

## Supplementary Information

# Mechanistic Investigation of WWOX Function in NF- $\kappa$ B-induced Skin Inflammation in Psoriasis

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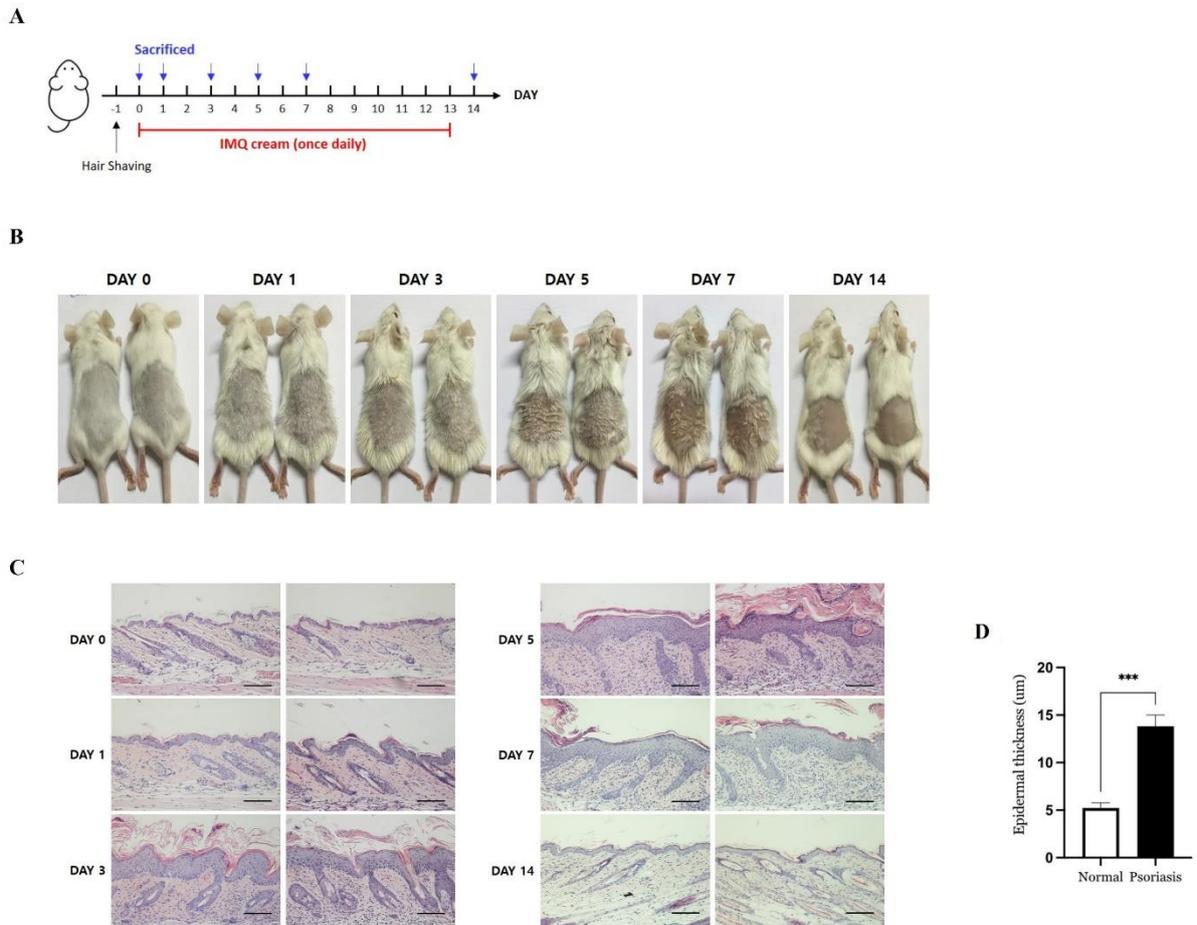
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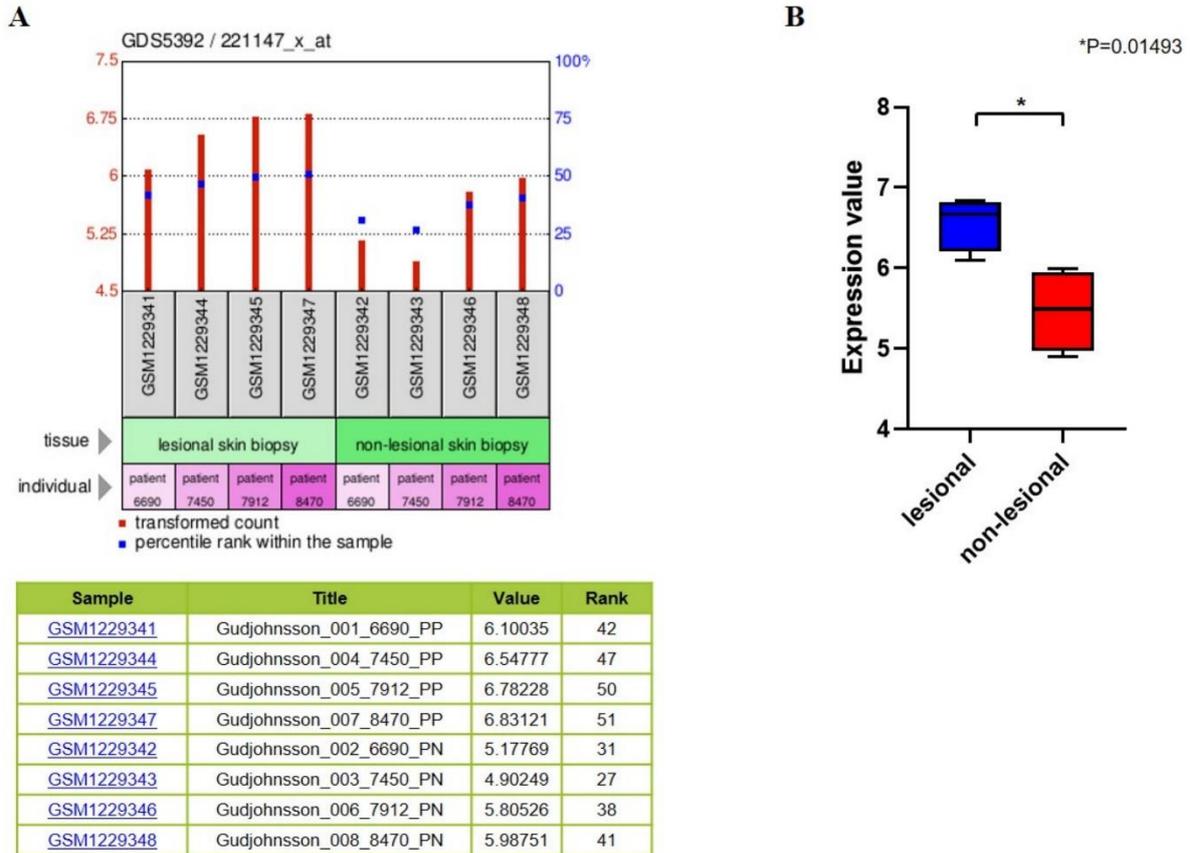
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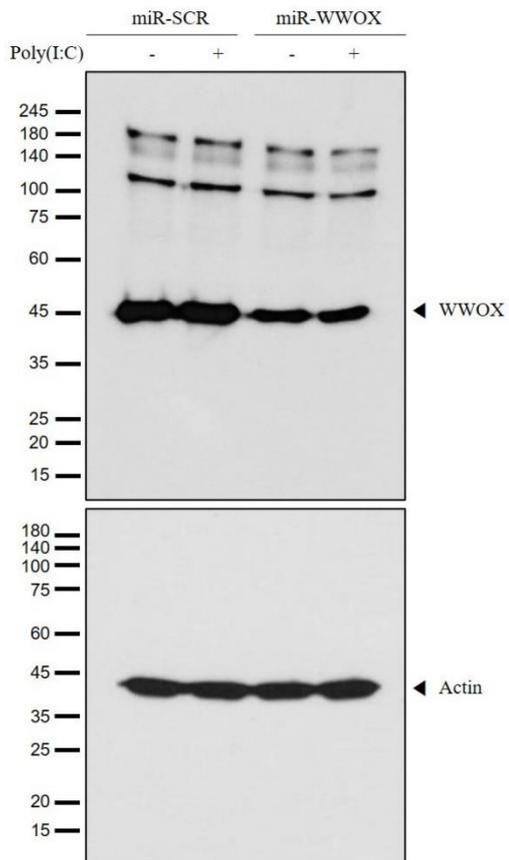
**Figure S1.** (A) Timeline of the imiquimod-induced psoriasis mouse model. (B) Representative images of the back skin from the IMQ-induced mice model at different time points. (C) Representative Hematoxylin and Eosin staining findings of the back skin from the IMQ-induced mice model at different time points. (n = 2, Magnification: 200X, Scale bar = 100µm) (D) Histogram of Epidermal thickness of day 5. Data are presented as mean  $\pm$  SEM (n = 5). Student's t-test was performed for statistical analysis. \*  $P < 0.05$ .

