Supplemental Figure 7

A

PAR
β-actin

PAR/β-actin

NaHS (10 µM)
PD98059 (50 µM)

B

Comet tail length (µM)

NaHS (10 µM)
MMS (1 mM)
PD98059 (50 µM)

C D

MEK1-siRNA
NaHS (10 µM)

E

Comet tail length (µM)

Neg-siRNA
MEK1-siRNA
ERK1/2-siRNA
NaHS (10 µM)
MMS (1 mM)
NaHS (10 µM)
Supplementary Figure S7. Inhibition of ERK activation reversed the protective role of H₂S on DNA damage.  (A), PD98059 reversed H₂S-stimulated PAR levels.  HUVEC cells were incubated with 10 µM NaHS, 1 mM MMS, and/or 50 µM PD98059 for 2 hours.  * p=0.037 versus control group; # p=0.002 versus NaHS group.  (B), PD98059 abolished the beneficial effect of H₂S on DNA damage repair.  HUVEC cells were incubated with 10 µM NaHS, 1 mM MMS, and/or 50 µM PD98059 for 2 hours.  More than 50 comet tails were measure respectively.  * p<0.0001; # p<0.0001.  All the data were from three independent experiments.  (C), Knockdown of MEK1 attenuated NaHS-stimulated PAR level.  HUVECs were transfected with negative siRNA (Neg-siRNA) or MEK1 siRNA at 50 nM for 48 hours and then treated with NaHS (10 M) for 2 hours.  (D), Knockdown of ERK1/2 attenuated NaHS-stimulated PAR level.  HUVECs were transfected with negative siRNA (Neg-siRNA) or ERK1/2 siRNA at 50 nM for 48 hours and then treated with NaHS (10 M) for 2 hours.  (E), Knockdown of MEK1 or ERK1/2 reversed NaHS-protected DNA damage.  *, p=0.0027; #, p=0.0031.