**Empagliflozin reduces left ventricular mass increase and improves cardiomyocyte hypertrophy after 5/6 nephrectomy.**

**Running title: Empagliflozin improves cardiomyocyte hypertrophy.**

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**Figure S1**

**Supplementary figure 1: snRNA-seq identified cell cluster in heart. (A)** Cell clusters were determined via Seurat’s default graph-based clustering strategy using the “FindNeighbors” and “FindClusters” functions. The top 40 principal components (PCs) and 1.45 resolution were used to compute the cell clusters. Forty-two cell clusters were identified in the dataset and represented via UMAP. **(B)** Cluster-based cell type annotation was performed on the expression of known marker genes which also identified clusters of cell multiplets and a single cluster representing low-quality nuclei that were removed for further analysis.

Figure S2

**Supplementary figure 2:** **snRNA-seq identified the major immune cell cluster in heart.** **(A)** Dimensionality reduction and clustering of 2943 immune cells. 12 immune cell clusters were identified. **(B)** UMAP embeddings of snRNA-seq data for each group: The circle marks the monocytes/neutrophils cluster. **(C)** Stacked bar graphs depicting the alterations in the percentage of different immune cell clusters between groups. **(D-M)** Comparison of the percentage of different immune cell clusters in each group. Sham: Sham operation; 5/6Nx: 5/6 nephrectomized rat model; PBO: Placebo; TELM: Telmisartan; EMPA: Empagliflozin. Values displayed are mean ± SEM. Compared with the 5/6NX+PBO group, p<0.05 is considered to be statistically significant. \*\*p<0.01. One-way ANOVA with Bonferroni's post hoc test was used for between-group comparisons.