

**Supplementary Table 1** Primer sequences of genes for cDNA amplification

<i>Gene</i>	<i>Primer sequence</i>
SIRT3	Forward Primer: 5' –GGGGGCCGGCCGGTGGAGGAAGCAGTGAGAA – 3' Reverse Primer: 5' –GGGGGCGCGCCAGGTGAAGAAGCCATAGTC – 3'
SOD2	Forward Primer: 5' –GGGGGCCGGCCG AGAGCAGCGGTTCGTGTA– 3' Reverse Primer: 5' –GGGGGCGCGCC ATGTGGCCGTGAGTGAG – 3'

**Supplementary Table 2** Primer sequences of genes for site-directed mutagenesis of SOD2

<i>Gene</i>	<i>Primer sequence</i>
SOD2(K53Q)	Forward Primer: 5' –GCAGCTGCACCACAGCCAGCACCATGCGGCCTA – 3' Reverse Primer: 5' –TAGGCCGCATGGTGTCTGGCTGTGGTGCAGCTGC – 3'
SOD2(K68Q)	Forward Primer: 5' –CCAACGCCACCGAGGAGCAGTACCACGAGGCTCTG – 3' Reverse Primer: 5' –CAGAGCCTCGTGGTACTGCTCCTCGGTGGCGTTGG – 3'
SOD2(K68R)	Forward Primer: 5' –AACGCCACCGAGGAGAGGTACCACGAGGCTCTG– 3' Reverse Primer: 5' –CAGAGCCTCGTGGTACCTCTCCTCGGTGGCGTT – 3'
SOD2(K89Q)	Forward Primer: 5' –CTCTTCAGCCTGCACTGCAGTTCAATGGTGGGGGA– 3' Reverse Primer: 5' –TCCCCACCATTGAACTGCAGTGCAGGCTGAAGAG– 3'