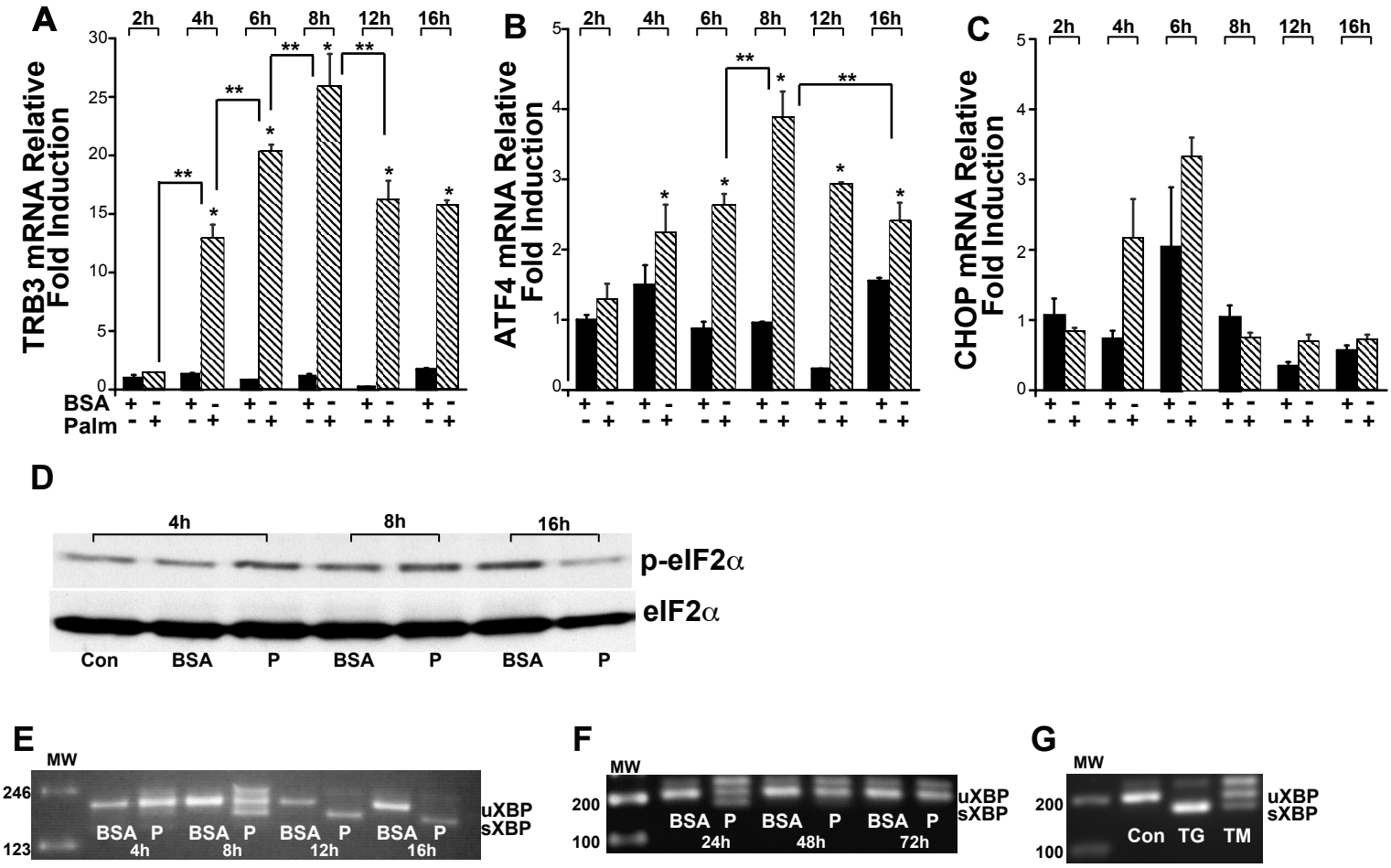
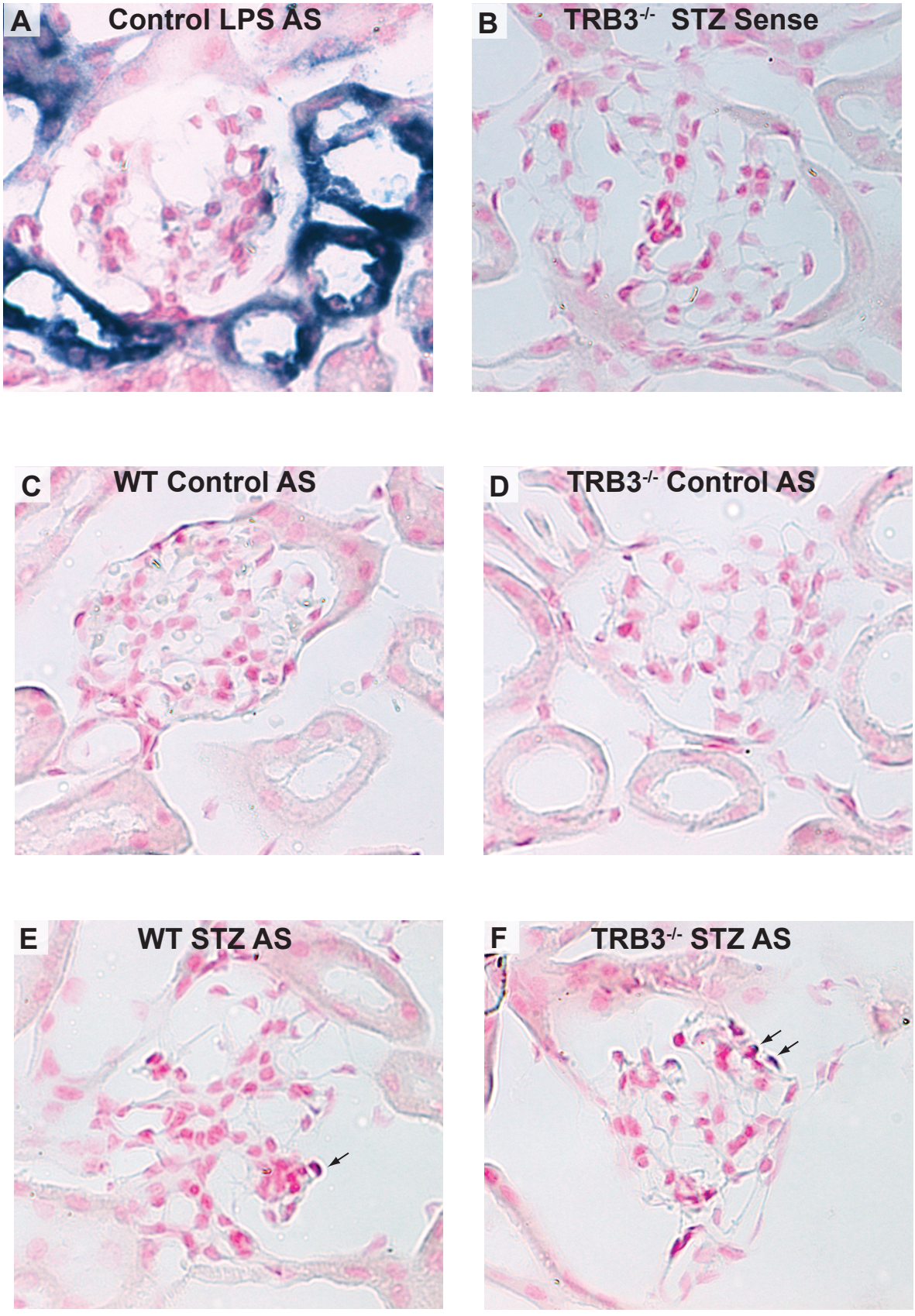
Supplemental Figure 1



