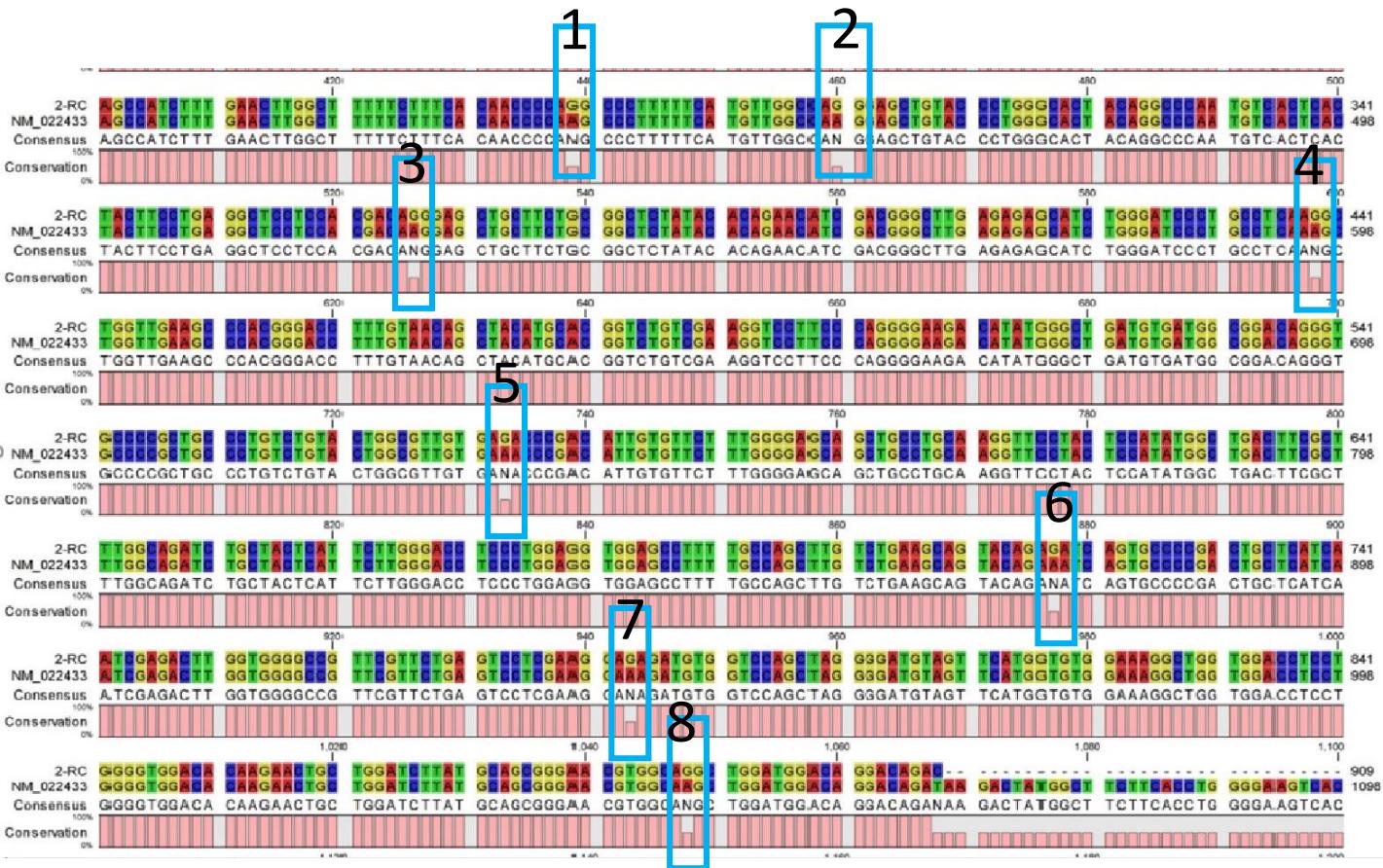


Supplementary information

Ubiquitin-dependent rapid degradation conceals a cell-protective function of cytoplasmic SIRT3 against oxidative stress.

Takashi Hayashi, Takashi Matsushita, Shin Hisahara, Naotoshi Iwahara, Atsushi Kuno, Risa Kunimoto, Ryusuke Hosoda, Masaya Tanno, Shun Shimohama, Yoshiyuki Horio

Supplementary Figure 1. Nucleotide and amino acid sequence of SIRT3ct-8KR.



SIRT3ct **SIRT3ct-8KR**

AAA (Lys) → AGA (Arg)
AAG (Lys) → AGG (Arg)

Amino acid sequence of SIRT3ct-8KR mutant

MVGAG ISTPS GIPDF RSPGS GLYSN LQQYD IPYPE AIFEL
GFFFH NPRPF FMLR ELYPG HYRPN VTHYF LRLLH DRELL
LRLYT QNIDG LERAS GIPAS RLVEA HGTFV TATCT VCRSS
FPGED IWADV MADRV PRCAV CTGVV RPDIV FFGEQ LPARF
LLHMA DFALA DLLLI LGTSI EVEPF ASLSE AVQRS VPRLL
INRDL VGPFV LSPRR RDVVQ LGDVV HGVER LVDLL GWTQE
LLDLM QRERG RLDGQ DR

