Online Supplement

OGG-1 regulates inflammatory responses to hyperoxia in the lung by interacting with Atg 7

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Supplementary Figures and legends

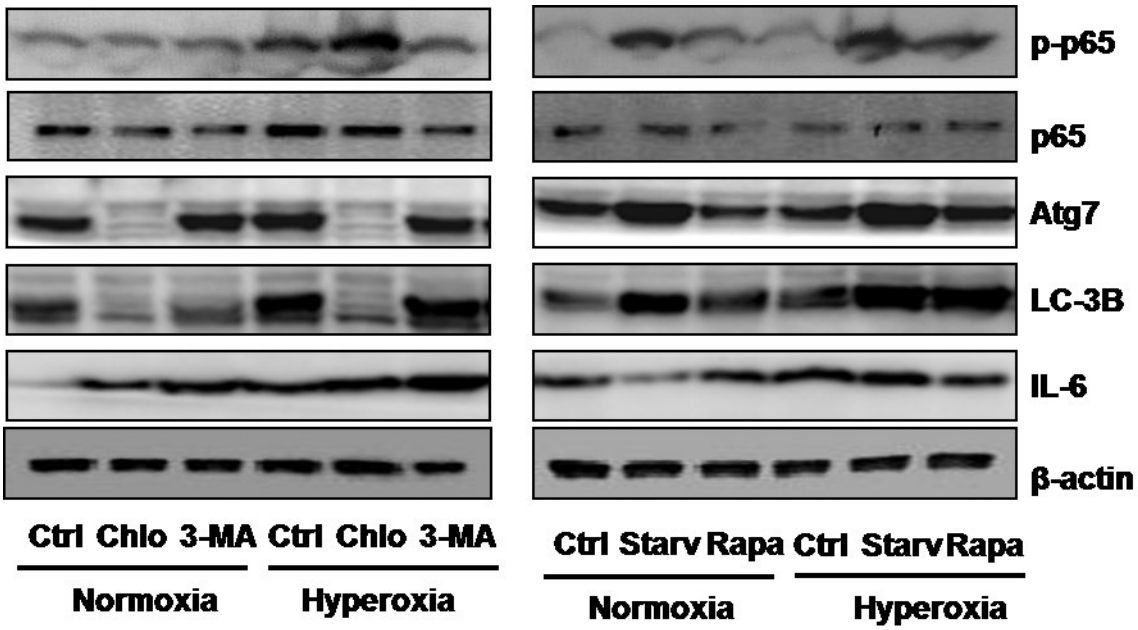

Figure S1. Autophagy is involved inflammatory responses under hyperoxia. Cells were starved for 4 h or pre-treated with rapamycin (10 nM) for 12 h, 3-methyladenine (3-MA) (5 mM) for 3 h and chloroquine (20 μM) for 6 h before hyperoxia exposure. After 6 h hyperoxia exposure, cells were collected to detect the expressions of cytokines, NF-κB as well as autophagy markers.

