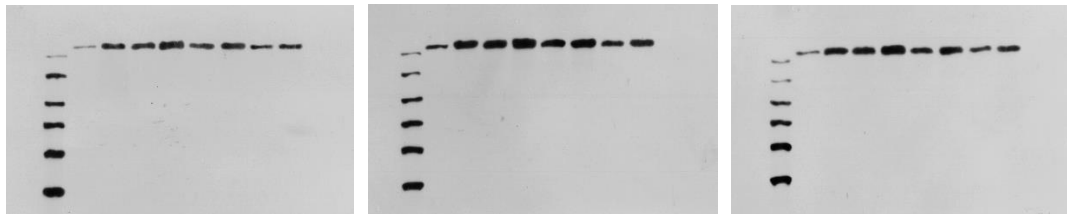
p-IRE1 α protein expression in VSMCs.

The Original blots/gels in turn are Control (Hcy-free), Hcy (100 μ mol/L), Hcy+Si-NC, Hcy+Si-CTRP9, Hcy+Si-CTRP9+4-PBA (10 mmol/L, ERs inhibitor, MCE, HY-A0281), Hcy+GFP, Hcy+CTRP9, Hcy+CTRP9+TM (0.5 μ g/mL, ERs agonist, MCE, HY-A0098) groups.

(E) Expression levels of PERK mRNA and p-PERK protein.



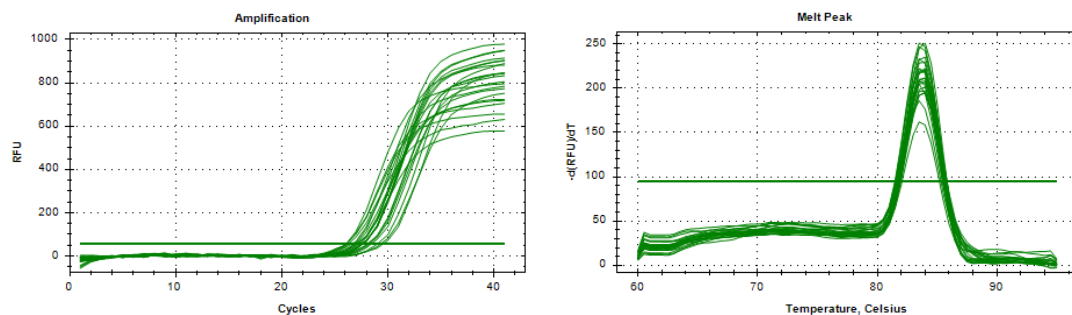
PERK protein expression in VSMCs.



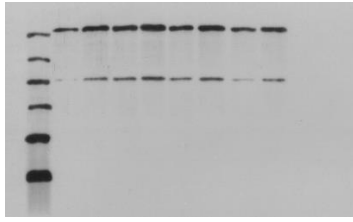
p-PERK protein expression in VSMCs.

The Original blots/gels in turn are Control (Hcy-free), Hcy (100 μ mol/L), Hcy+Si-NC, Hcy+Si-CTRP9, Hcy+Si-CTRP9+4-PBA (10 mmol/L, ERs inhibitor, MCE, HY-A0281), Hcy+GFP, Hcy+CTRP9, Hcy+CTRP9+TM (0.5 μ g/mL, ERs agonist, MCE, HY-A0098) groups.

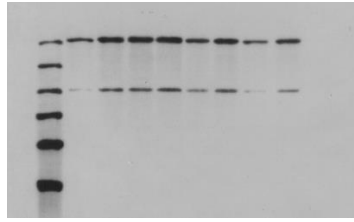
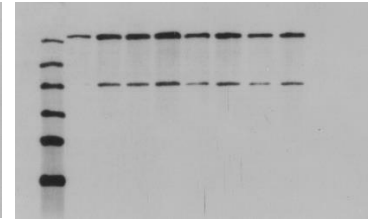
(F) SREBP1c mRNA and protein expression levels.