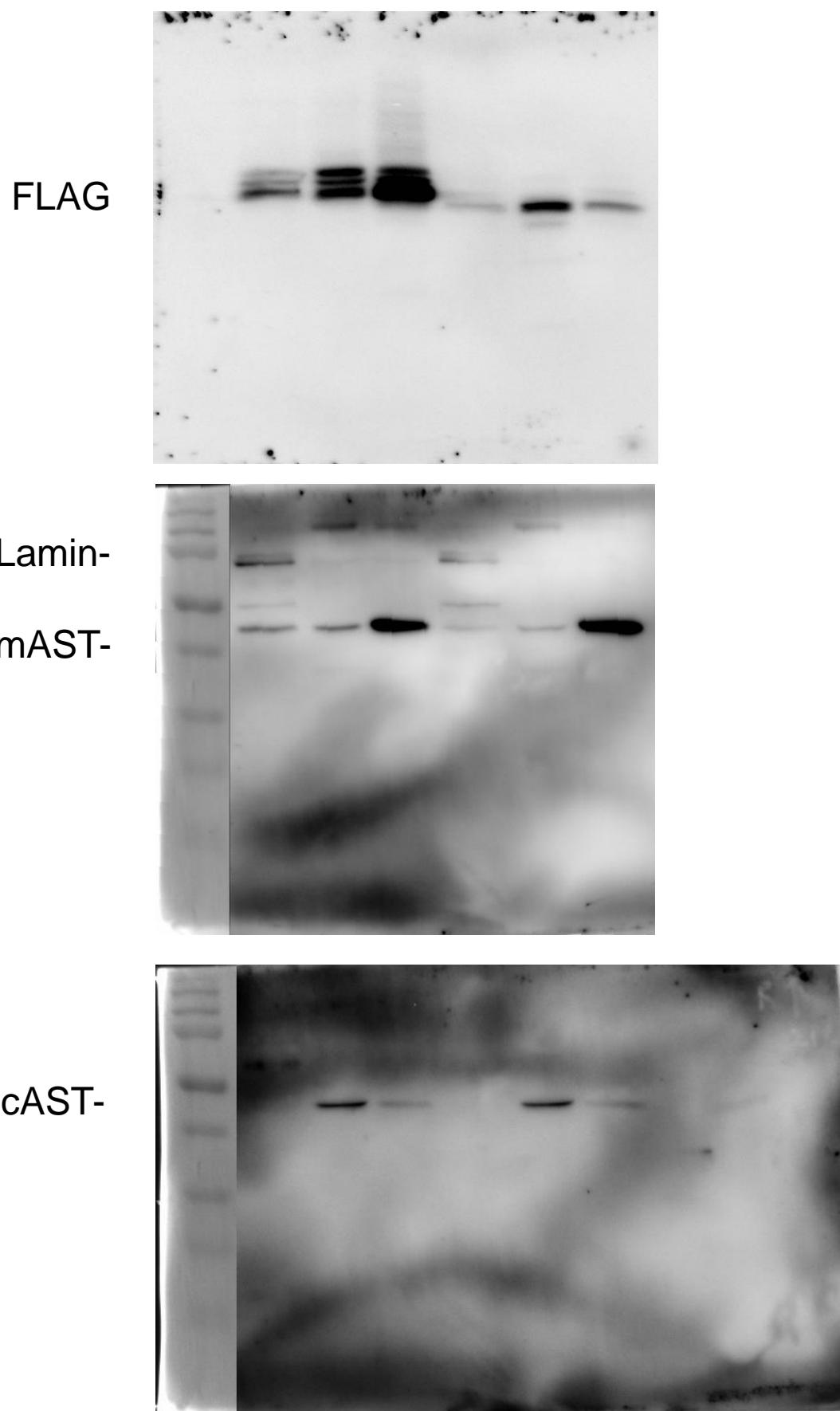
Supplementary Figure 2. Amino acid sequence of SIRT3ct.

Amino acid sequence of SIRT3ct

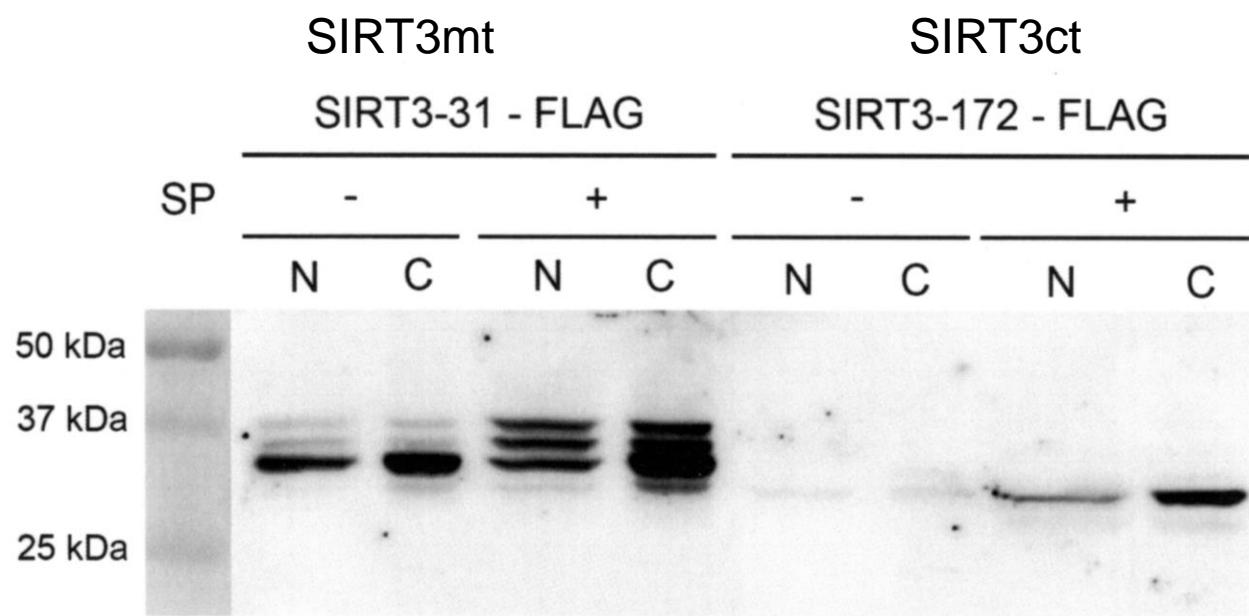
MVGAG ISTPS GIPDF RSPGS GLYSN
LQQYD IPYPE AIFEL GFFFH NPKPF 50
FMLAK ELYPG HYRPN VTHYF LRLLH
DKELL LRLYT QNIDG LERAS GIPAS 100
KLVEA HGTFV TATCT VCRSS FPGED
IWADV MADRV PRCAV CTGVV KPDIV 150
FFGEQ LPARF LLHMA DFALA DLLLI
LGTSL EVEPF ASLSE AVQKS VPRLL 200
INRDL VGPFV LSPRR KDVVQ LGDVV
HGVER LVDLL GWTQE LLDLM QRERG 250
KLDGQ DR

K: lysine

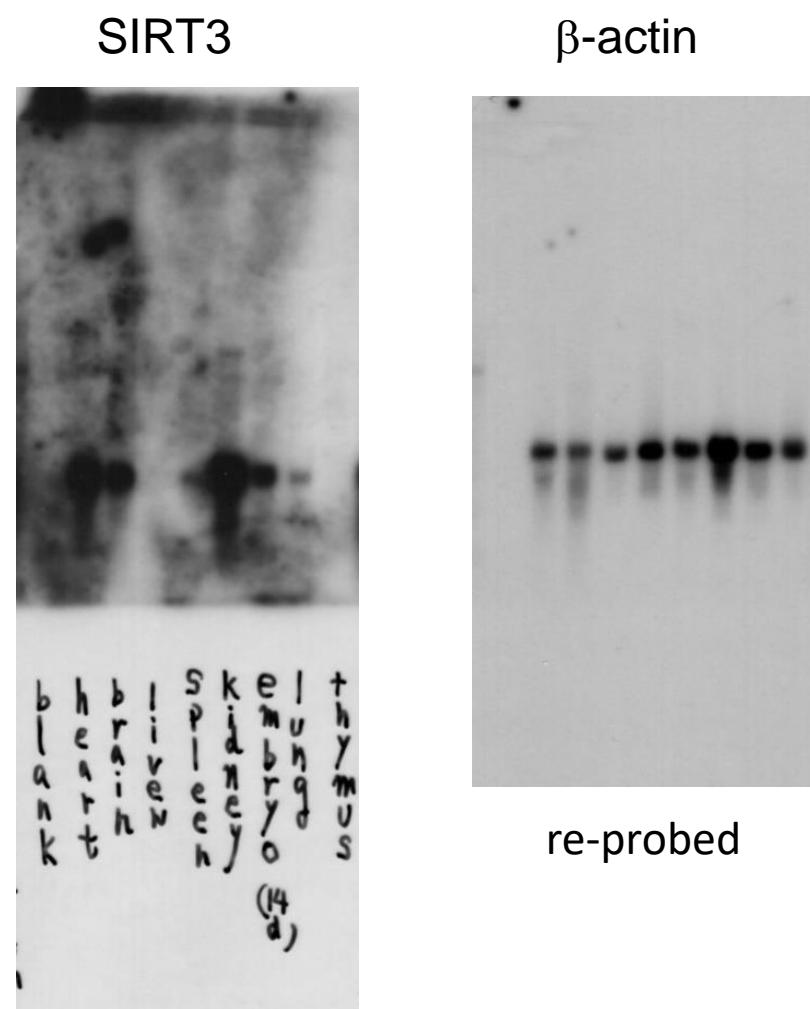
Supplementary Figure 3. Unprocessed Western blots for Figure 1e.



