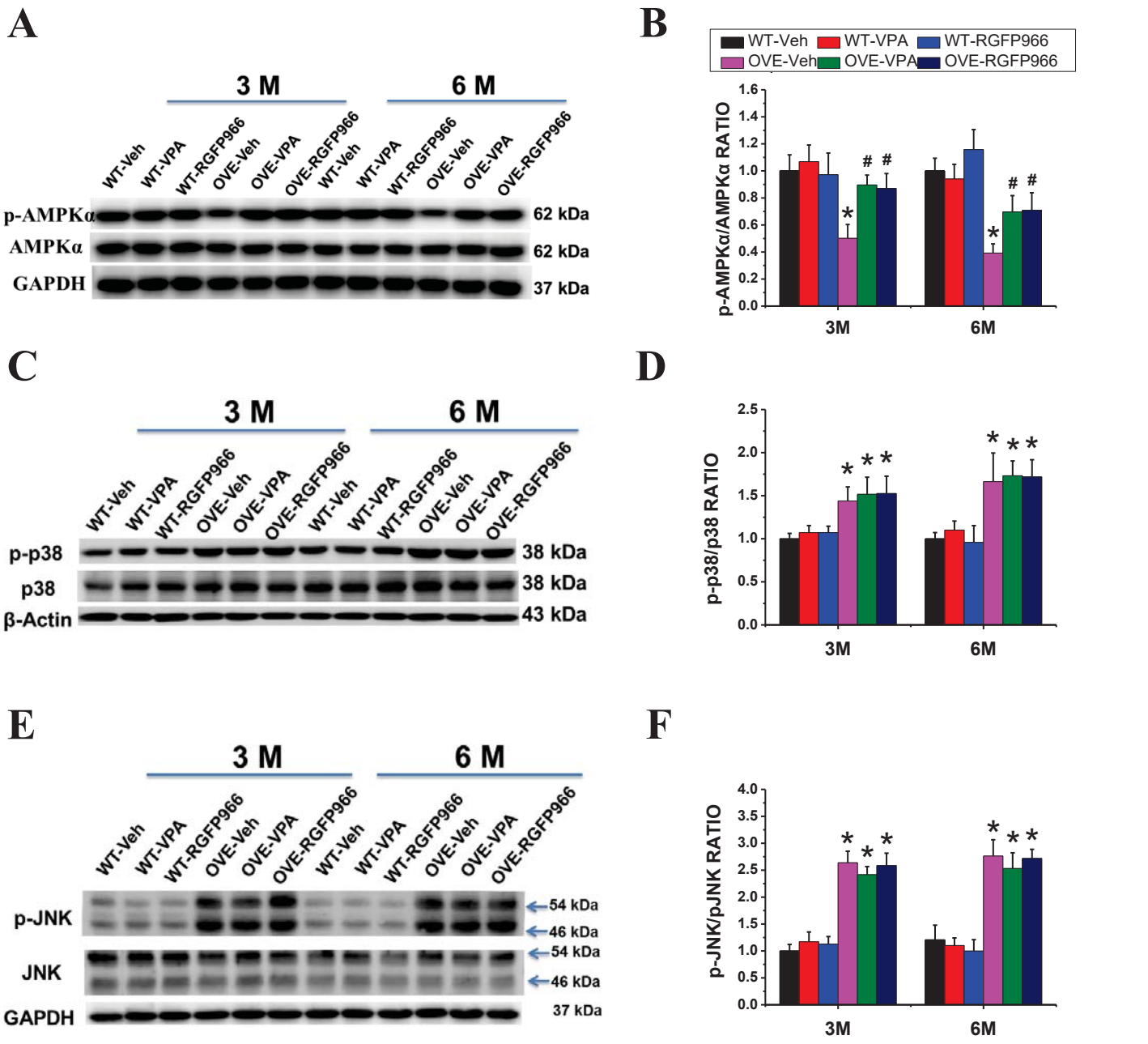
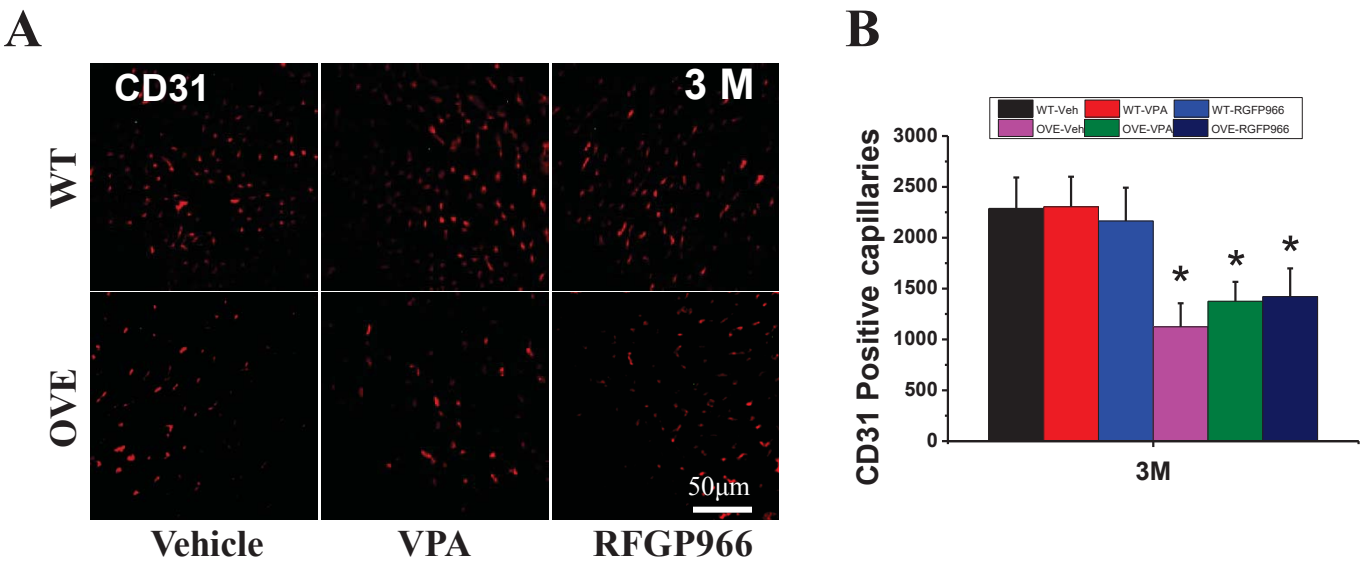
Supplementary Fig 1



