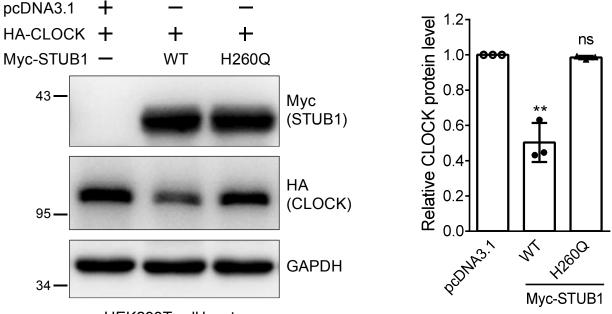
## **Supporting Information For**

The E3 ubiquitin ligase STUB1 attenuates hydrogen peroxide-induced cell senescence through promoting the ubiquitination and degradation of BMAL1

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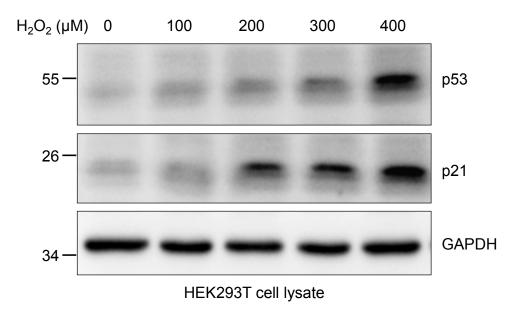
1	MKGKEEKEGG	ARLGAGGGSP	EKSPSAQELK	EQGNRLFVGR	KYPEAAACYG	50
51	RAITR <b>nplva</b>	<b>VYYTNR</b> ALCY	LK <b>mqqheqal</b>	<b>ADCR</b> RALELD	GQSVKAHFFL	100
101	GQCQLEMESY	DEAIANLQRA	YSLAKEQR <b>ln</b>	FGDDIPSALR	IAKKKRWNSI	150
151	EERR <b>ihqese</b>	<b>LHSYLSR</b> LIA	AERERELEEC	QRNHEGDEDD	SHVRAQQACI	200
201	EAKHDK <b>YMAD</b>	MDELFSQVDE	<b>K</b> RKKRDIPDY	LCGKISFELM	REPCITPSGI	250
251	TYDRK <b>dieeh</b>	LQRVGHFDPV	TRSPLTQEQL	<b>ipnlamk</b> evi	DAFISENGWV	300
301	EDY					

**Supplementary Figure S1.** Position of MS identified tryptic peptides in the amino acid sequence of STUB1. The identified peptides were underlined in the boldface.



HEK293T cell lysate

**Supplementary Figure S2.** STUB1-mediated downregulation of CLOCK requires its E3 ligase activity. HEK293T cells were transfected with HA-CLOCK plasmid and then split into three plates. The control, wild-type (WT) STUB1, or inactive H260Q STUB1 mutant plasmid was further transfected to the above cells. Cell lysates were obtained 48 h after the second transfection and immunoblotted. Student's *t*-test was used to calculate the *P*-value for the data (means±SDs) from three biological replicates. \*\*: P < 0.01; ns: not significant.



**Supplementary Figure S3.**  $H_2O_2$  induces senescence in HEK293T cells. HEK293T cells were treated with different concentrations of  $H_2O_2$  for 24 h and the resulting cell lysates were immunoblotted with the indicated antibodies.