Supplementary Figure 4. An unprocessed Western blot for Figure 1f.



Supplementary Figure 5. Unprocessed Northern blots for Figure 2a.



Supplementary Figure 6. Unprocessed Northern blots for Figures 2b and 2c.

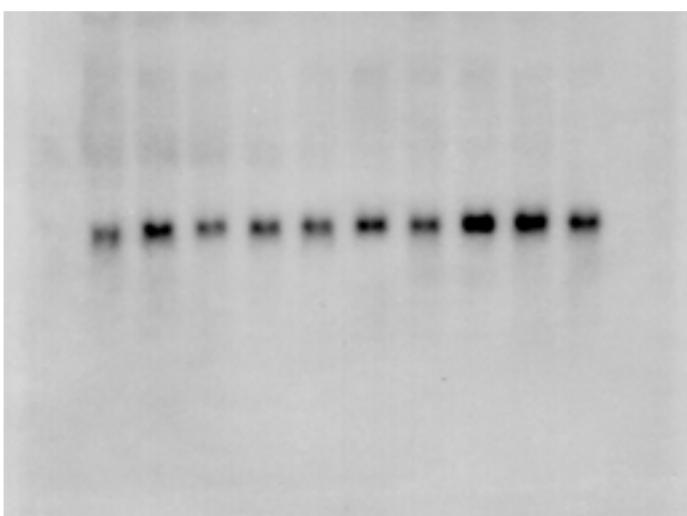


Fig. 2b

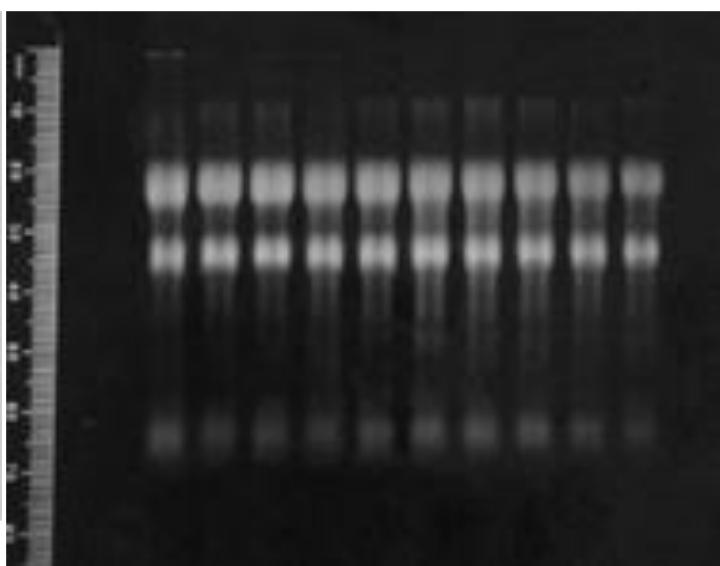
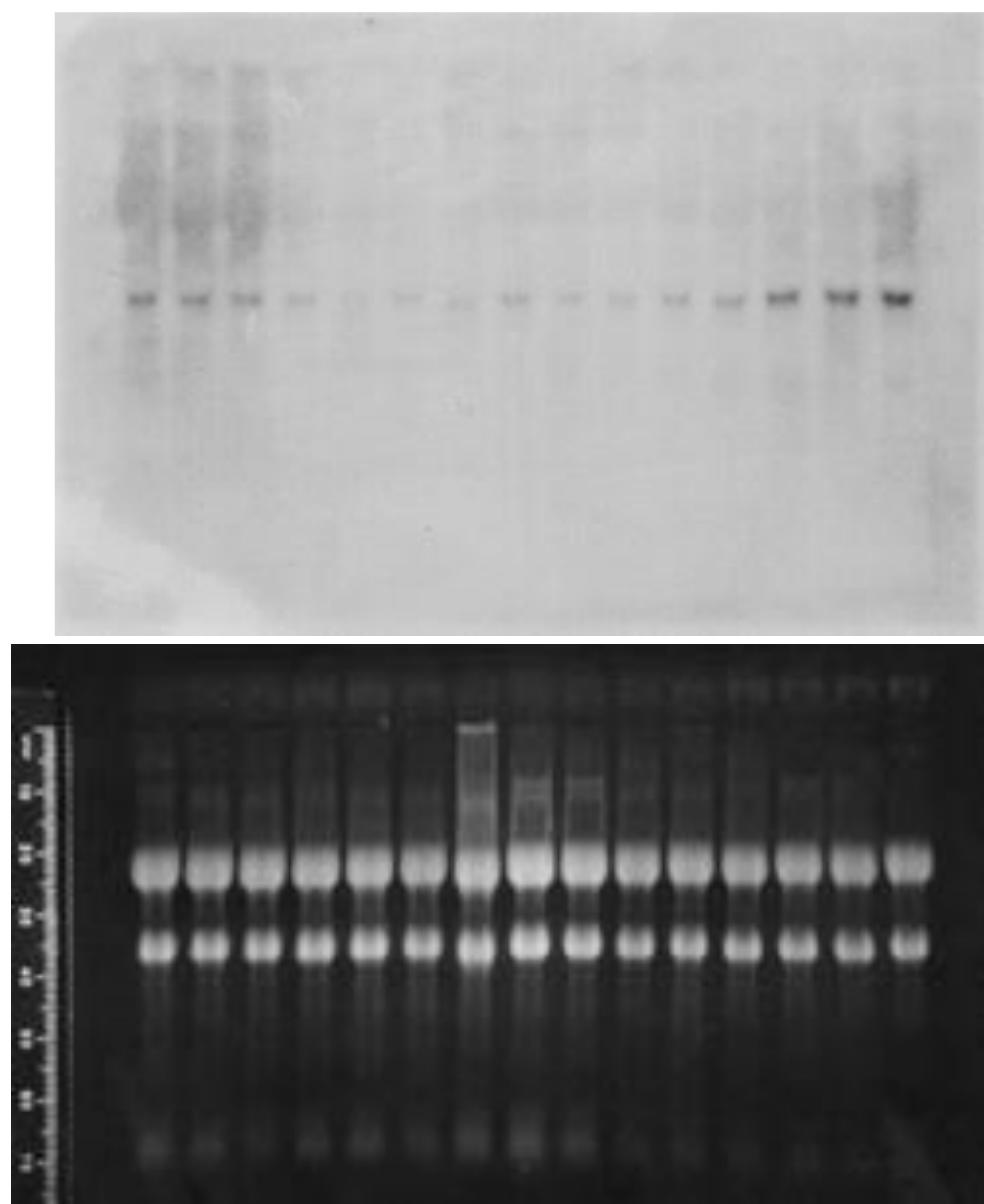
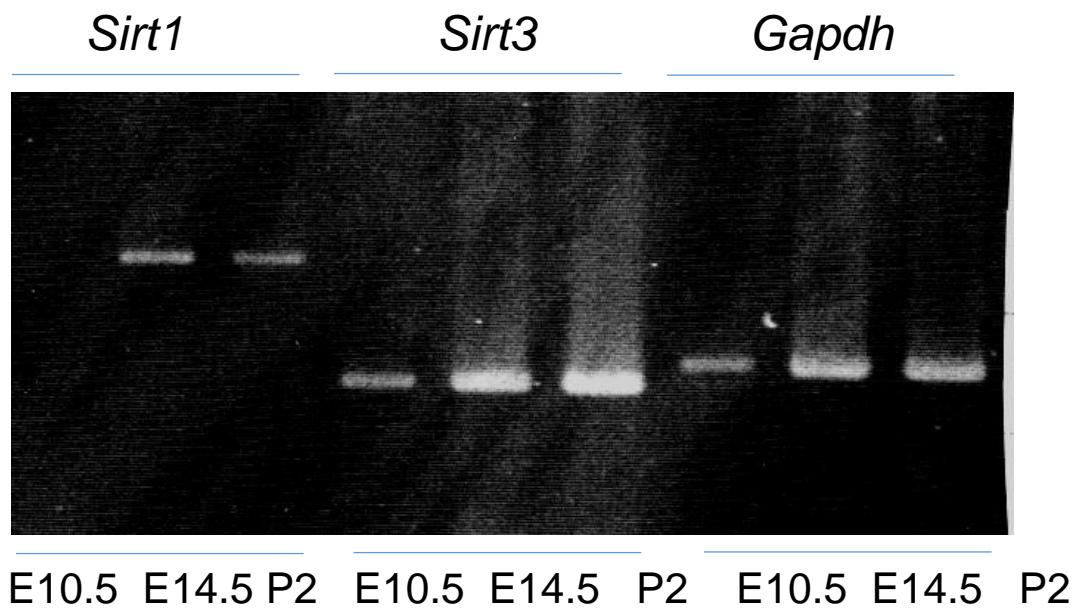


