

# **Omega-3 Fatty Acids Upregulate SIRT1/3, Activate PGC-1 $\alpha$ via Deacetylation, and Induce Nrf1 Production in 5/6 Nephrectomy Rat Model**

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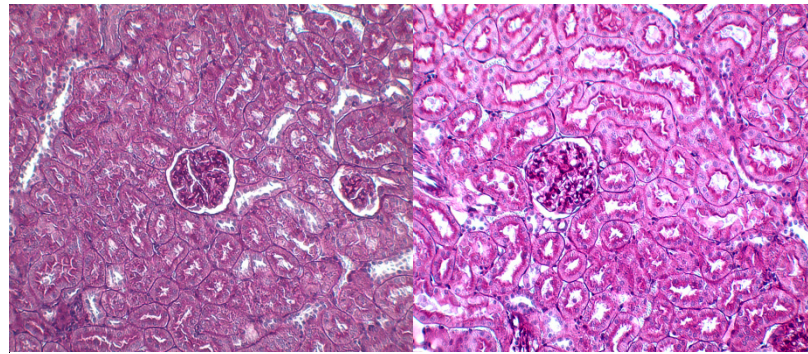
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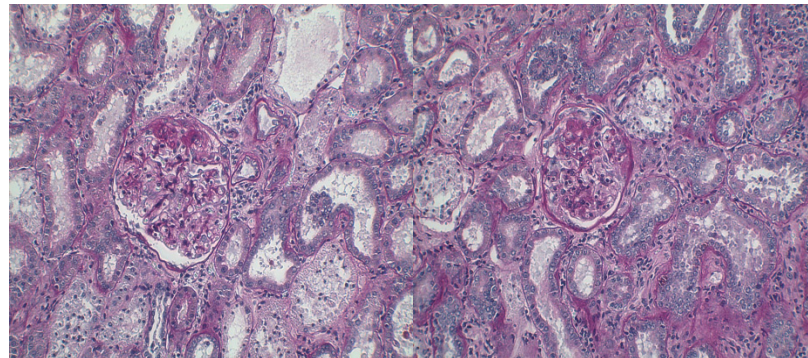
† These authors contributed equally to this work

## **Supplementary Information**

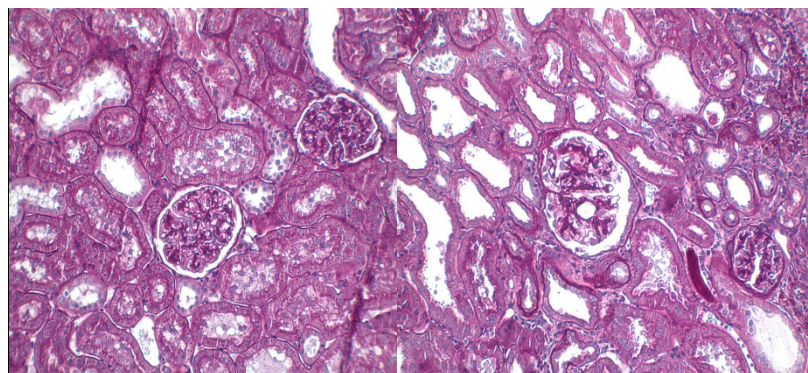
A. Sham control group (serum creatinine  $0.4 \pm 0.0$  mg/dL)