Supplemental Figure 2



Supplemental Figures

Supplemental Figure 1. In podocytes palmitate rapidly induces ER Stress. Fully transformed and differentiated murine podocytes were treated with palmitate (palm) 300 μM (or bovine serum albumin, BSA) for the indicated time periods. We assessed mRNA expression of A. TRB3, B. ATF4 and C. CHOP. * represents $p < 0.05$ vs. BSA 2 hrs. D. Western blotting demonstrates that palmitate (P) rapidly induces phosphorylation of eukaryotic translation initiation factor 2α (eIF2α), by 16 hrs eIF2α is dephosphorylated. E,F. Semi-quantitative PCR studies revealed splicing of X-box binding protein (XBP1) 8-24 hrs (sXBP) after palmitate treatment, by 48 hrs XBP1 was no longer spliced (uXBP). G. XBP1 splicing after 24 hrs in thapsigargin (TG) and tunicamycin (TM)-treated podocytes.

Supplemental Figure 2. Lipocalin 2/Neutrophil Gelatinase-associated Lipocalin (Lcn2/Ngal) is expressed in the glomeruli of diabetic mice.

A. *In situ* RNA hybridization revealed tubular and glomerular staining of Lcn2/Ngal in LPS-treated mice. B. AS is anti-sense, whereas sense corresponds to the negative control. C-F. There is no obvious Lcn2/Ngal mRNA in the tubules or glomeruli of the citrate-treated mice, however we observed subtle glomerular staining of Lcn2/Ngal in both wildtype (WT) and $TRB3^{-/-}$ diabetic mice. The arrows demonstrate positive staining for Lcn2/Ngal.