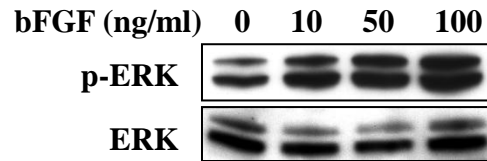


**Supplementary Figure 1. Alizarin Red S staining of SHED treated by different doses of MAPK inhibitors with bFGF.** Different doses of JNK, P38 and ERK1/2 inhibitor were used to rescue bFGF caused osteogenic deficiency of SHED *in vitro*. 1 and 5  $\mu$ M JNK inhibitor had the similar effect on osteogenic differentiation of SHED after bFGF treatment . 1, 5 and 10  $\mu$ M P38 inhibitor had same effect and almost abolished osteogenic differentiation. Different doses of ERK1/2 inhibitor rescued osteogenesis of SHED after bFGF treatment. 5 and 10  $\mu$ M ERK1/2 inhibitor had the similar effect.



**Supplementary Figure 2. Dose dependent effect of bFGF on activation of ERK1/2 pathway.** Total protein of SHED was harvested 48h following different doses of bFGF addition and ERK phosphorylation was measured by Western blotting with an ERK antibody that recognized the activated form of ERK. The result showed that increasing the dose of bFGF could better activate ERK1/2 pathway.