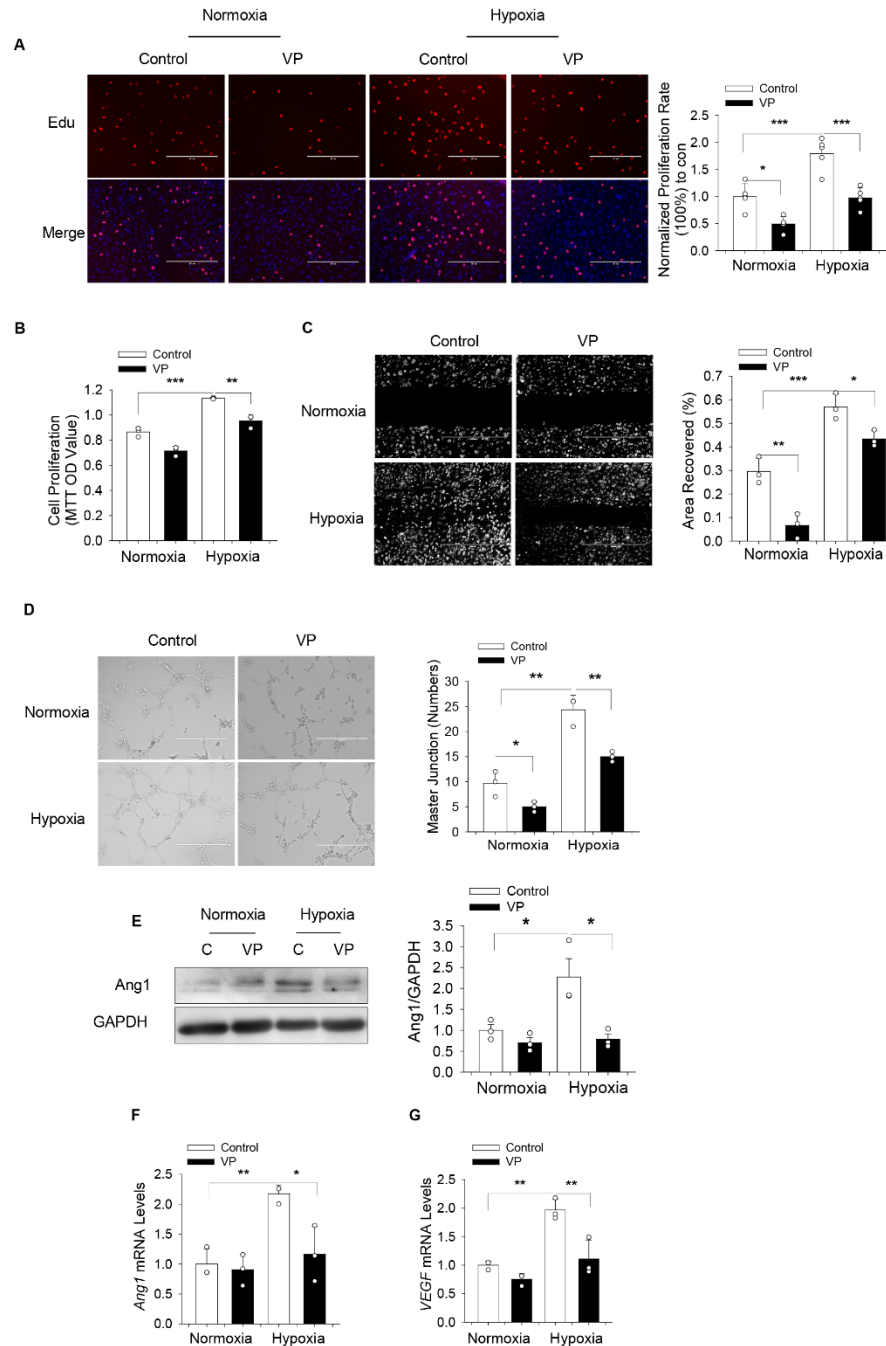
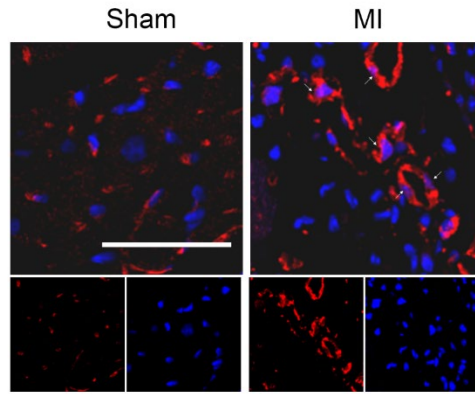


