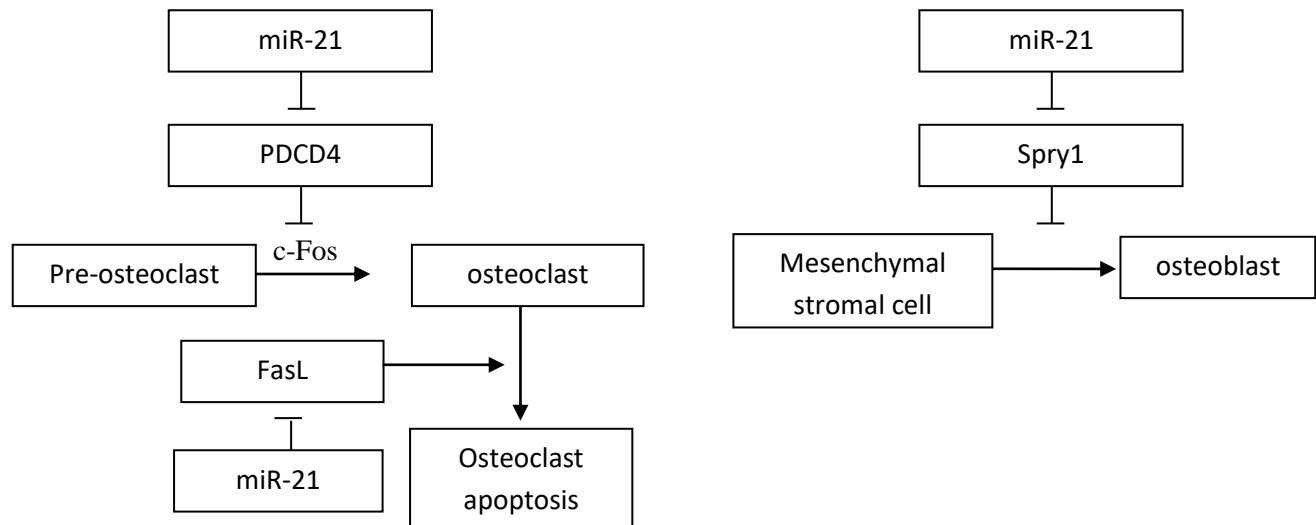


S 1 The role of miRNA-21 in bone resorption and bone formation



(A) MiR-21 enhances osteoclastogenesis by inhibiting Programmed cell death 4 (PDCD4) gene which results in an increase of RANKL induced c-Fos signaling pathway in the osteoclast. MiR-21 also inhibits osteoclast apoptosis through Fas ligand (FasL) regulation.

(B) MiR-21 enhances osteoblastogenesis by inhibiting Sprouty homolog 1(Spry1) gene.