Supplementary Material

**Table S1.** **List of oliGonucleotide primer pairs used in qRT-PCR and analysis.**

|  |  |  |
| --- | --- | --- |
| TarGet Gene | Forward primer (5'-3') | Reverse primer(5'-3') |
| COX-2 (H) | CTGGCGCTCAGCCATACAG | CGCACTTATACTGGTCAAATCCC |
| NOX-1 (H) | TTGTTTGGTTAGGGCTGAATGT | GCCAATGTTGACCCAAGGATTT |
| GPX4 (H) | GAGGCAAGACCGAAGTAAACTAC | CCGAACTGGTTACACGGGAA |
| TFRC (H) | ACCATTGTCATATACCCGGTTCA | CAATAGCCCAAGTAGCCAATCAT |
| SLC7A11 (H) | TCTCCAAAGGAGGTTACCTGC | AGACTCCCCTCAGTAAAGTGAC |
| ACSL4 (H) | CATCCCTGGAGCAGATACTCT | TCACTTAGGATTTCCCTGGTCC |
| CSE (H) | AAAGACGCCTCCTCACAAGG | AAGGCAATTCCTAGTGGGATTTC |
| GAPDH (H) | CTGGGCTACACTGAGCACC | AAGTGGTCGTTGAGGGCAATG |

H: human

图表

描述已自动生成

**Figure S1. GPX4 expression and VSMCs specific phenotype are increase in the aortal media of SHR and hypertensive patients.** The statistical graph of GPX4, CXCL2 and AKR1C2 immunofluorescentin the arterial media of SHR **(A)**. The statistical graph of GPX4, CXCL2 and AKR1C2 immunofluorescentin human normotension (NTN) and hypertension (HTN) internal mammary arteries **(B)**. \*\**P*<0.01, \*\*\**P*<0.001.

图表, 图示, 示意图

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**Figure S2. HHP induced oxidative stress and lipid peroxidation.** The statistical graph of ROS **(A)**, MitoSOX **(B)** and lipid peroxidation **(C)** of HASMCs under HHP condition. \*\**P*<0.01, \*\*\**P*<0.001.

图片包含 图示

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**Figure S3. CSE/H2S rescued HHP-induced ferroptosis.** The effect of exogenous CSE/H2S increase (NaHS administration) on ferroptosis under HHP condition. The statistical graph of GPX4 **(A)**, Fe2+ **(B)**, ROS **(C)**, mitochondrial ROS **(D)** and BODIPY-C11 **(E)** immunofluorescent. The effect of endogenous CSE/H2S decrease (CSE knockout) in ferroptosis under HHP condition. The statistical graph of GPX4 **(F)**, Fe2+ **(G)**, ROS **(H)**, mitochondrial ROS **(I)** and BODIPY-C11 **(J)** immunofluorescent. \*\*\**P*<0.001.

图表, 条形图

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**Figure S4. NaHS rescued RLS3-induced ferroptosis.** The statistical graph of GPX4 The statistical graph of Figure 6A-E **(A-E)**. \**P*<0.05, \*\**P*<0.01, \*\*\**P*<0.001.