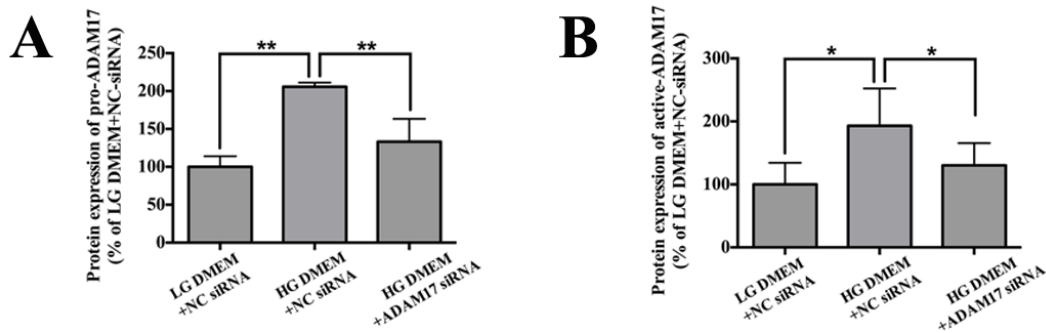


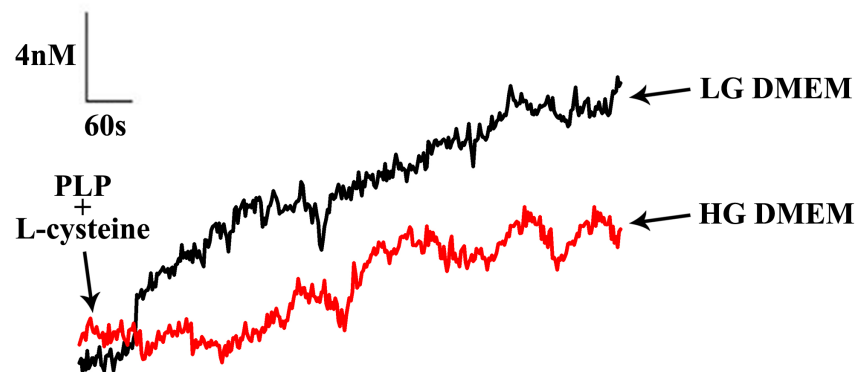
## Supplements

Table.S1. The siRNA sequences for CSE, 3-MST, ADAM17

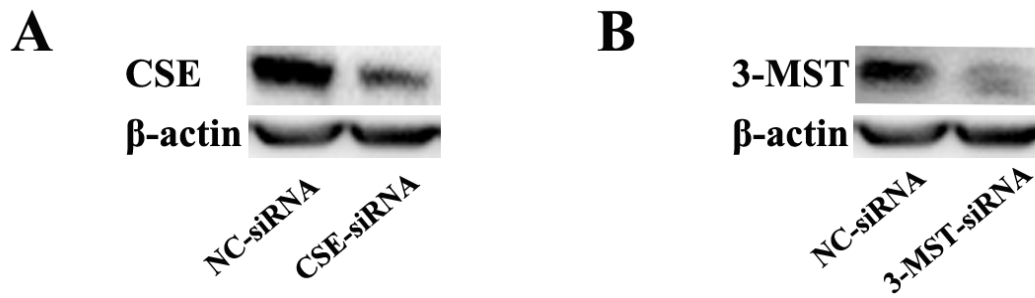
Target gene		SiRNA sequence
CSE	Sense(5'–3')	CUGCCAUGACCUGCUAAAtt
	Acti-sense(5'–3')	UUUAGCAGGUCAAUGGCAGtt
3-MST	Sense(5'–3')	GCUCAGUAAACAUCCCGUUt
	Acti-sense(5'–3')	AACGGGAUGUUUACUGAGCca
ADAM17	Sense(5'–3')	GGACCAAGGAGGAAAGUAUtt
	Acti-sense(5'–3')	AUACUUUCCUCCUUGGUCCtt



**Fig.S1.** The effects of high glucose on pro-ADAM17(A) and active-ADAM17(B) expression were not occurred in 3T3-L1 adipocytes transfected with ADAM17-siRNA. The protein expression of ADAM17 in 3T3-L1 adipocytes were determined by western-blotting as described in materials and methods. Data were presented as mean  $\pm$  SEM (n=3 cultures). \*P<0.05, \*\*P<0.01 vs indicated.



**Fig.S2.** The effects of high glucose on real-time H<sub>2</sub>S production in adipocyte. The real-time H<sub>2</sub>S production rate was significantly decreased in adipocyte treated with high glucose. The real-time H<sub>2</sub>S production in adipocyte was determined by using aminiaturized H<sub>2</sub>S micro-respiration sensor.



**Fig.S3.** Representative protein bands of CSE(A) and 3-MST(B) in 3T3-L1 adipocytes transfected with CSE-siRNA and 3-MST-siRNA. The protein expression of CSE and 3-MST in 3T3-L1 adipocytes were determined by western-blotting as described in materials and methods.