Supl. Figure 1: Representative results of Western blot of p-AMPK (A). Densitometric analysis of Western blot of p-AMPK protein levels (B). Representative results of Western blot of p-p38, p38, p-JNK and JNK (C). Densitometric analysis of Western blot of p-p38 and p-JNK protein levels (D, E). Data are presented as the mean ± S.D. n=5-7. $^{*}P < 0.05$ vs. WT-Veh; $^{\#}P < 0.05$ vs. OVE-Veh at the same time point.

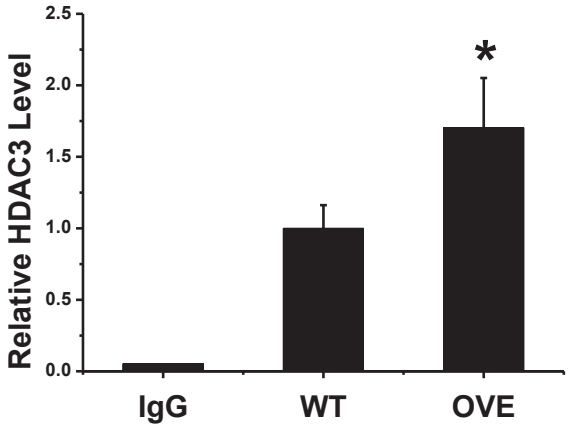
Supplementary Fig 2



Suppl. Figure 2 : RGFP966 didn't improved neovascularization. Representative images of CD31 staining and quantification of CD31 positive capillaries (A, B). The binding of HDAC3 on the DUSP5 gene promoter region revealed by ChIP (C). Data are presented as the mean ± S.D. n=5-7. *$P < 0.05$ vs. WT-Veh.

Method: CD31 immunostaining was performed to detect the vascular density. Briefly, 7-μm-thick cardiac frozen sections were fixed with ice aceton and rinsed by PBS, then the frozen sections were blocking with 5%BSA. After blocking, the sections were incubated with primary antibody of CD31 (BD Pharmingen, San Jose, CA, USA) overnight at 4° C followed by Cy^{TM} 3 Goat anti-Rat secondary antibody 1 h. After incubation, sections were rinsed with PBS for 3 times and were visualized via a fluorescence microscopy (XI 71 Olympus, Tokyo, Japan). Fluorescence intensity was analyzed by the use of WCIF ImageJ software.

Supplementary Fig 3



Suppl. Figure 3 : OVE26 mice showed the increasing HDAC3 binding to DUSP5 promoter. The binding of HDAC3 on the DUSP5 gene promoter region revealed by ChIP. Normal mouse IgG was used as a negative control and data were normalized to input DNA samples. Data are presented as the mean ± S.D. WT=4, OVE=5. *P < 0.05 vs. WT.