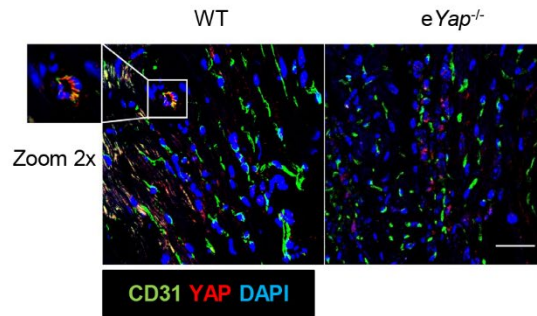
## Supplemental Figures



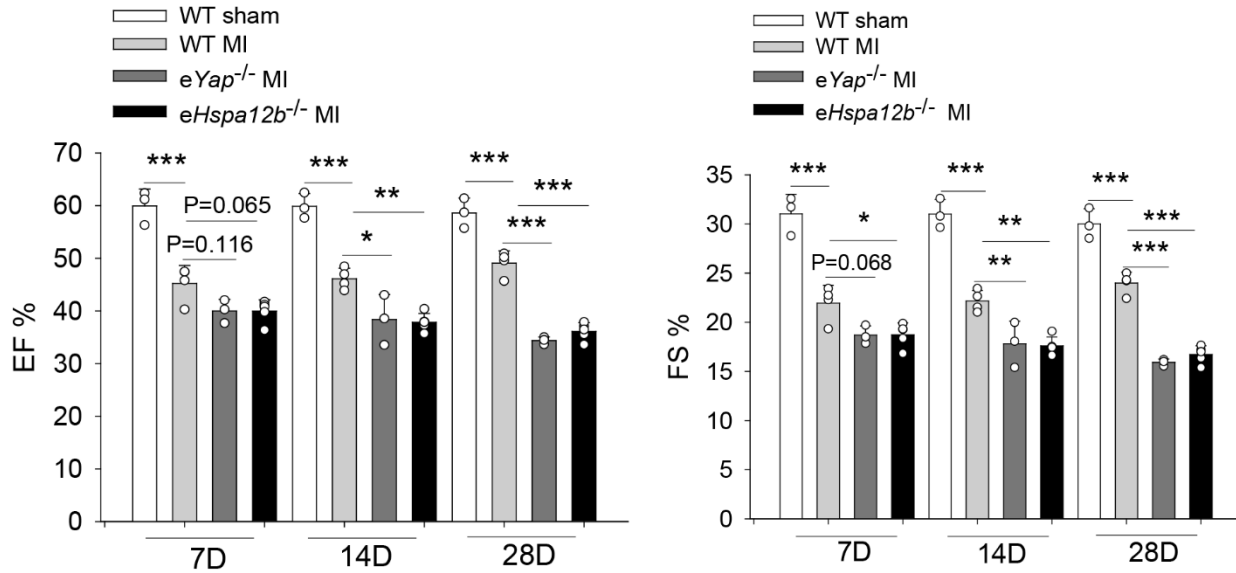
**Supplemental Figure 1. YAP inhibition suppresses hypoxia-induced endothelial cell proliferation, migration, and angiogenesis.** Endothelial cells were treated with YAP inhibitor, Verteporfin (VP, 1 mM/L) before the cells were subjected to hypoxic challenge. Endothelial cell proliferation was determined by Edu incorporation (**A**) and MTT assay (**B**), scale bars: 400µm. **C**, Cell migration was determined by wound-healing assay, scale bars: 400µm. **D**, Angiogenesis was examined by Matrigel assay, scale bars: 400µm. Expression of *Ang1* and *VEGF* were examined by Western blot (**E**) and qRT-PCR (**F-G**). n=3-5 independent experiments/group. Comparisons of data between groups were made using one-way ANOVA followed by Tukey's procedure. \* P < 0.05, \*\* P < 0.01, \*\*\* P < 0.001 compared with indicated group.



