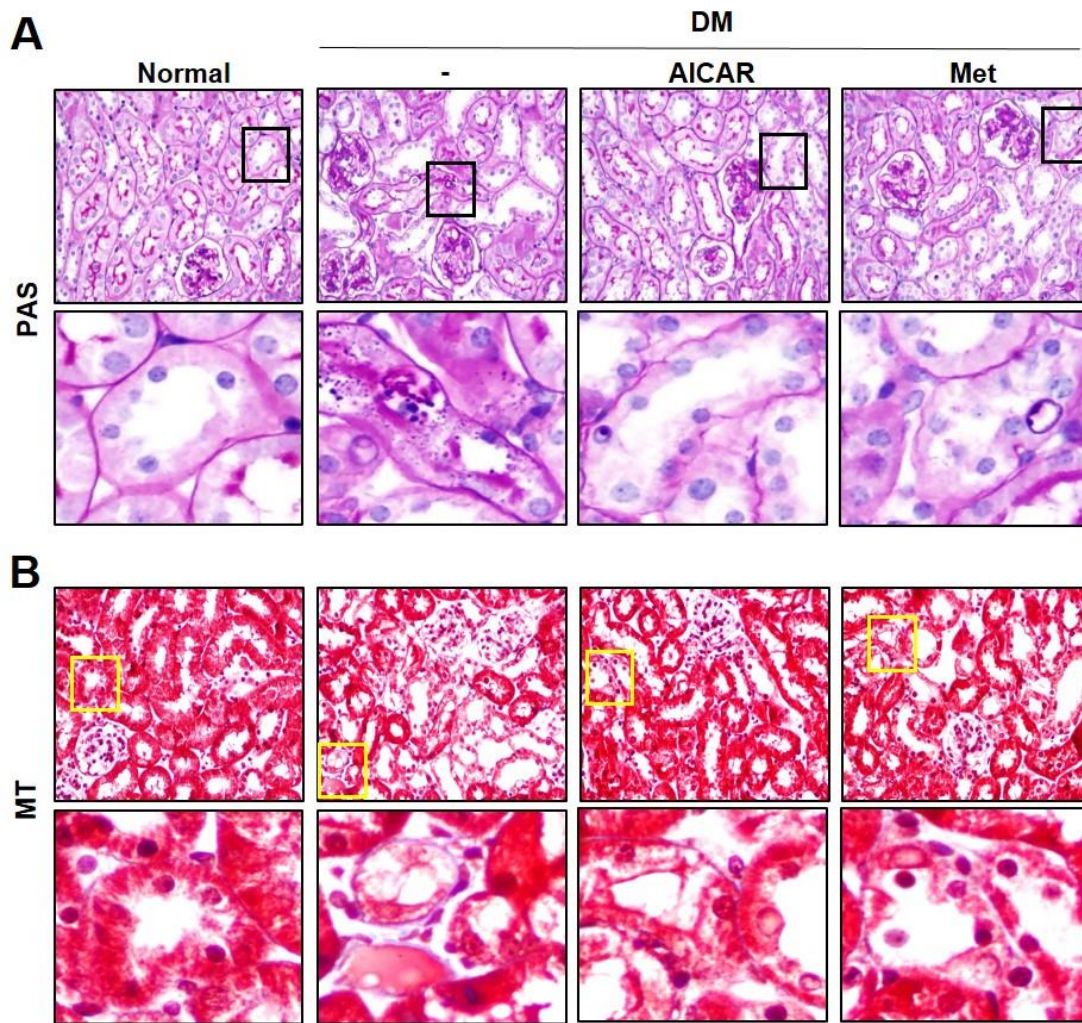
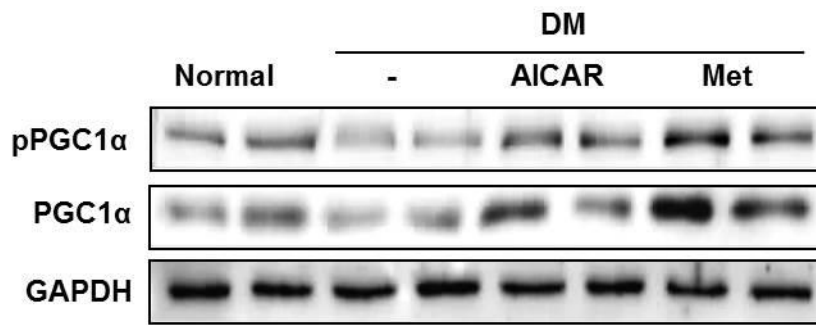


Supplementary figure 1. PGC1 $\alpha$  activators decrease mitochondrial ROS production under high glucose condition. (A) flow cytometry of human renal proximal cells labeled with MitoSox following treatment with AICAR or Metformin (\*p < 0.01 vs 5mM, #p < 0.01 vs 30mM)



Supplementary figure 2. AICAR or metformin improve renal morphologic characteristics in kidneys of streptozotocin (STZ)-induced diabetic mice. (A) Tubular dilatation and tubular epithelial disruption were observed in the diabetic control group. AICAR and metformin restore tubular injury to some degree. (B) Representative of photographs of the Masson's trichrome-stained kidneys showed decrease of renal fibrotic lesions in AICAR and metformin treatment group compared with diabetic control group.



Supplementary figure 3. Administration of AICAR and metformin restore PGC1 $\alpha$  activity in diabetic kidneys. Western blot analysis showed reduced expression of pPGC1 $\alpha$  and PGC1 $\alpha$  in diabetic kidneys, whereas their expression was recovered in the AICAR and metformin groups.