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Supplemental Information

GLP2 Promotes Directed Differentiation from Osteosarcoma Cells to Osteoblasts and Inhibits Growth of Osteosarcoma Cells

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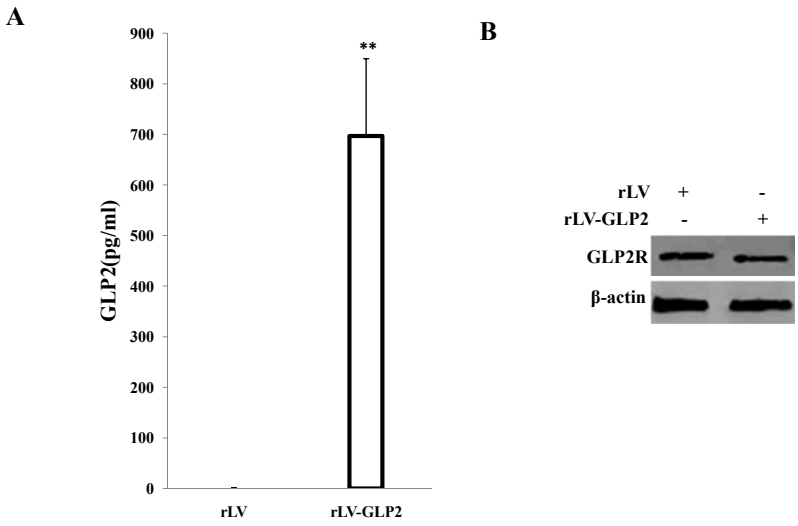
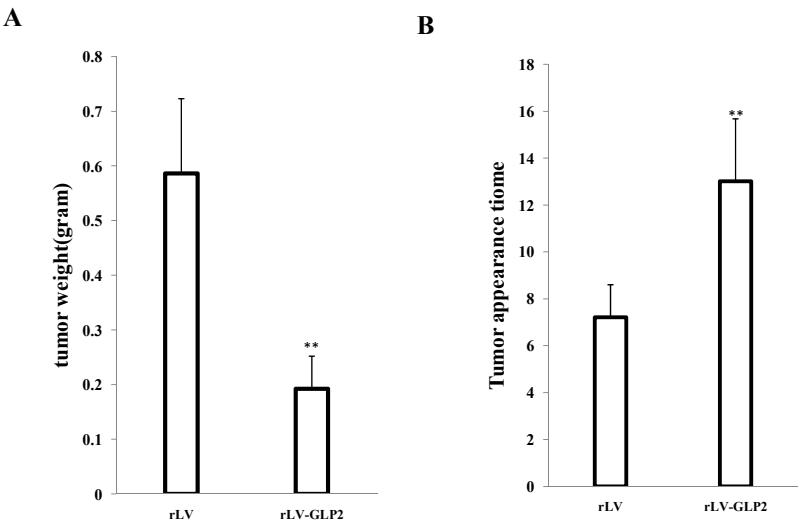
FigureS1



FigureS2



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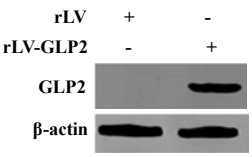
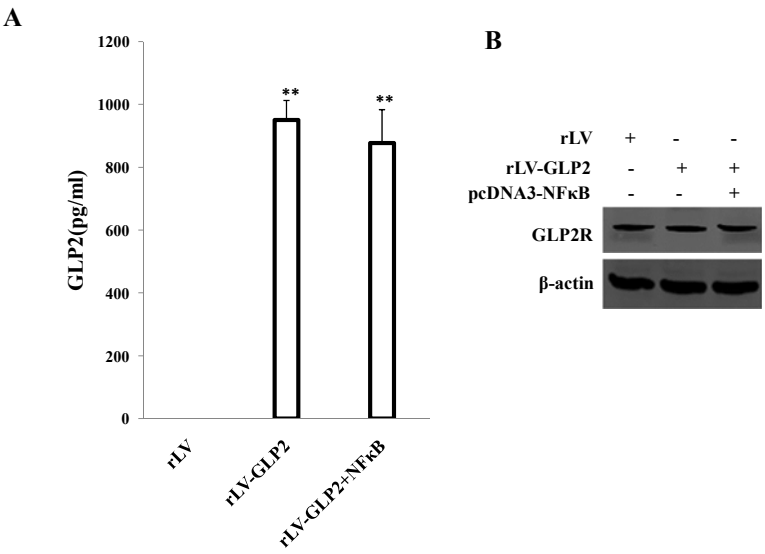