[WVVOX - Chronic plaque psoriasis: lesional and non-lesional skin punch biopsies](#)  
 Annotation: [WVVOX](#), WW domain-containing oxidoreductase  
 Organism: Homo sapiens  
 Reporter: [GPL570](#), 221147\_x\_at (ID\_REF), [GDS5392](#), [51741](#) (Gene ID)  
 DataSet type: Expression profiling by array, transformed count, 8 samples  
 ID: 124567731

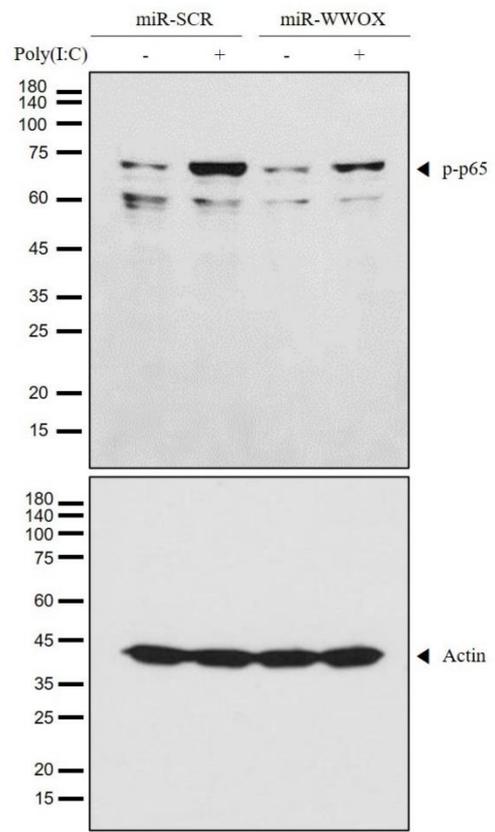


**Figure S2.** (A) Processed microarray data were obtained from Gene Expression Omnibus. (B) Transcript levels in lesional area were compared to levels in non-lesional area.