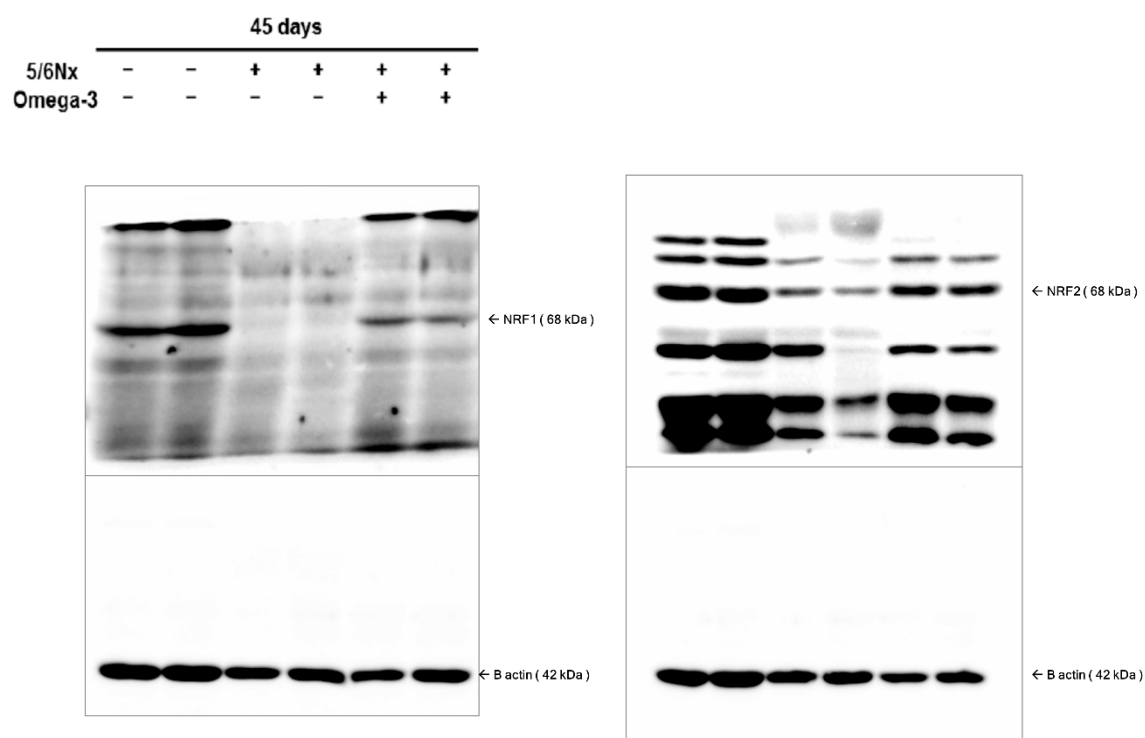
B. 5/6 Nephrectomy group (serum creatinine  $1.3 \pm 0.6$  mg/dL)



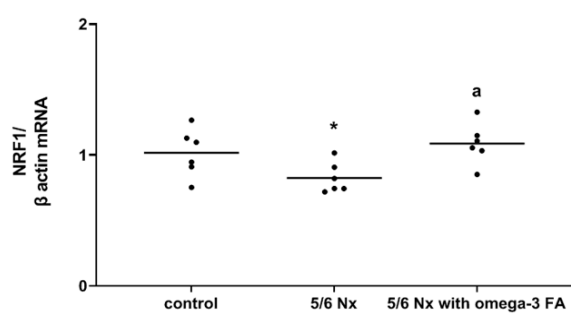
C. 5/6 nephrectomy treated with omega-3 fatty acid (serum creatinine  $1.0 \pm 0.3$  mg/dL)



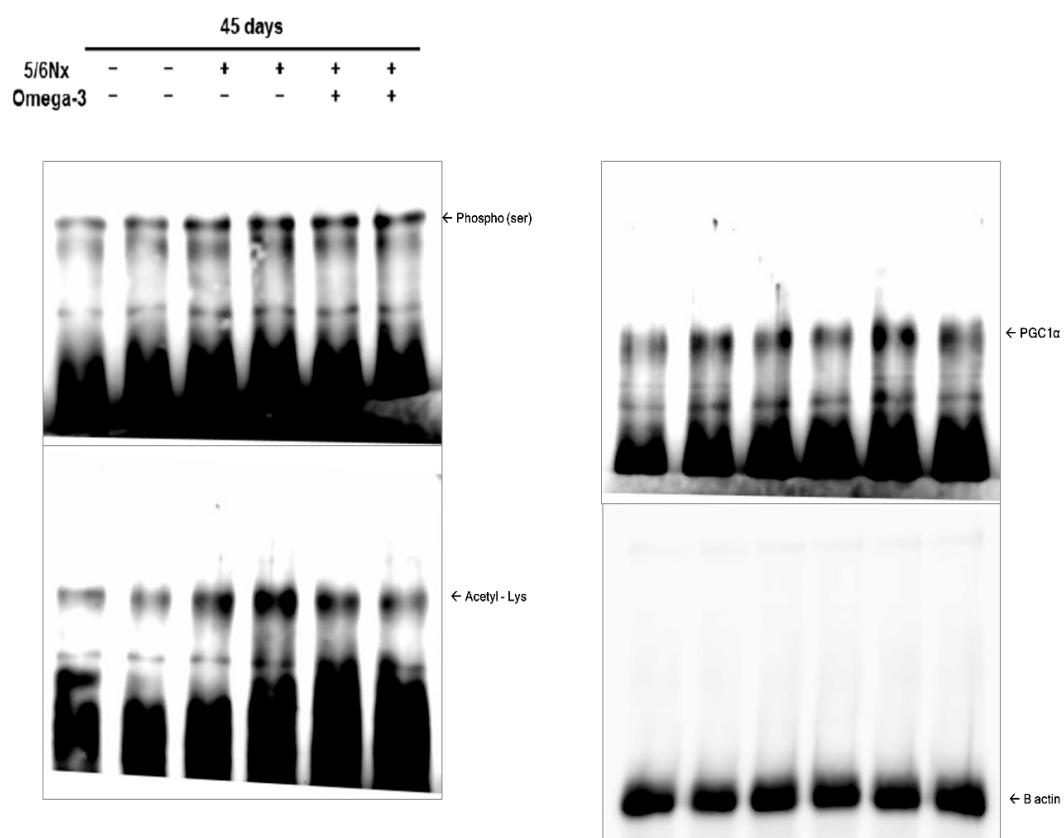
**Figure S1** Morphological changes in the kidney among three groups representing renal function.