SREBP1c amplification curve

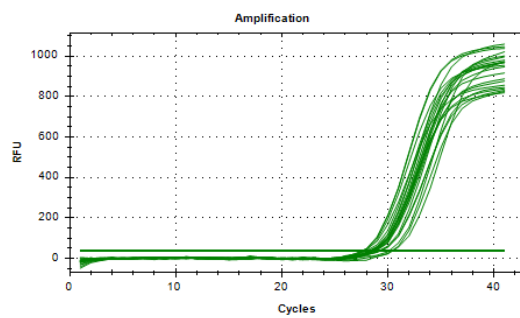


SREBP1c solution curve

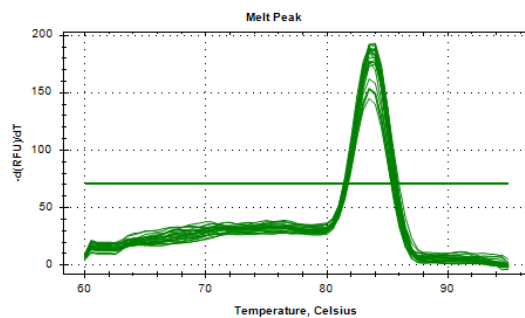


The Original blots/gels in turn are Control (Hcy-free), Hcy (100 $\mu\text{mol/L}$), Hcy+Si-NC, Hcy+Si-CTRP9, Hcy+Si-CTRP9+4-PBA (10 mmol/L, ERs inhibitor, MCE, HY-A0281), Hcy+GFP, Hcy+CTRP9, Hcy+CTRP9+TM (0.5 $\mu\text{g/mL}$, ERs agonist, MCE, HY-A0098) groups.

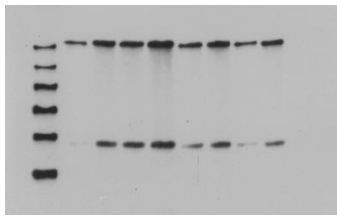
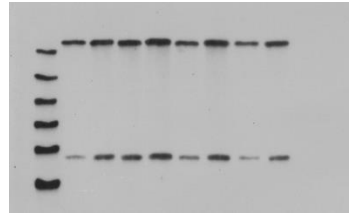
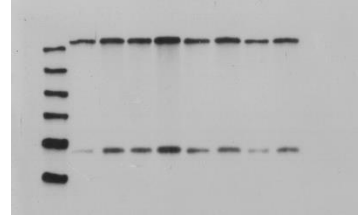
(G) SREBP2 mRNA and protein expression levels.



