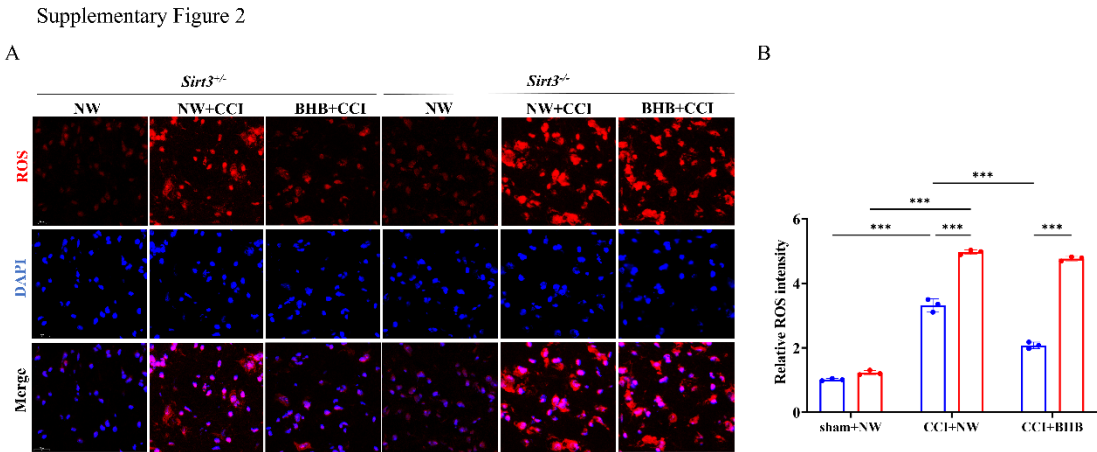


Supplementary Figure 1 (A) DNA gel electrophoresis to identify *Sirt3*-deficient mice. (B) Western blotting of *Sirt3*^{+/-} and *Sirt3*^{-/-} mice in spinal cord and liver



Supplementary Figure 2 (A) Mouse spinal cord ROS fluorescence staining (red), blue for DAPI. (B) Results of ROS fluorescence staining in mouse spinal cord (n=3). Data are shown as mean $\pm$ SEM; Two-way ANOVA with Sidak's test for multiple comparisons was performed for all other parameters. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table S1. Sequences of identification primers for knockout mice.

Gene	Forward primer (5' $\rightarrow$ 3')	Reverse primer (5' $\rightarrow$ 3')
SIRT3 Wild type	CTTCTGCGGCTCTATA CACAG	TGCAACAAGGCTTTATCTTCC
SIRT3 Mutant	TACTGAATATCAGTGGAACG	TGCAACAAGGCTTTATCTTCC

Table S2. Primer sequences.

Gene	Forward primer (5' $\rightarrow$ 3')	Reverse primer (5' $\rightarrow$ 3')
TNF- α	CGCTCTTCTGTCTACTGAACTTCGG	GTGGTTTGTGAGTGTGAGGGTCTG

IL-6	TTCTTGGGACTGATGCTGGTGAC	CTGTTGGGAGTGGTATCCTCTGTG
IL-1 β	CTCGCAGCAGCACATCAACAAG	CCACGGGAAAGACACAGGTAGC
β -actin	TATGCTCTCCCTCACGCCATCC	GTCACGCACGATTTCCCTCTCAG
GAPDH	AGAAGGTGGTGAAGCAGGCATC	CGAAGGTGGAAGAGTGGGAGTTG
UCP2	AAGGTCCGCTTCCAGGCTCAG	ATTACGGGCAACATTGGGAGAAGTC
Pparg	GCCAAGGTGCTCCAGAAGATGAC	GTGAAGGCTCATGTCTGTCTCTGTC
PGC1 α	TGAGAATGGATATACTTTACGCAGGTC	TCGTCTGAGTTGGTATCTAGGTCTG
mtDNA	CCTATCACCCCTTGCCATCAT-3	GAGGCTGTTGCTTGTGTGAC
ncDNA	ATGGAAAGCCTGCCATCATG	TCCTTGTTGTTTCAGCATCAC
ND1	CTAGCAGAAACAAACCGGGC	CCGGCTGCGTATTCTACGTT