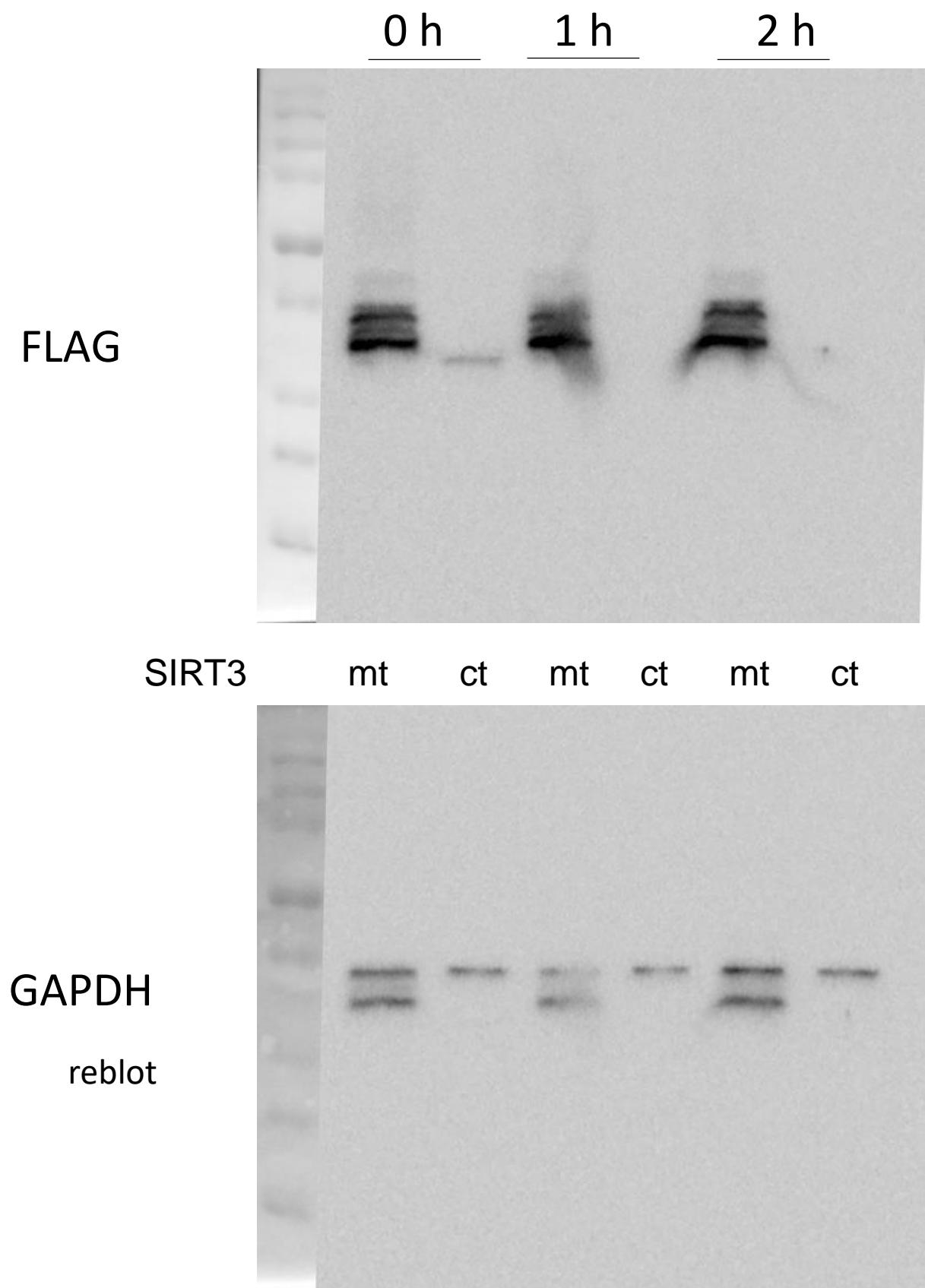
Fig. 2c



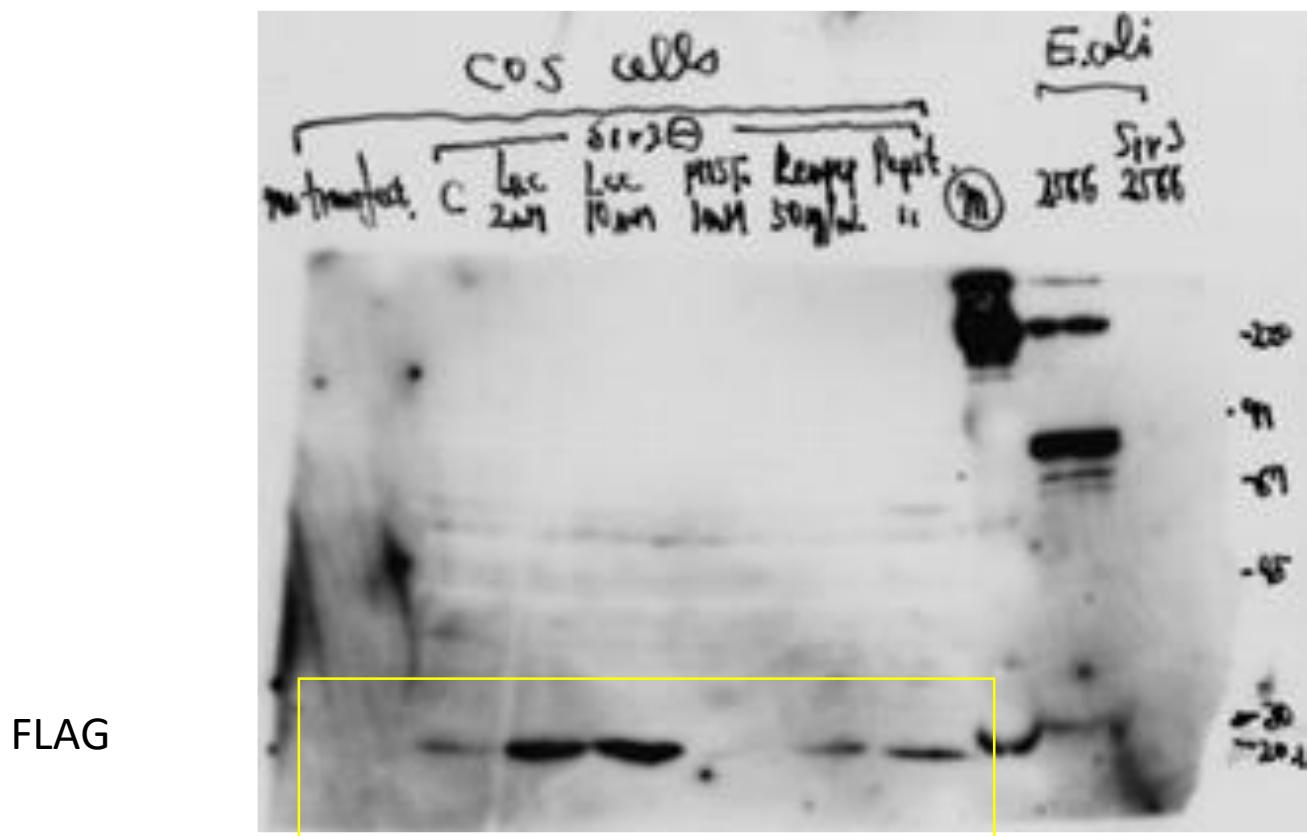
Supplementary Figure 7. Unprocessed PCR