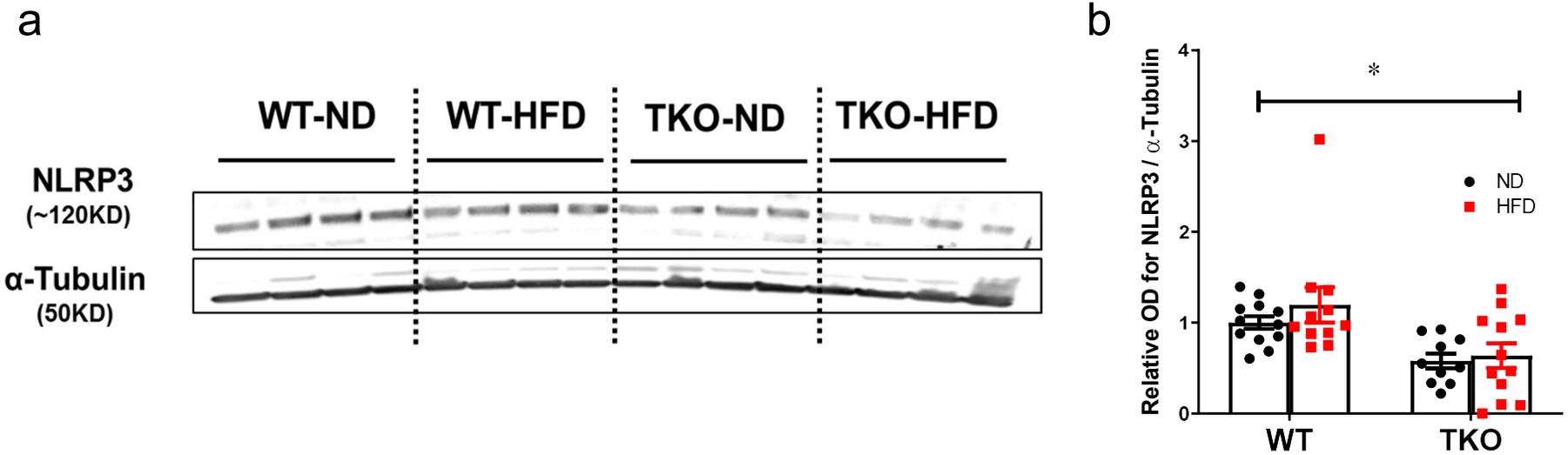
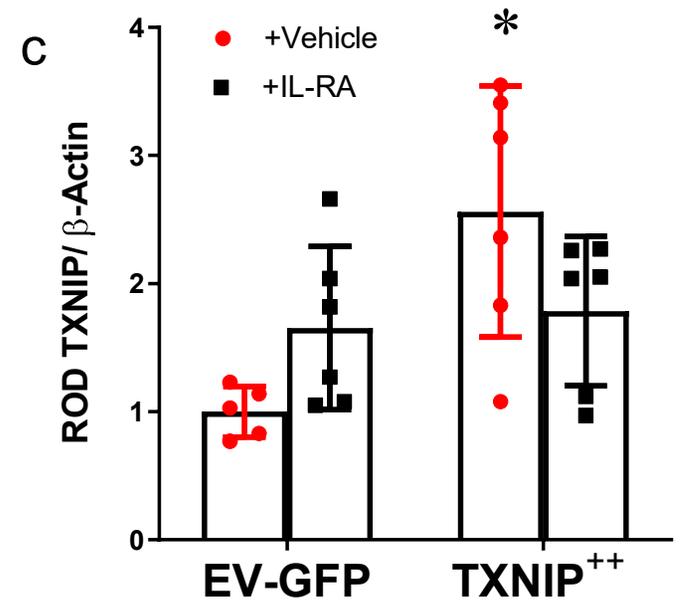
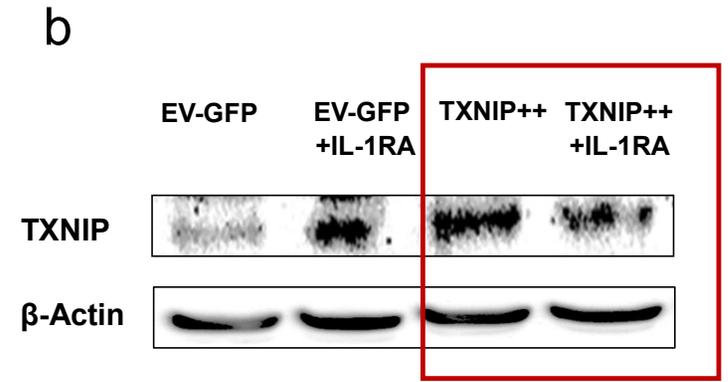
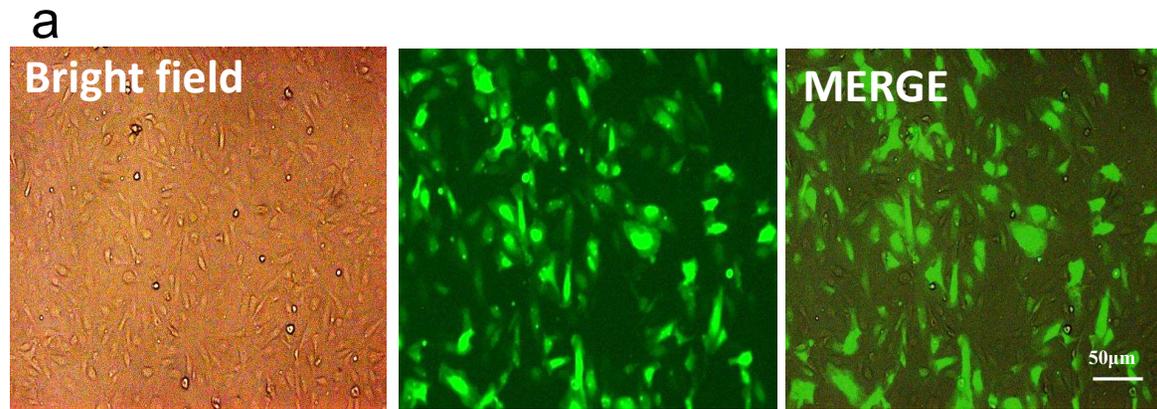


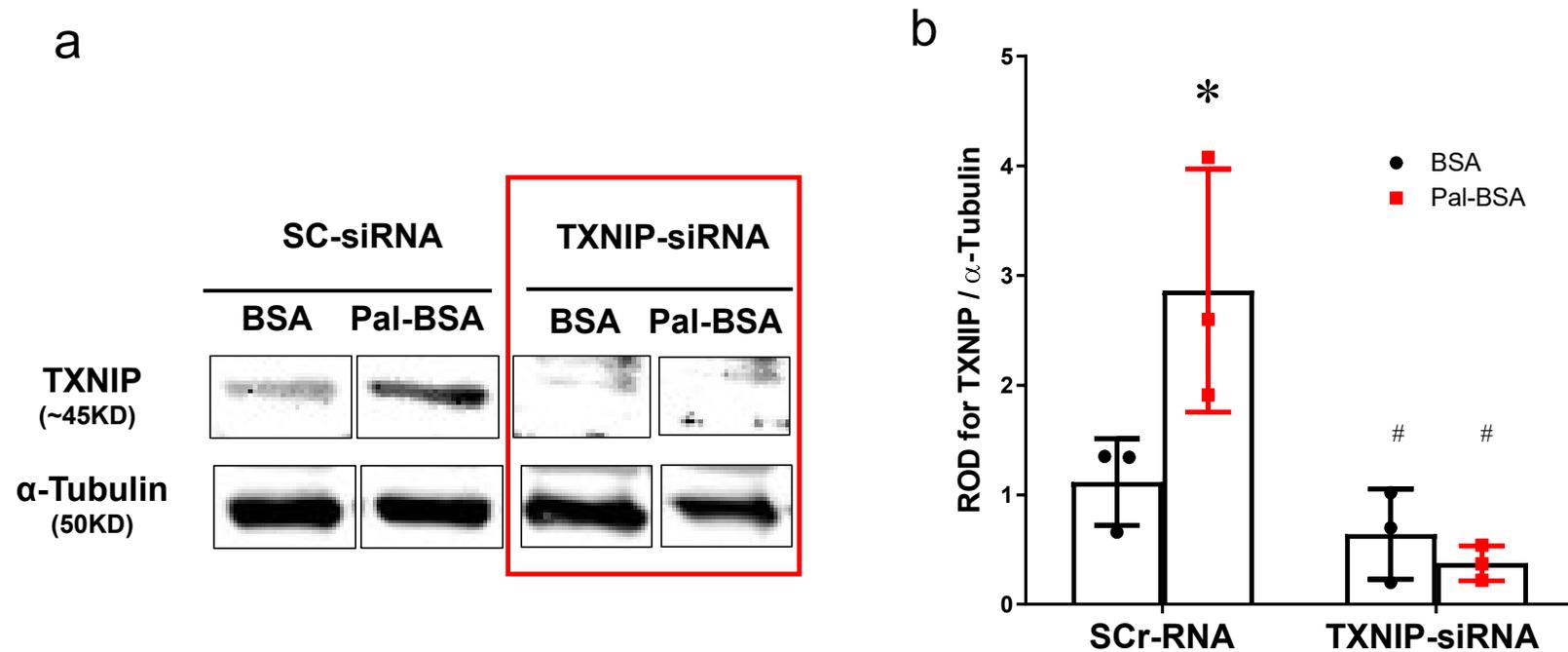
Supplementary-Figure-1. High fat diet (HFD) triggers retinal TXNIP expression after 8 weeks. (a) Representative blots of TXNIP and β -Actin and (b) statistical analysis for retinal TXNIP expression showing a 1.7-fold increase in TXNIP expression in WT when compared to normal diet (ND) controls, (n=4-5; * P-value <0.05 vs all groups). TXNIP knockout mice showed minimal expression of TXNIP. Two-way ANOVA analysis showed significant interaction between genotype (TXNIP deletion VS WT) and between type of diet (HFD vs ND).