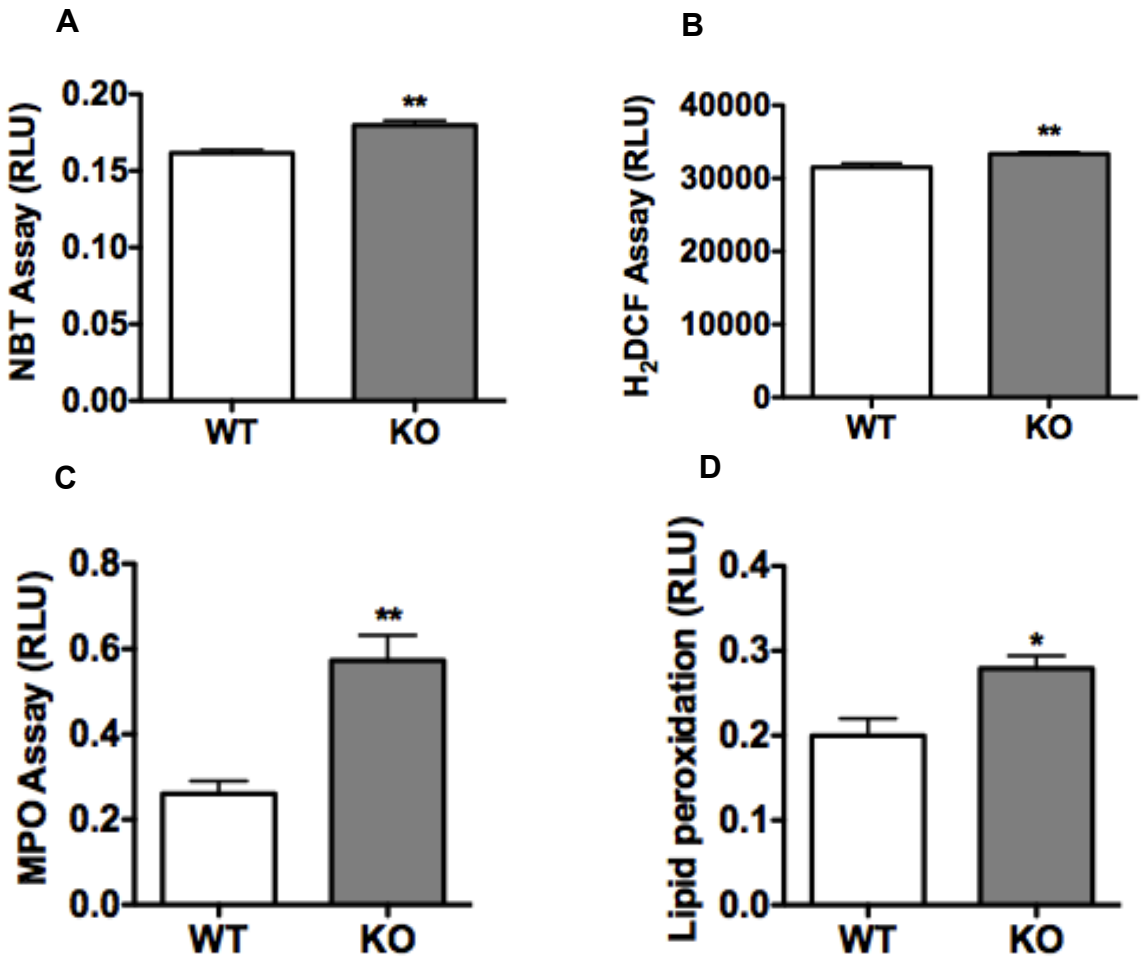

Figure S2. Increased oxidative stress in the lungs of *ogg1* KO mice. (**A**) Superoxide production of AM cells was significantly increased in *ogg1* KO mice compared to that of WT mice using NBT assay (1 μg/ml) at 560 nm. (**B**) Oxidative stress was increased in *ogg1* KO mice as determined by an H_2DCF assay (5 μM) at 485 nm. Increased MPO activity (**C**) and lipid peroxidation (**D**) were observed in *ogg1* KO mice. *ogg1* KO mice and WT mice were exposed to hyperoxia for 48 h. Data were representative of three experiments (student t-test, *$p< 0.05$, **$p< 0.01$).

