

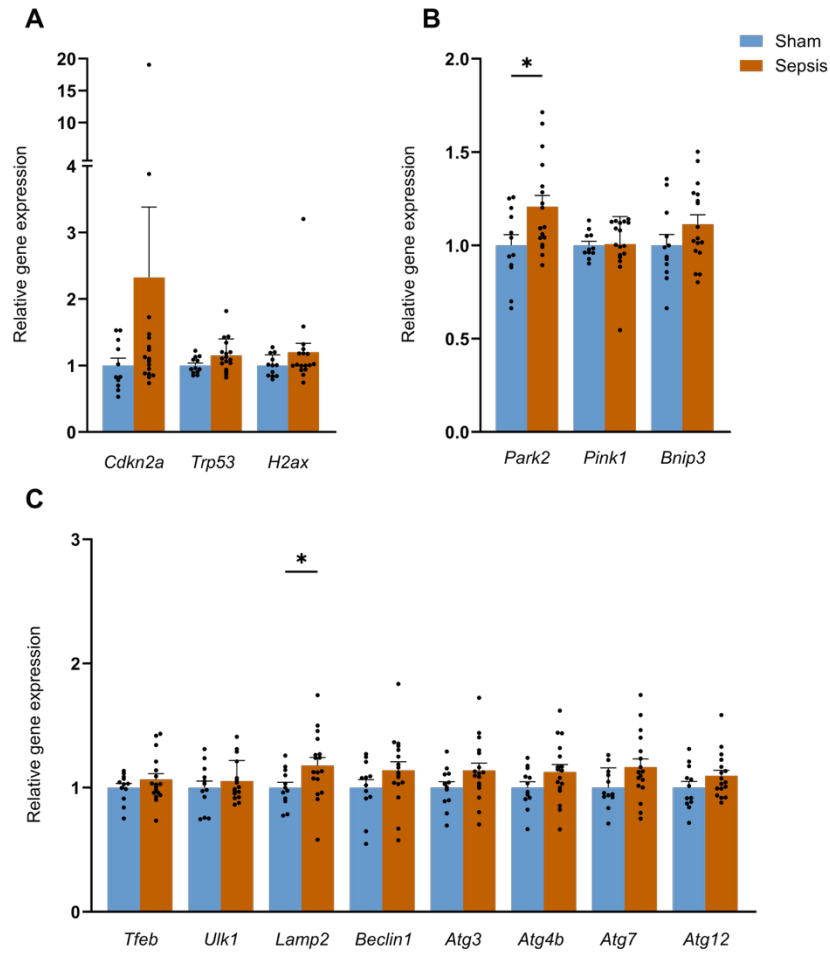


Figure S1. Analysis of senescence-, mitophagy- and autophagy-related genes. **A**, mRNA levels of *Cdkn2a*, *Trp53*, and *H2ax* by Quantigene in *quadriceps* for Sham (n=12) and Sepsis (n=17). **B**, mRNA levels of *Park2*, *Pink1*, and *Bnip3* by Quantigene in *quadriceps* for Sham (n=12) and Sepsis (n=17). **C**, mRNA levels of *Tfeb*, *Ulk1*, *Lamp2*, *Beclin1*, *Atg3*, *Atg4b*, *Atg7* and *Atg12* by Quantigene in *quadriceps* for Sham (n=12) and Sepsis (n=17). Data are expressed as mean with SEM. Statistical comparisons between Sham vs Sepsis (*). Data were analysed with a Mann-Whitney test (**A**, **B**) or with a t-test (**B,C**), according to the results of the normality test. * $p < 0.05$.