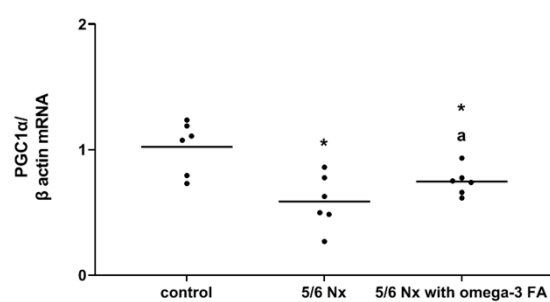
**Figure S2.** Expression of Nrf1 and Nrf2 on full length gels.



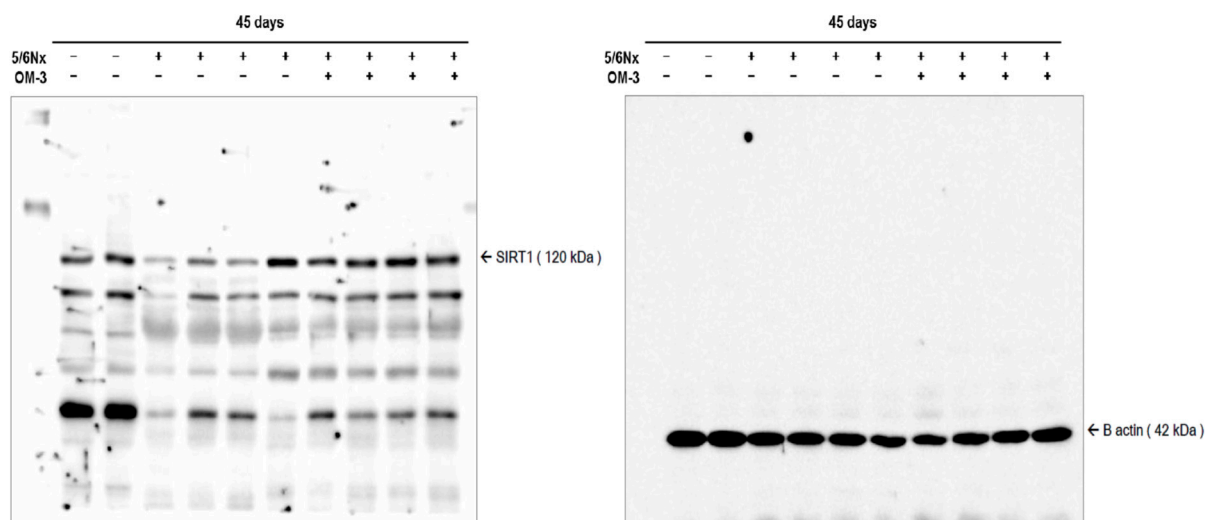
**Figure S3** Expressions of Nrf1 by real time PCR among three groups. Decreased Nrf 1 mRNA of 5/6 nephrectomy group was improved by omega-3 FA supplementation. \**p* value < 0.05 (mean values are significantly different from control). <sup>a</sup>*p* value < 0.05 (mean values are significantly different from the Nx group).