**A.**

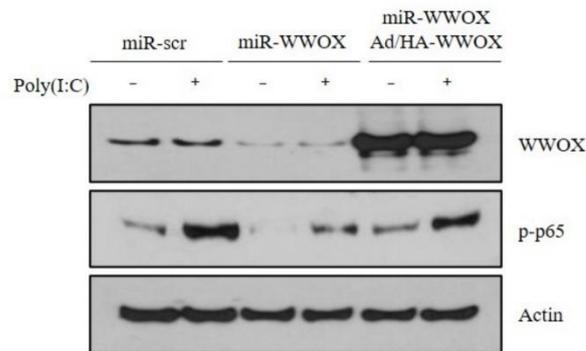


**B.**

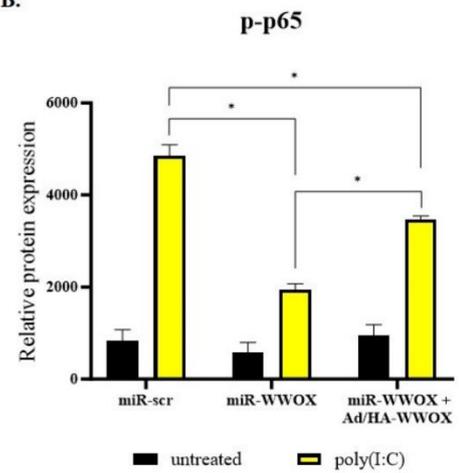


**Figure S3.** Uncropped data for Figure 2.

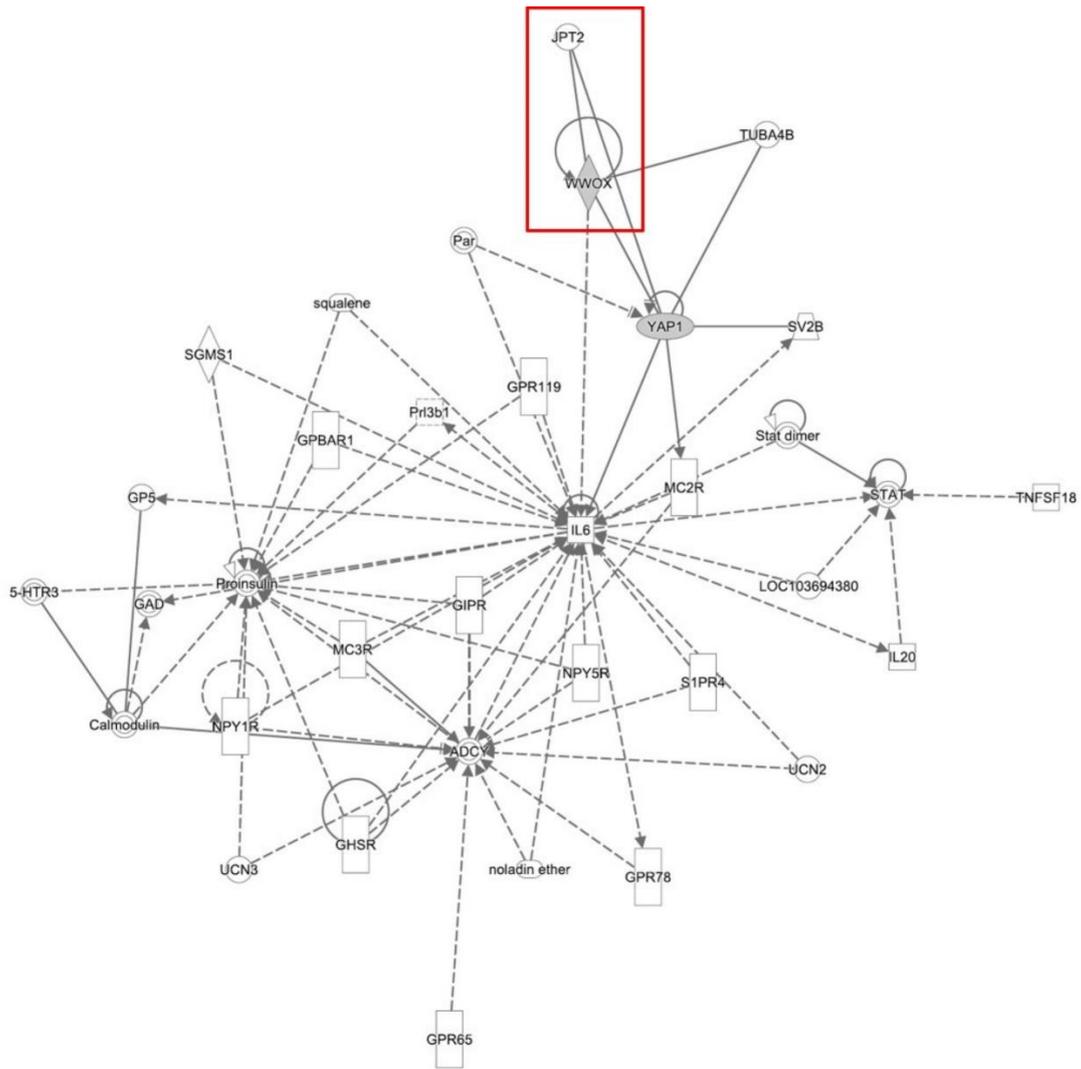
A.