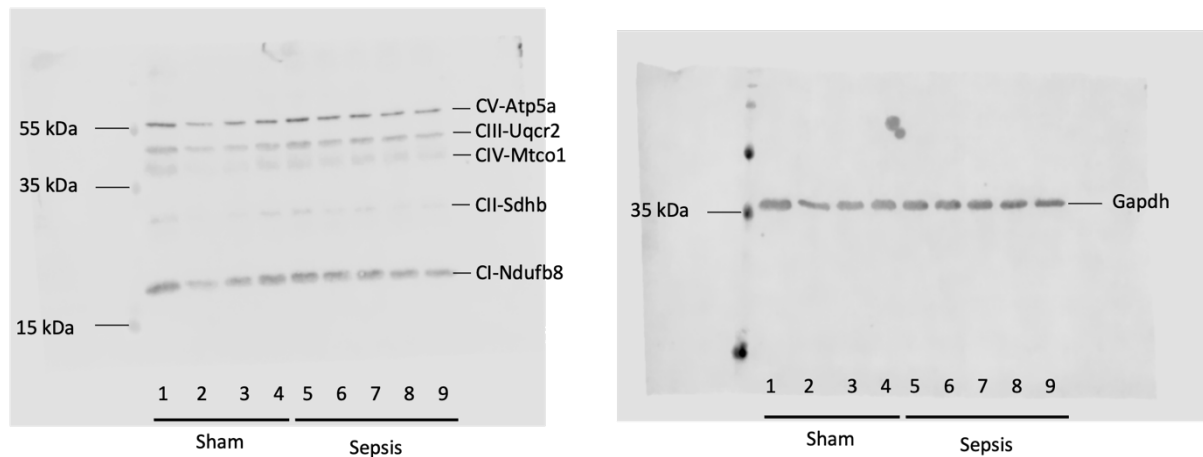


Figure S2. Full-length western blot of OXPHOS (Ndufb8, Sdhlb, Uqcrl2, Mtco1, Atp5a-left) and Gapdh (right) with molecular weight markers indicated, corresponding to Figure 3F in the main manuscript. Lanes correspond to Sham and Sepsis groups as shown. Exposure time: 2 min.

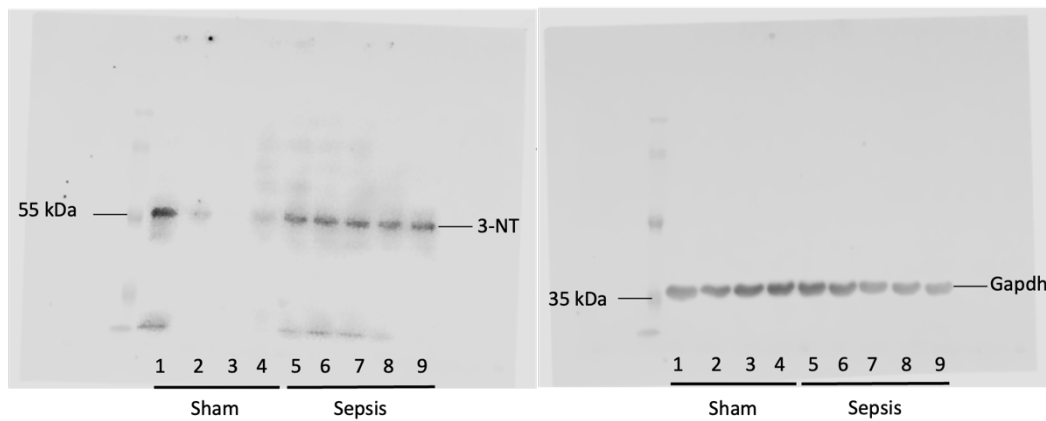


Figure S3. Full-length western blot of 3-Nitrotyrosine (left) and Gapdh (right) with molecular weight markers indicated, corresponding to Figure 3I in the main manuscript. Lanes correspond to Sham and Sepsis groups as shown. Exposure time: 2 min.

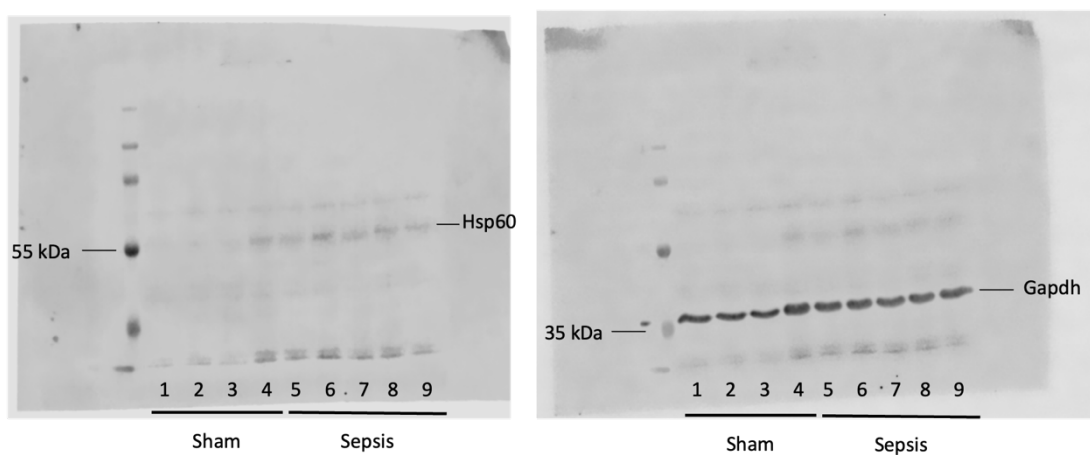


Figure S4. Full-length western blot of Hsp60 (left) and Gapdh (right) with molecular weight markers indicated, corresponding to Figure 3J in the main manuscript. Lanes correspond to Sham and Sepsis groups as shown. Exposure time: 2 min.