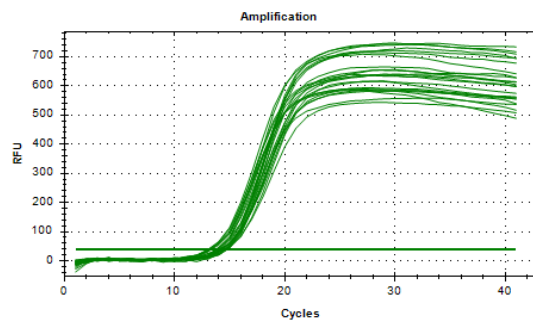
SREBP2 amplification curve



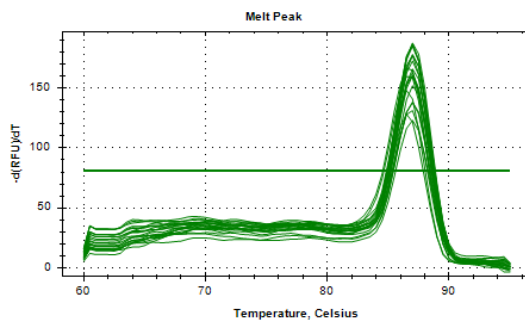
SREBP2 solution curve



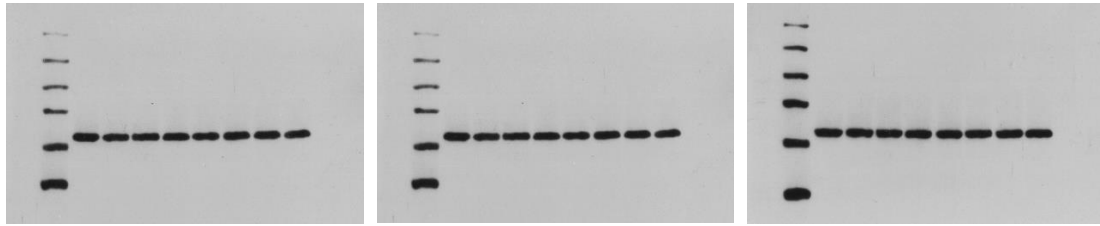
The Original blots/gels in turn are Control (Hcy-free), Hcy (100 $\mu\text{mol/L}$), Hcy+Si-NC, Hcy+Si-CTRP9, Hcy+Si-CTRP9+4-PBA (10 mmol/L, ERs inhibitor, MCE, HY-A0281), Hcy+GFP, Hcy+CTRP9, Hcy+CTRP9+TM (0.5 $\mu\text{g/mL}$, ERs agonist, MCE, HY-A0098) groups.



β-actin amplification curve



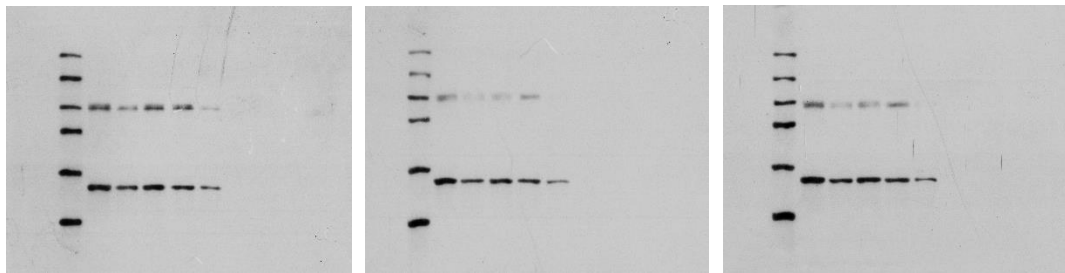
β-actin solution curve



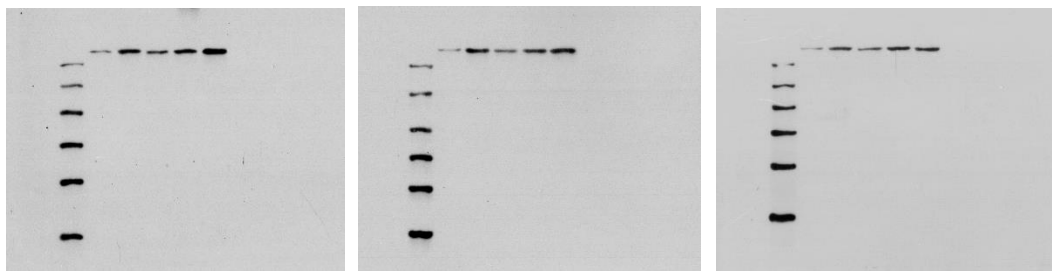
The Original blots/gels of β -actin.

Fig.5 Hypermethylation of CTRP9 promoter induced by Hcy via DNMT1

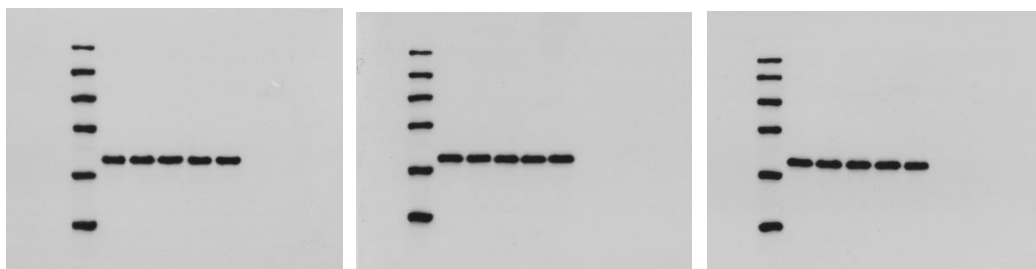
(D) Expression changes of CTRP9 and DNMT1 in VSMC of each group.



CTRP9 protein expression in VSMCs.



DNMT1 protein expression in VSMCs.



The Original blots/gels of β -actin.

The Original blots/gels in turn are Control, Hcy, Hcy+5-Azc (5 μ mol/L, MCE, HY-10586), Hcy+Ad-GFP, and Hcy+Ad-DNMT1 groups.