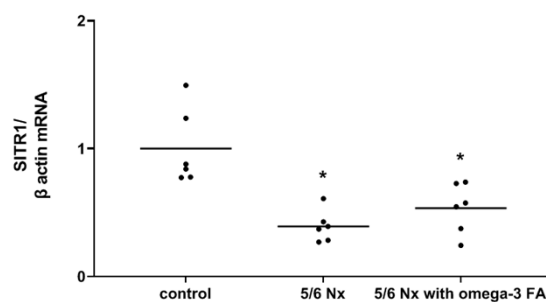
**Figure S4** Expressions of phosphorylated PGC-1 $\alpha$ , acetylated PGC-1 $\alpha$ , and PGC-1 $\alpha$  on full length gels.



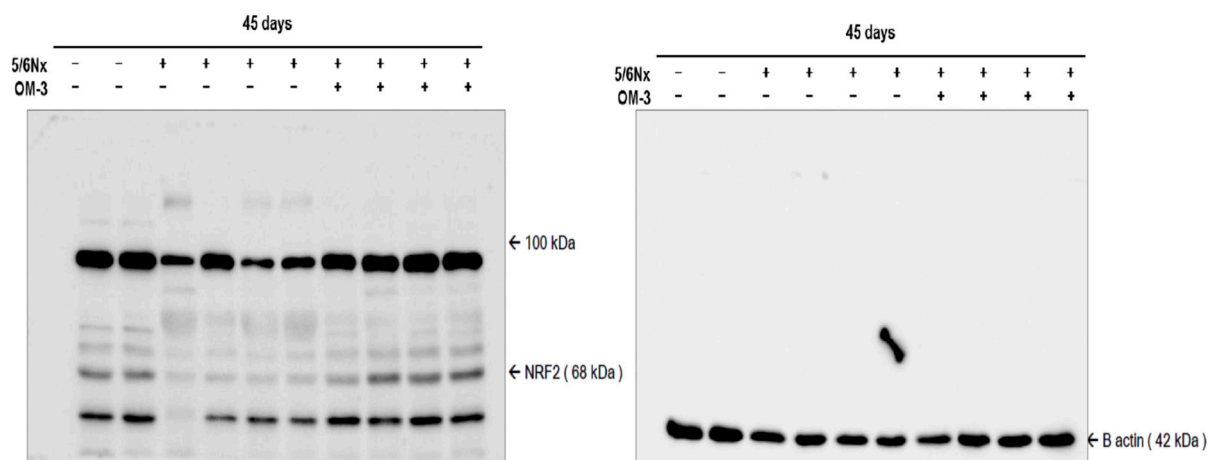
**Figure S5** Expressions of PGC-1 $\alpha$  by real time PCR among three groups. Decreased PGC-1 $\alpha$  mRNA of 5/6 nephrectomy group was improved by omega-3 FA supplementation. \* $p$  value < 0.05 (mean values are significantly different from control). ^ $p$  value < 0.05 (mean values are significantly different from the Nx group).



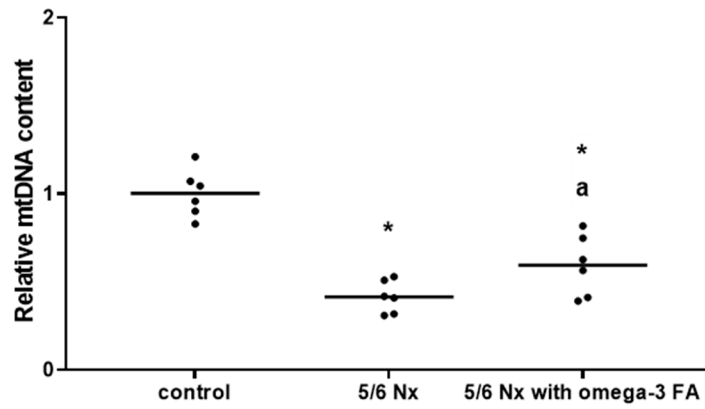
**Figure S6** Expressions of SIRT1 on full length gels



**Figure S7** Expressions of SIRT1 by real time PCR among three groups. SIRT1 mRNA expression was similar with SIRT1 protein expression. \* $p$  value  $< 0.05$  (mean values are significantly different from control).



**Figure S8** Expressions suspected as biologically relevant Nrf2 (96 kDa) on full length gels



**Figure S9** Relative content of mtDNA. \**p* value < 0.05 (mean values are significantly different from control). <sup>a</sup>*P* value < 0.05 (mean values are significantly different from the Nx group).