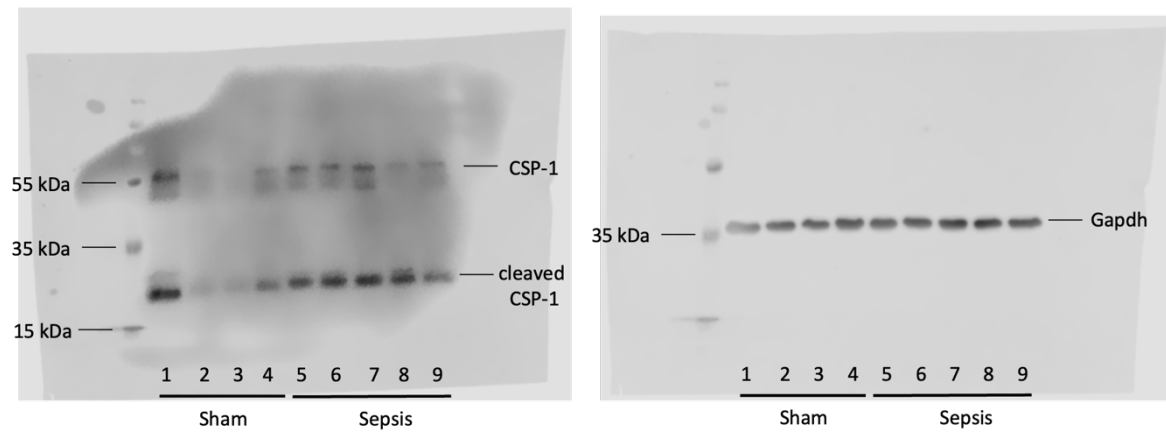


Figure S5. Full-length western blot of cleaved CSP-1 (left) and Gapdh (right) with molecular weight markers indicated, corresponding to Figure 4B in the main manuscript. Lanes correspond to Sham and Sepsis groups as shown. Exposure time: 2 min.

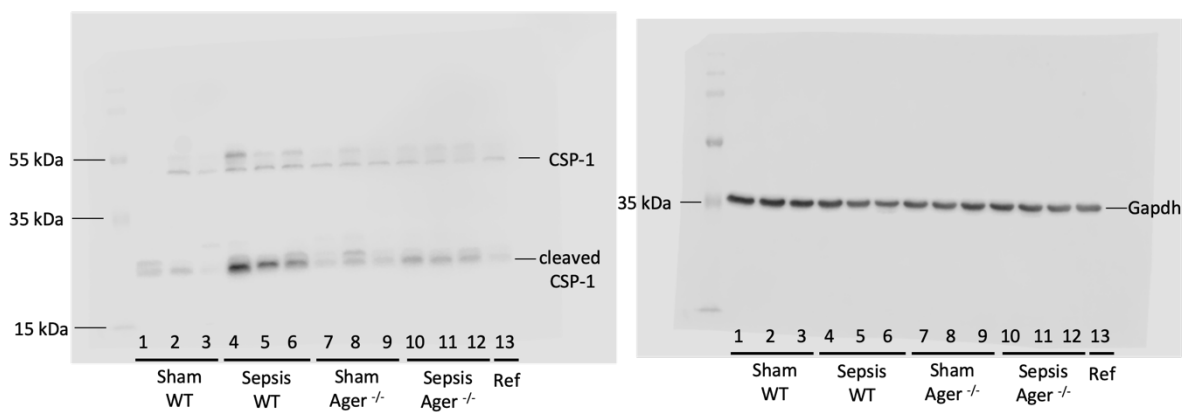


Figure S6. Full-length western blot of cleaved-CSP1 (left) and Gapdh (right) with molecular weight markers indicated, corresponding to Figure 6B in the main manuscript. Lanes correspond to Sham WT, Sepsis WT, Sham Ager^{-/-} and Sepsis Ager^{-/-} groups as shown. Exposure time: 2 min.