gel for Figure 2d.



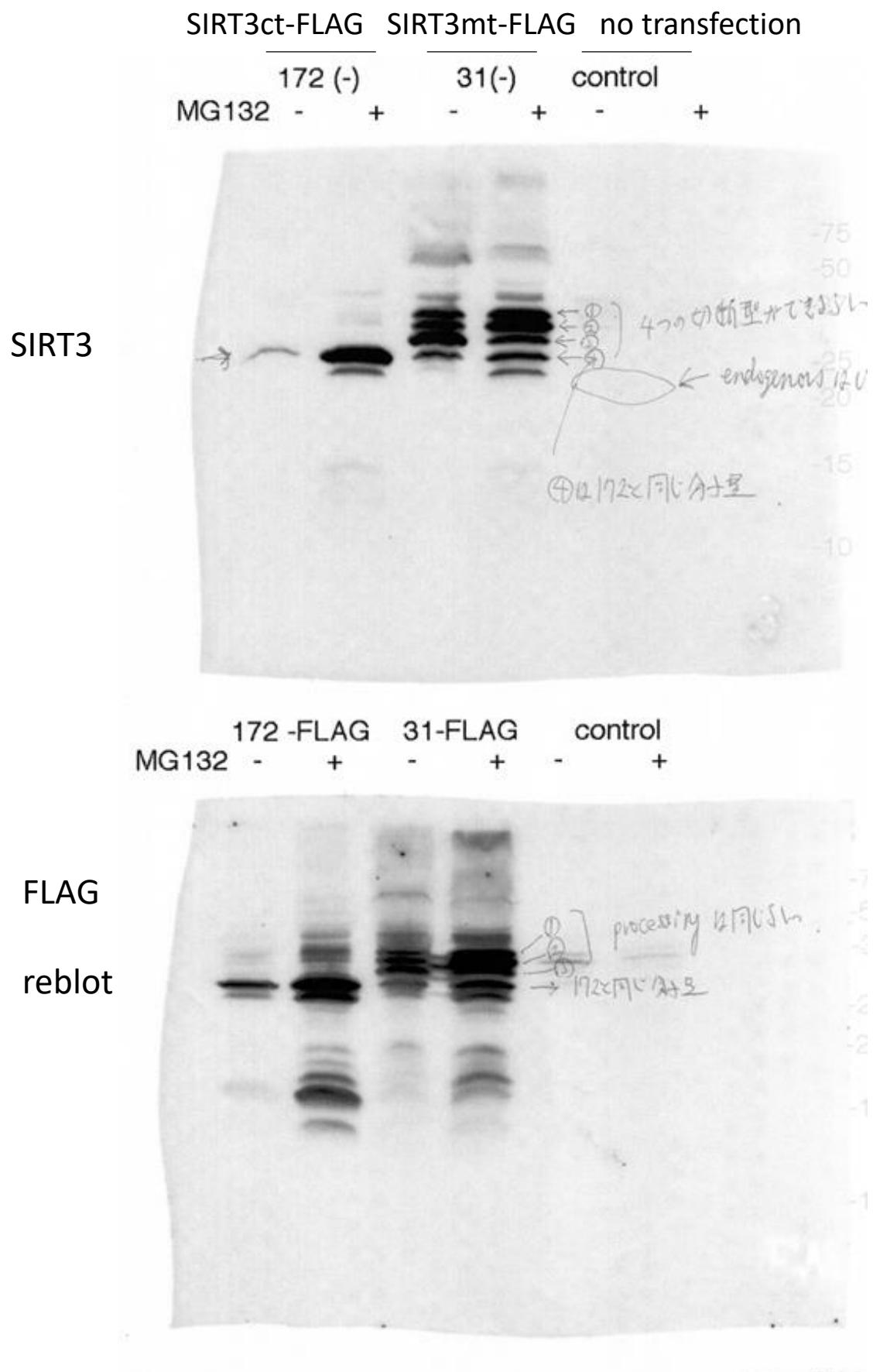
Supplementary Figure 8. Unprocessed Western blots for Figure 4a.