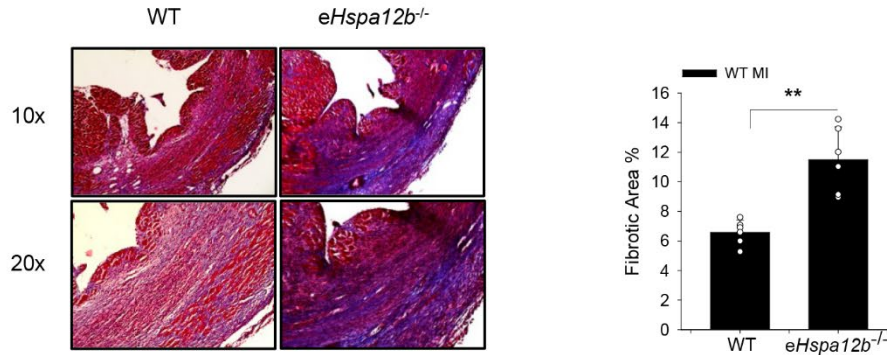
**Supplemental Figure 2. MI induced HSPA12B expression and nuclear translocation.** HSPA12B nuclear localization was examined by immunofluorescent staining with anti-HSPA12B antibody (red). Nucleus were stained with DAPI (blue). n=3/group. Scale bar: 100 $\mu$ m.



**Supplemental Figure 3.** Immunofluorescent staining of YAP expression in heart tissue sections. n=3/group. Scale bar: 50 $\mu$ m.



**Supplemental Figure 4. Endothelial specific *Hspa12b* (e*Hspa12b*<sup>-/-</sup>) or *Yap* (e*Yap*<sup>-/-</sup>) knockout mice exhibit an exacerbated cardiac dysfunction after MI.** Cardiac function was examined by echocardiography 7, 14 and 28 days after surgery among WT sham (n=3), WT MI (n=4), e*Yap*<sup>-/-</sup> MI (n=3) and e*Hspa12b*<sup>-/-</sup> MI (n=5) groups. Comparisons of data between groups were made using one-way ANOVA followed by Tukey's procedure. \* P < 0.05, \*\* P < 0.01, \*\*\* P < 0.001 compared with indicated group.



**Supplemental Figure 5. Endothelial specific *Hspa12b* knockout (e*Hspa12b*<sup>-/-</sup>) mice exhibit an increased cardiac fibrosis after MI.** Cardiac fibrosis was examined by staining of heart tissue sections with Trichrome stain (Masson) kit. n=6/group. Comparison of data between groups was made using t-test. \*\* P < 0.01 compared with indicated groups.

**Table 1. PCR primers used for CHIP analysis.**

<b>Names</b>	<b>Sequences (5'-&gt;3')</b>
HSPA12B Forward Primer	TGCTGATATGGCGTGGAGAC
HSPA12B Reverse Primer	CACCCCCTTCTGGTCAGTTC
YAP Forward Primer	GCGGATATGAACATGGCTGCT
YAP Reverse Primer	TGGGCAAAGTTCCTATGCTG
CTGF Forward Primer	AGGCTTTTATACGCTCCGGG
CTGF Reverse Primer	TGAGTGTC AAGGGGTCAGGA