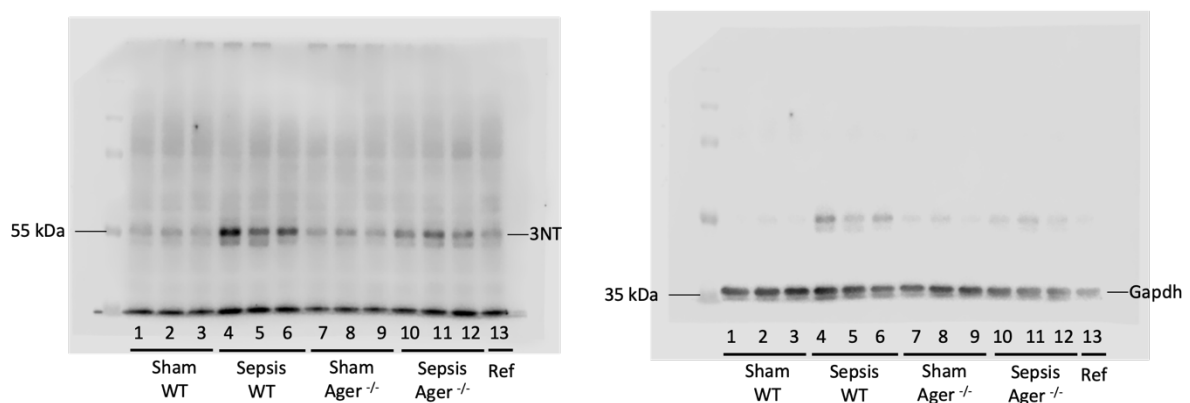


Figure S7. Full-length western blot of 3-NT (left) and Gapdh (right) with molecular weight markers indicated, corresponding to Figure 6C in the main manuscript. Lanes correspond to Sham WT, Sepsis WT, Sham Ager^{-/-} and Sepsis Ager^{-/-} groups as shown. Exposure time: 2 min.

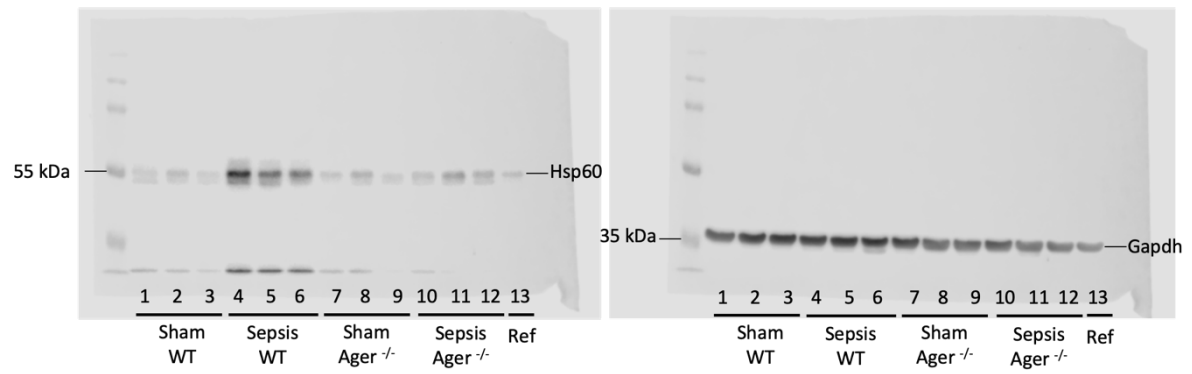


Figure S8. Full-length western blot of Hsp60 (left) and Gapdh (right) with molecular weight markers indicated, corresponding to Figure 6D in the main manuscript. Lanes correspond to Sham WT, Sepsis WT, Sham Ager^{-/-} and Sepsis Ager^{-/-} groups as shown. Exposure time: 2 min.

Target	Reference	Supplier	Dilution
Primary antibody			
OXPHOS	stn-19467	Abcam	1/3000
3-NT	ab-61392	Abcam	1/3000
Hsp60	sc-59567	Santa Cruz Biotechnology	1/3000
Csp-1	AG-20B-0042-C100	AdipoGen Life Sciences	1/3000
MHC IIa	SC-71	DSHB	1/100
MHC IIb	BF-F3	DSHB	1/50
MHC I	BA-D5	DSHB	1/50
Laminin	4h8-2	DSHB	1/100
Secondary Antibody			
Mouse IgG 700	926-68170	Li-Cor	1/10000
Mouse IgG 800	925-32212	Li-Cor	1/10000
Rabbit IgG 700	926-68071	Li-Cor	1/10000
Rabbit IgG 800	827-08365	Li-Cor	1/10000
Mouse IgG1 (Alexa Fluor 488)	A-21121	Thermofisher	1/250
Mouse IgM (Alexa Fluor 555)	A-21426	Thermofisher	1/250
Mouse IgG2b (Alexa Fluor 647)	A-21242	Thermofisher	1/250
Rat IgG (Alexa Fluor 555)	A-48261	Thermofisher	1/250
Mouse IgG-HRP-linked	7076	Cell signaling	1/5000
Rabbit IgG-HRP-linked	7074	Cell signaling	1/5000

Table S1. Antibodies used in western blot and immunofluorescence experiments.

	Forward sequence	Reverse sequence	Accession number
<i>Nd1</i>	TCCGAGCATCTTATCCACGC	GTATGGTGGTACTCCCGCTG	NC_005089.1
<i>Ppia</i>	ACACGCCATAATGGCACTGG	CAGTCTTGGCAGTGCAGAT	NM_008907.2

Table S2. Primer sequences used for qPCR.