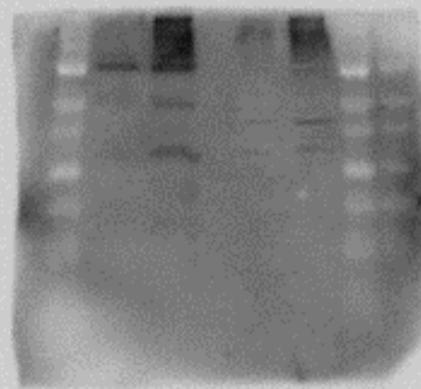
Supplementary Figure 9. Unprocessed Western blots for Figure 4b.



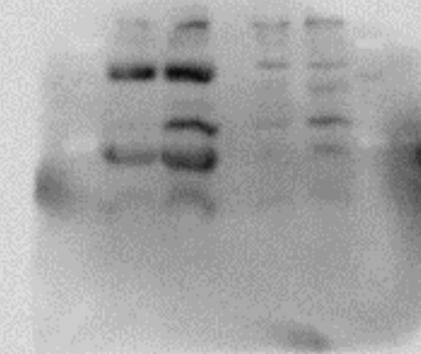
Supplementary Figure 10. Unprocessed Western blots for Figure 4c.



Supplementary Figure 11. Unprocessed Western blots for Figure 4e.

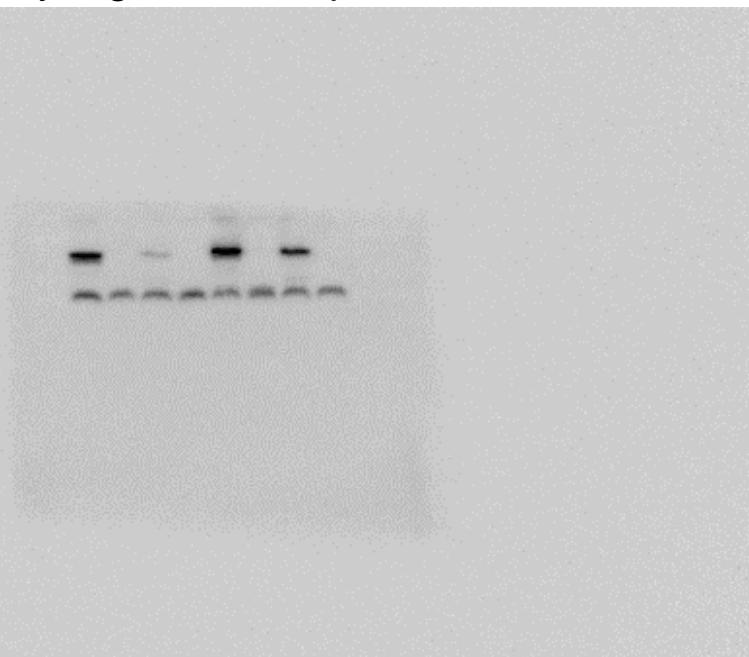


Ub

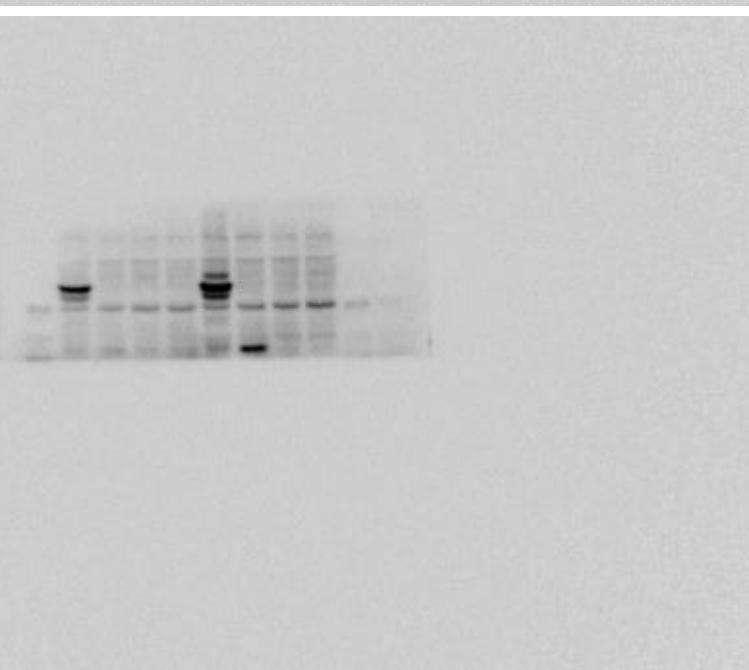


FLAG

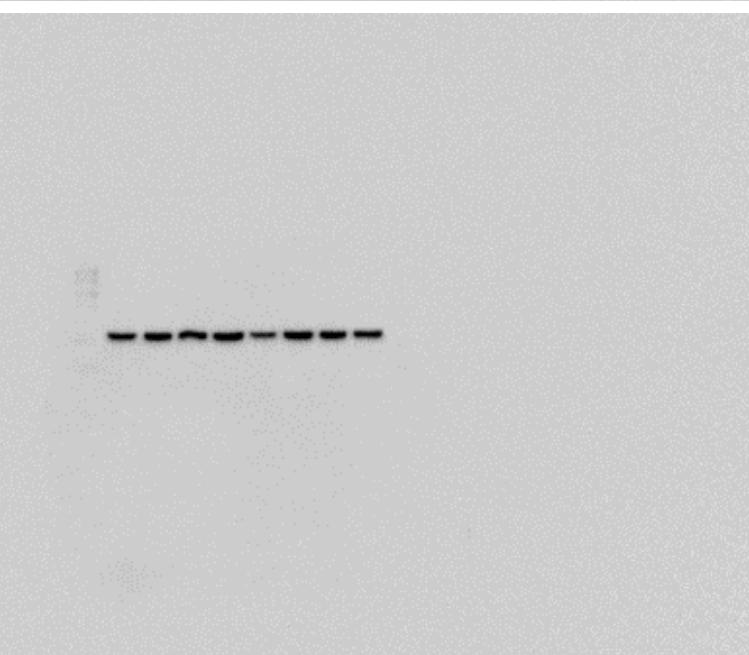
Supplementary Figure 12. Unprocessed Western blots for Figure 4g.



