

**SUPPLEMENTARY FIG. S3.** Chemical inhibitor LY294002 of the PI3K/AKT pathway strengthened the osteogenic suppression of MSCs. As shown in (**A**), the inhibitory effect of ICAM-1 on ALP activity and bone matrix mineralization was strengthened after the specific inhibitor LY294002 of the PI3K/AKT was added to the MSC culture. Furthermore, the mRNA expression of Runx2 and OCN in ICAM-1 MSCs was downregulated by LY294002 (**B, C**) (\*p<0.05). Scale bars represent  $100 \,\mu\text{m}$  (**A**).