Supplementary-Figure-2. Representative WB blots (a) and statistical analyses of protein expression of retinal NLRP3 (b) showed a trend towards higher levels of NLRP3 in WT-HFD group compared with WT-ND. In contrast, TKO-ND and TKO-HFD groups showed lower levels of all target protein expression compared with WT-ND group, respectively. Two-way ANOVA showed significant interaction between the genotype (TKO vs WT) across NLRP3 expression (n=12 mice/group; *P< 0.05 vs other groups).



Supplementary-Figure-3. Representative pictures for the transfection efficiency of TXNIP plasmid labeled with green fluorescence protein (GFP) or empty vector (EV-GFP) in human retinal endothelial cells (REC). (a) Representative images for bright field, and green fluorescence and merge showing a transfection efficiency of 80-90% as indicated by the ratio of GFP expressing cells to the total number of REC. (b) Representative blots of TXNIP and β -Actin and (c) statistical analysis for TXNIP overexpression in human REC cultures (TXNIP⁺⁺) showing a 2.5-fold increase in TXNIP expression when compared to empty vector (EV-GFP) controls, (n=5-6; * P-value <0.05 vs EV-GFP).



Supplementary-Figure-4. (a) Representative blots of TXNIP and α -tubulin and (b) statistical analysis for silencing TXNIP expression using siRNA in human REC cultures showing a 3-fold increase in TXNIP expression in response to palmitate (Pal-BSA) when compared to BSA-control in the cells transduced with scrambled RNA. Transduction with siRNA against TXNIP significantly abrogated TXNIP expression when compared to cells transduced with scrambled RNA (n=3; * P-value <0.05 vs other groups, # vs Scr-RNA).