SIRT3-EGFP



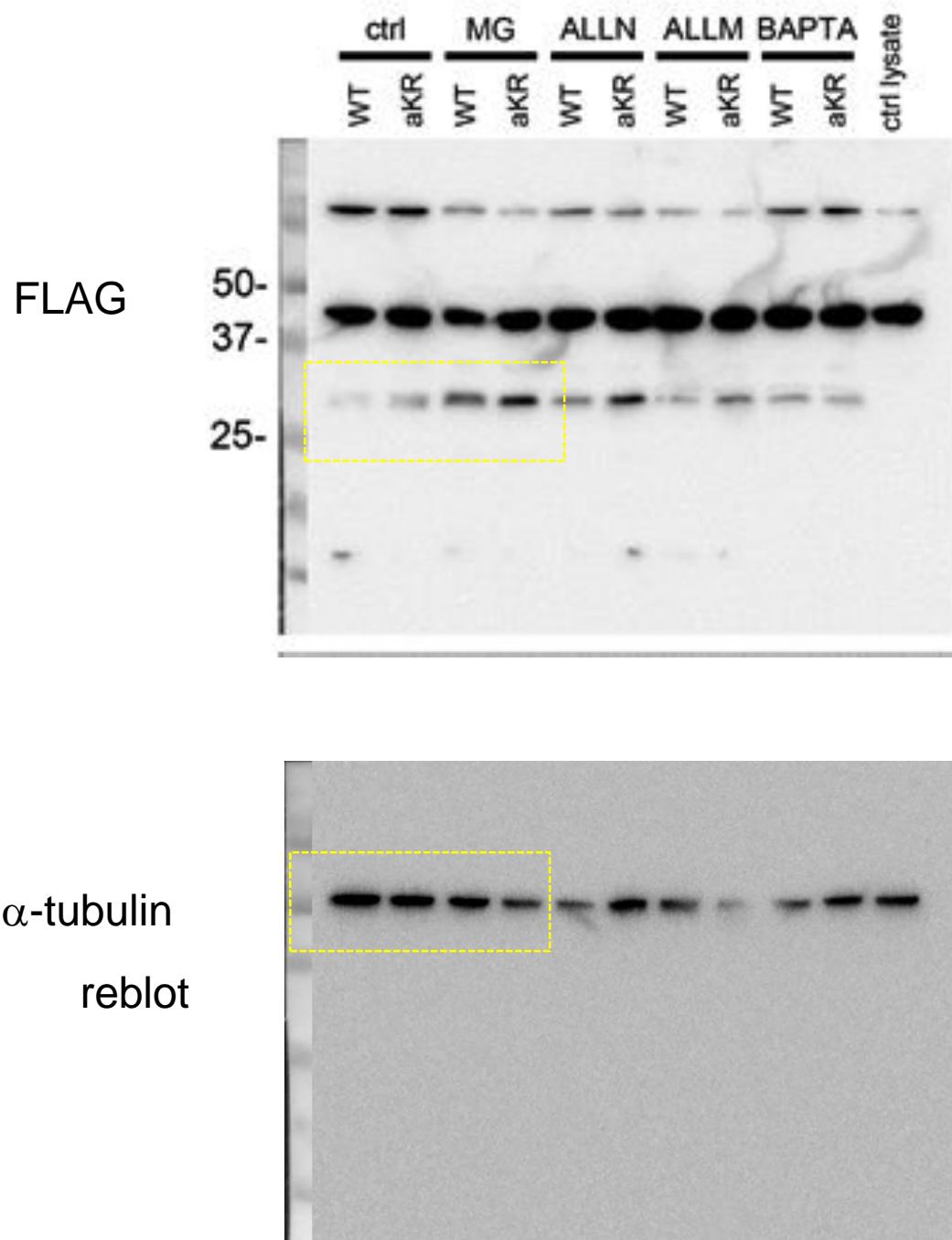
SIRT3-FLAG



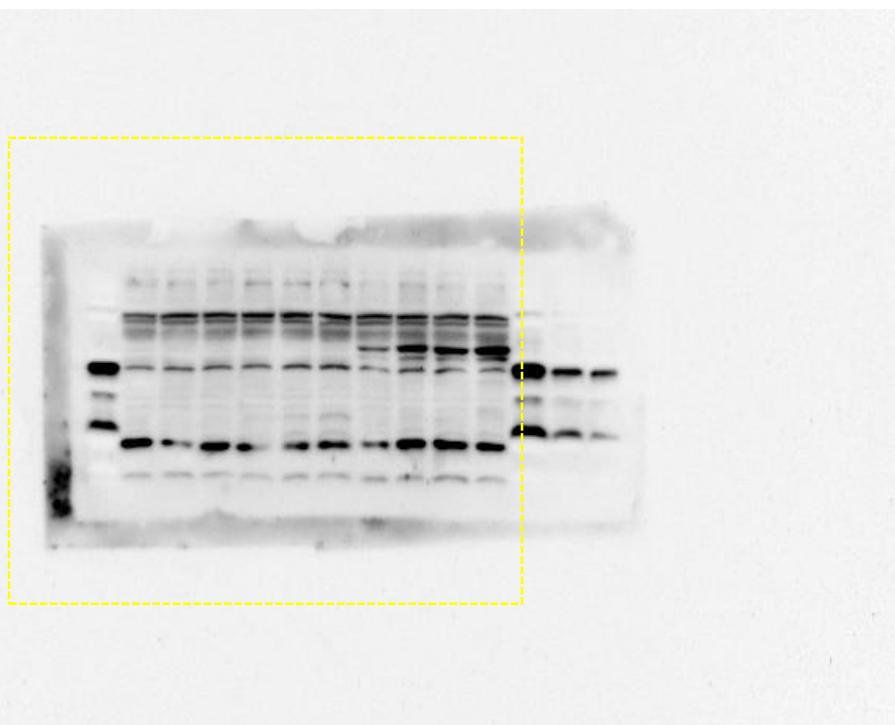
α -tubulin

reblast

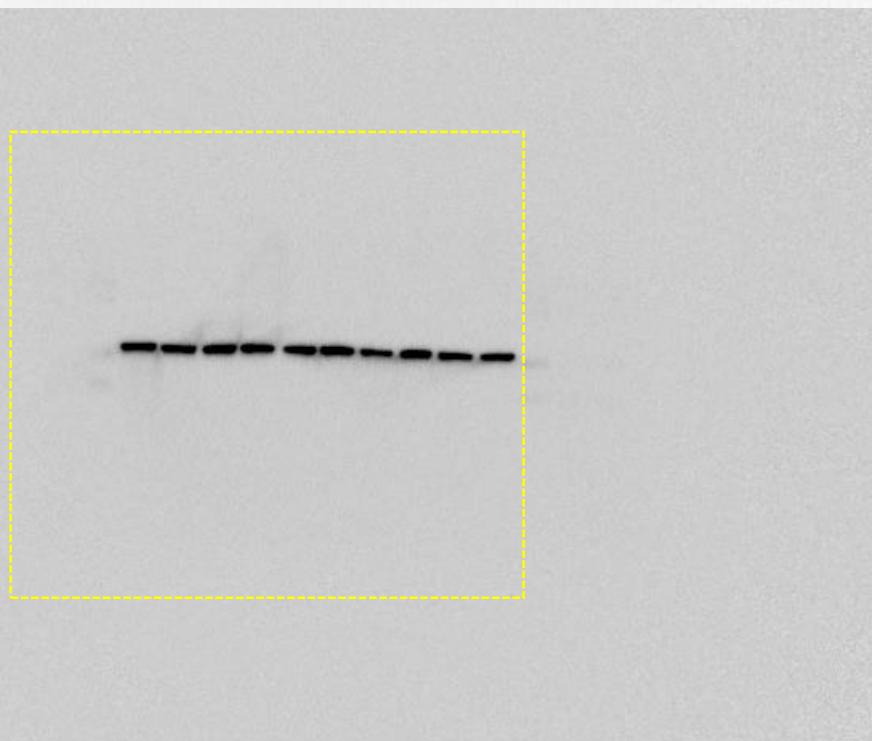
Supplementary Figure 13. Unprocessed Western blots for Figure 4f.



Supplementary Figure 14. Unprocessed Western blots for Figure 4h.



