

Supplementary Information

Comparison of Selenium Nanoparticles and Sodium Selenite on the Alleviation of Early Atherosclerosis by Inhibiting Endothelial Dysfunction and Inflammation in Apolipoprotein E-Deficient Mice

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Table S1: Average food intake (g/day/mouse). The results were expressed as mean \pm SD.

Age (week)	Model	Na ₂ SeO ₃	CS-SeNPs
9	2.84 \pm 0.32	2.75 \pm 0.18	2.93 \pm 0.16
10	3.26 \pm 0.11	3.07 \pm 0.16	3.12 \pm 0.17
11	3.53 \pm 0.16	3.28 \pm 0.18	3.12 \pm 0.21
12	3.21 \pm 0.18	2.71 \pm 0.18	2.79 \pm 0.18
13	3.39 \pm 0.16	2.98 \pm 0.12	2.90 \pm 0.29
14	3.04 \pm 0.13	2.76 \pm 0.11	3.08 \pm 0.17
15	2.84 \pm 0.11	2.37 \pm 0.13	2.49 \pm 0.13
16	3.42 \pm 0.40	2.91 \pm 0.16	3.02 \pm 0.11
17	3.15 \pm 0.20	2.65 \pm 0.15	2.61 \pm 0.19
18	2.89 \pm 0.18	2.45 \pm 0.15	2.41 \pm 0.27

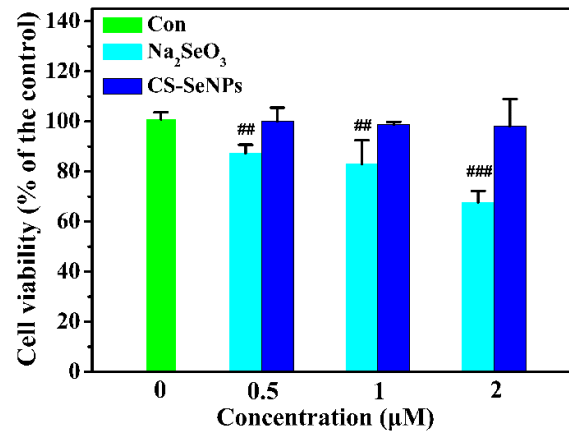


Figure S1: Effect of CS-SeNPs and Na₂SeO₃ on the viability of human endothelial cell line EA.hy926. Cells were treated with indicated concentrations of CS-SeNPs or Na₂SeO₃ for 24 h. The cell viability was determined using the MTT assay (mean \pm SD, n = 4). ^{##} P < 0.01, ^{###} P < 0.001, compared with control cells.

Table S2: Primers sequences used for the detection of related gene expression in the aorta of

ApoE ^{-/-} mice by qPCR		
Gene	Primer sequence 5' to 3'	Product length (bp)
TNF- α	F: ACCCTCACACTCAGATCATCTT R: GGTGTCTTGAGATCCATG	125
IL-6	F: CCTTCCTACCCCAATTTCCAA R: AGATGAATTGGATGGTCTTGGTC	89
IL-1 β	F: TGCCACCTTTTGACAGTGATG R: GAGTGATACTGCCTGCCTGA	125
MIP-1 α	F: CCTCTGTACCTGCTCAACA R: GATGAATTGGCGTGGAATCT	163
MCP-1	F: CCACTCACCTGCTGCTACTCAT R: TGGTGATCCTCTTGTAGCTCTCC	76
E-selectin	F: GTGAAGCTTTGACCCACCCT R: ATTCTGAGCTCCAACTCGCC	125
VCAM-1	F: CTGGGAAGCTGGAACGAAGT R: GCCAAACACTTGACCGTGAC	115
ICAM-1	F: GTGATGCTCAGGTATCCATCCA R: CACAGTTCTCAAAGCACAGCG	213
β -actin	F: GATCAAGATCATTGCTCCTCCT R: AGGGTGTAACACGCAGCTCA	183

Table S3: Primers sequences used for the detection of related gene expression in human ECs by

qPCR

Gene	Primer sequence 5' to 3'	Product length (bp)
TNF- α	F: GTGACAAGCCTGTAGCCCATGTT R: TTATCTCTCAGCTCCACGCCATT	112
IL-6	F: ACTCACCTCTTCAGAACGAATTG R: CCATCTTTGGAAGGTTTCAGGTTG	149
IL-1 β	F: ATGATGGCTTATTACAGTGGCAA R: GTCGGAGATTTCGTAGCTGGA	132
MCP-1	F: GCTCATAGCAGCCACCTTCATTC R: GGACACTTGCTGCTGGTGATTC	147
iNOS	F: GATCAAAAAGTGGGGCAGCG R: CTCATCTGGAGGGGTAGGCT	157
E-selectin	F: GCACAGCCTTGTCCTCAACC R: ACCTCACCAAACCCCTTCG	228
VCAM-1	F: GGTATCTGCATCGGGCCTC R: TAAAAGCTTGAGAAGCTGCAAACA	193
ICAM-1	F: GGAACAACCGGAAGGTGTATG R: TGCCAGTTCCACCCGTTCT	140
GADPH	F: CACCAGGGCTGCTTTTAACTCTGGTA R: CCTTGACGGTGCCATGGAATTTGC	131