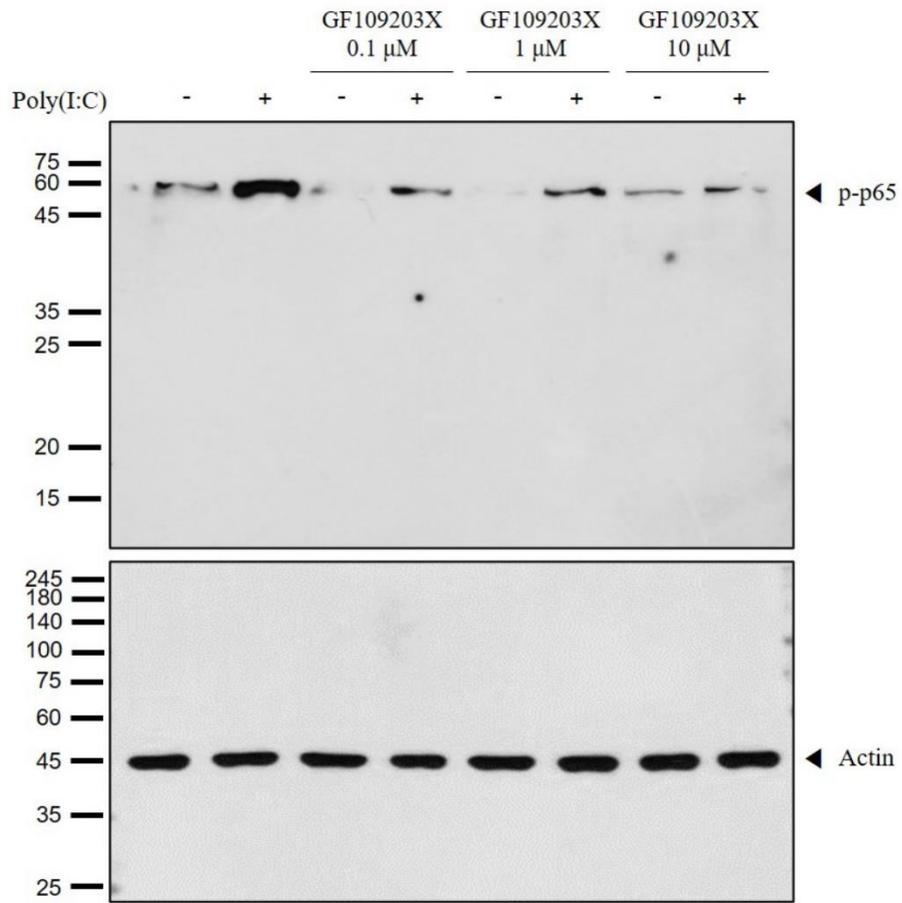
B.



**Figure S4.** Rescue Experiment by overexpression of WWOX in SV-keratinocyte. (A) The rescue experiment of Western blot showed that overexpression of WWOX increased p-p65 (NF- $\kappa$ B marker), which was decreased by WWOX knockdown. (B) Histogram of relative protein expression. Data are presented as mean  $\pm$  SEM (n = 3). Student's t-test was performed for statistical analysis. \*  $P < 0.05$ .



**Figure S5.** Ingenuity Pathway Analysis (IPA) was performed to find WWOX-interacting proteins. It is predicted that WWOX could interact with JPT2 (red box).



**Figure S6.** Uncropped data for Figure 5E.