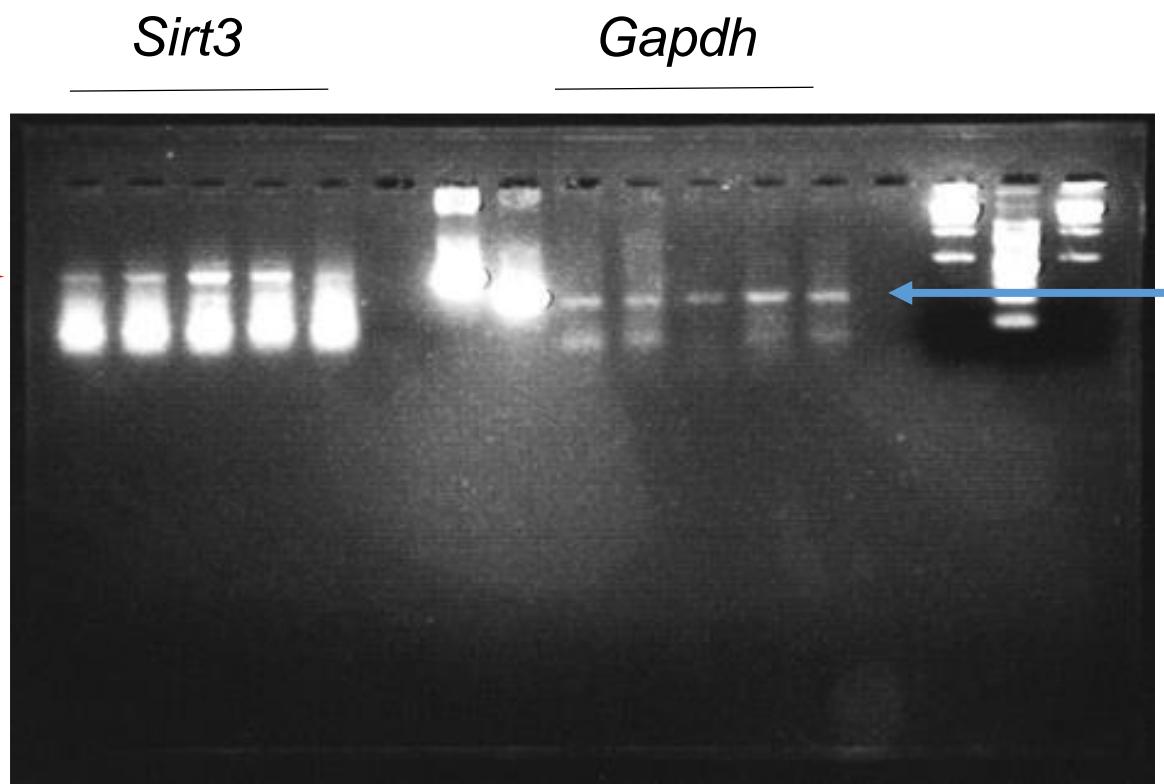
FLAG



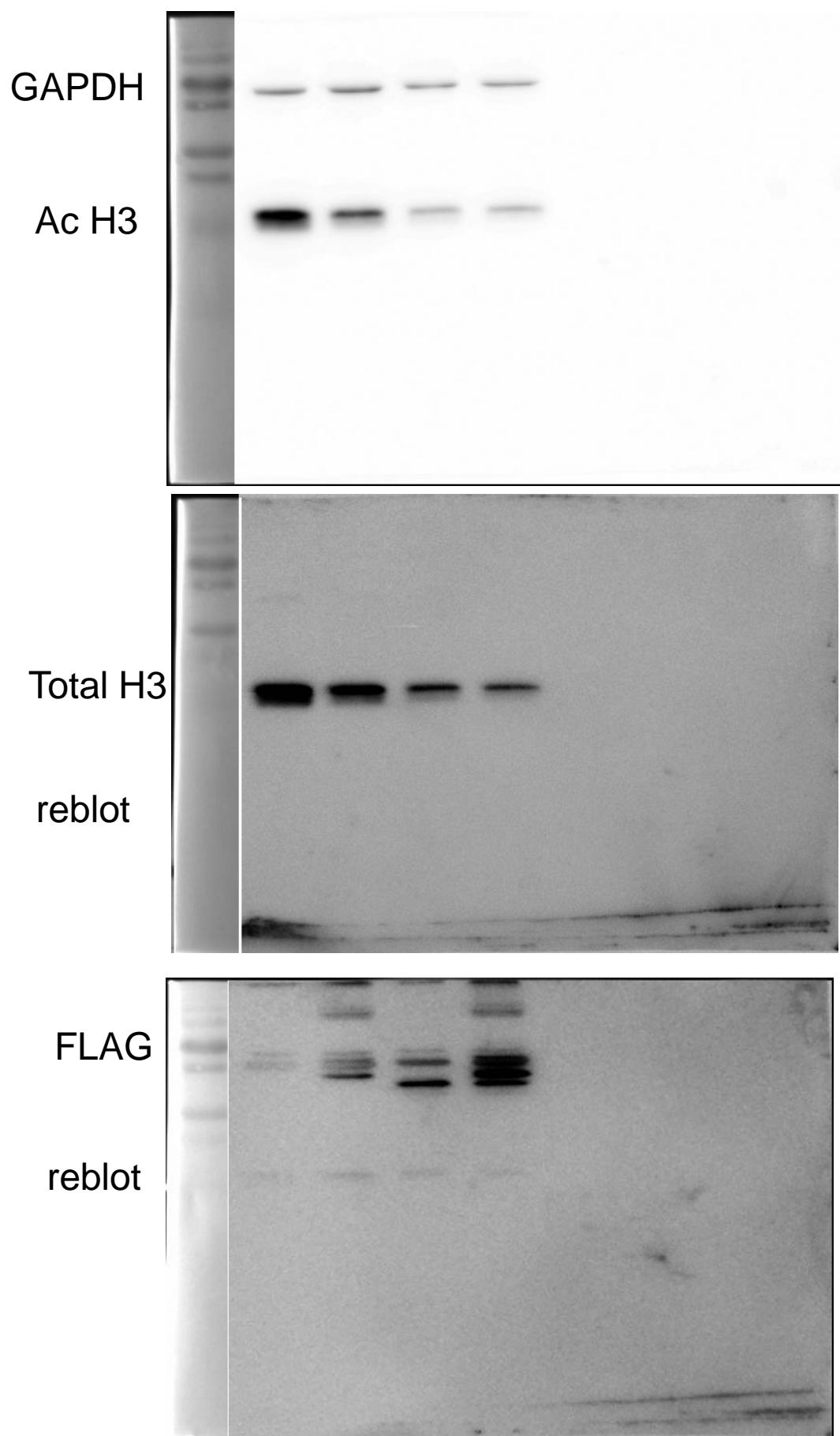
α -tubulin

reblot

Supplementary Figure 15. An unprocessed PCR gel for Figure 5a.



Supplementary Figure 16. Unprocessed Western blots for Figure 5e.



Supplementary Figure 17. Unprocessed Western blots for Figure 6b.

SIRT3

α -tubulin