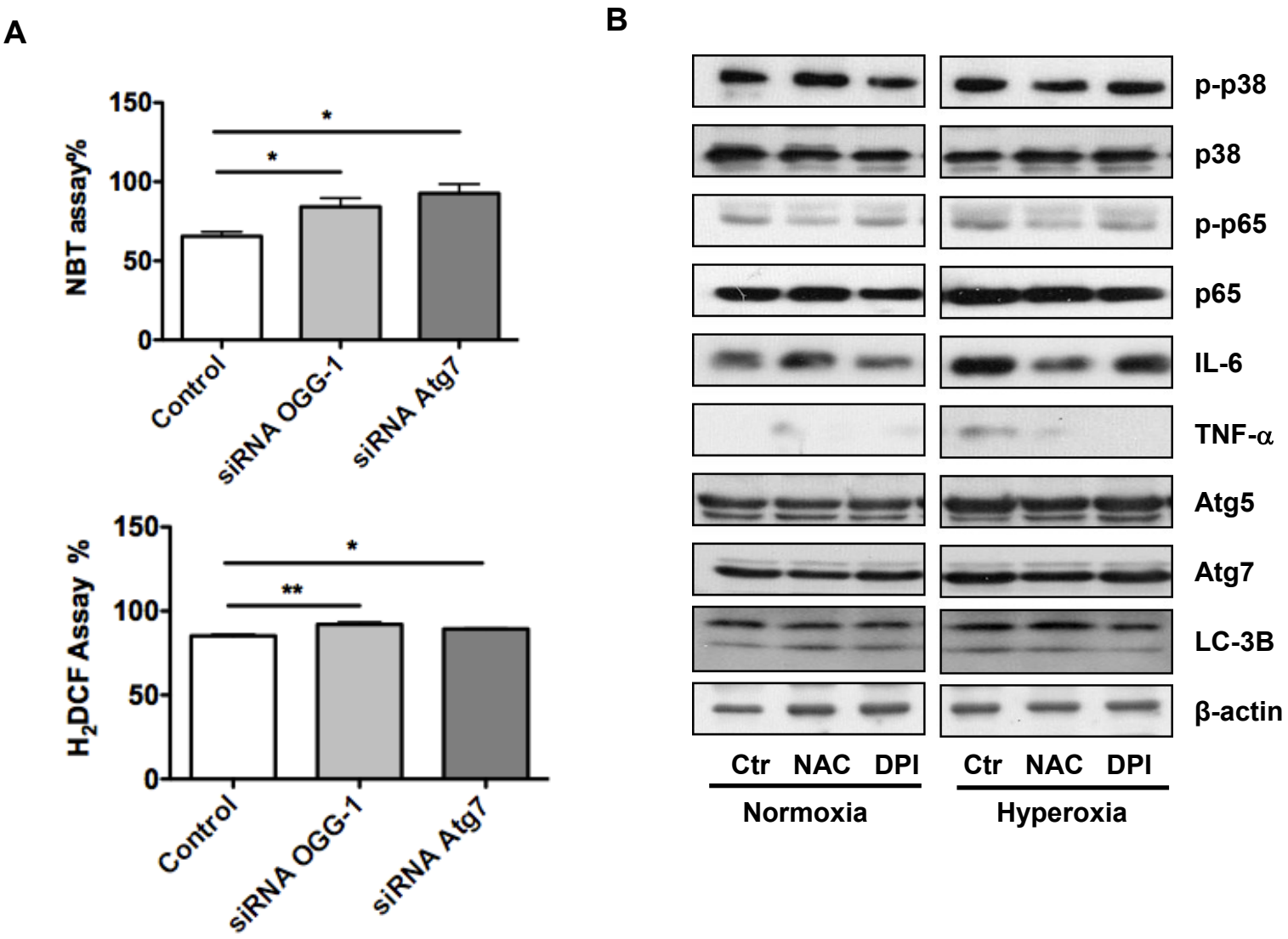

Figure S3. ROS plays a role in regulating inflammatory responses. (**A**) Increased ROS production in Atg7 or OGG1 silencing cells determined by NBT and H_2DCF assay. (**B**) Increased expression of cytokines and NF-κB was significantly blocked by ROS inhibitors by immunoblotting analysis. Cells were pretreated with diphenylene iodonium (DPI) (10 μM) and N-aceltylcysteine (NAC) (5 μM) for 16 h, respectively, followed by 6 h hyperoxia exposure. Data were representative of three experiments (student t-test, * $p < 0.05$; **$p < 0.01$).

Supplementary Table 1. Primers of Atg7 gene.

ID	Primer Sequences (5'-3')
Atg7_CpG_ChIP_F	AAGTTGAGCGGCGGTAAGTAA
Atg7_CpG_ChIP_R	AGGCAGCACTTCACAGAATGA
Atg7_upstream_ChIP_F	GAT GCG GTA TCA GGA TGC TT
Atg7_upstream_ChIP_R	GTG GAT CTG TGA GTA GTG AGT
Atg7_downstream_ChIP_F	ACA CAT AGC CGG GCA CAG
Atg7_downstream_ChIP_R	AGTTGGCCTCACCACTGTG
Atg7 luci-reporter F	CGGGGTACCCCG GCTTACAGGTTAGCCTTAGTT
Atg7 luci-reporter R	TCCCCCGGGGGA AGGCAGCACTTCACAGAATGA