FigureS4



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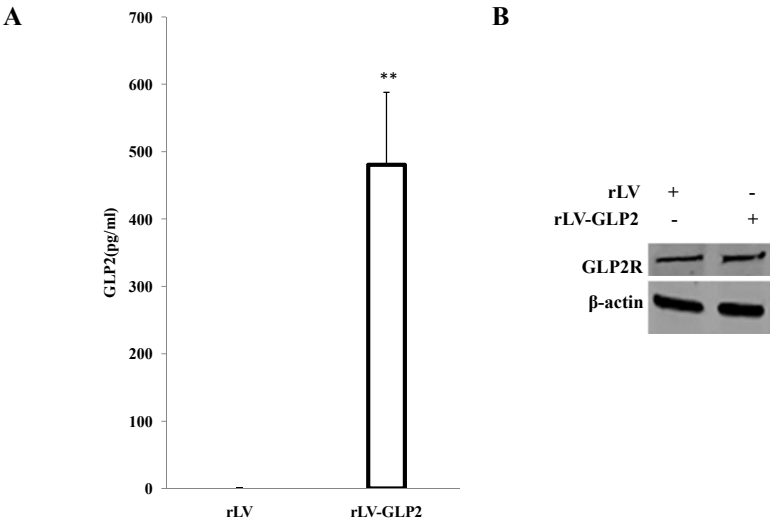

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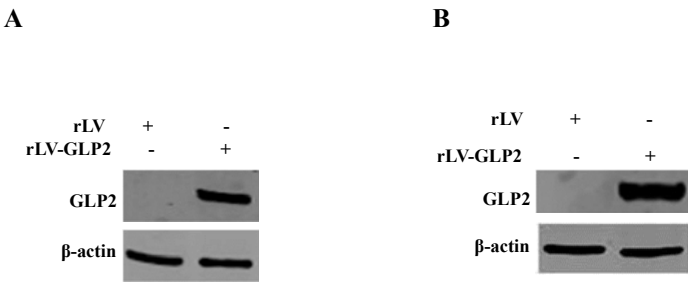
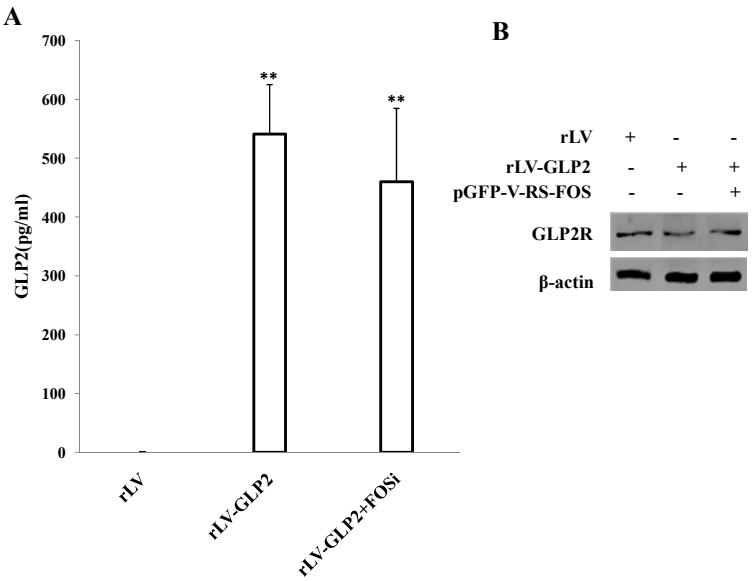


FigureS7



FigureS8

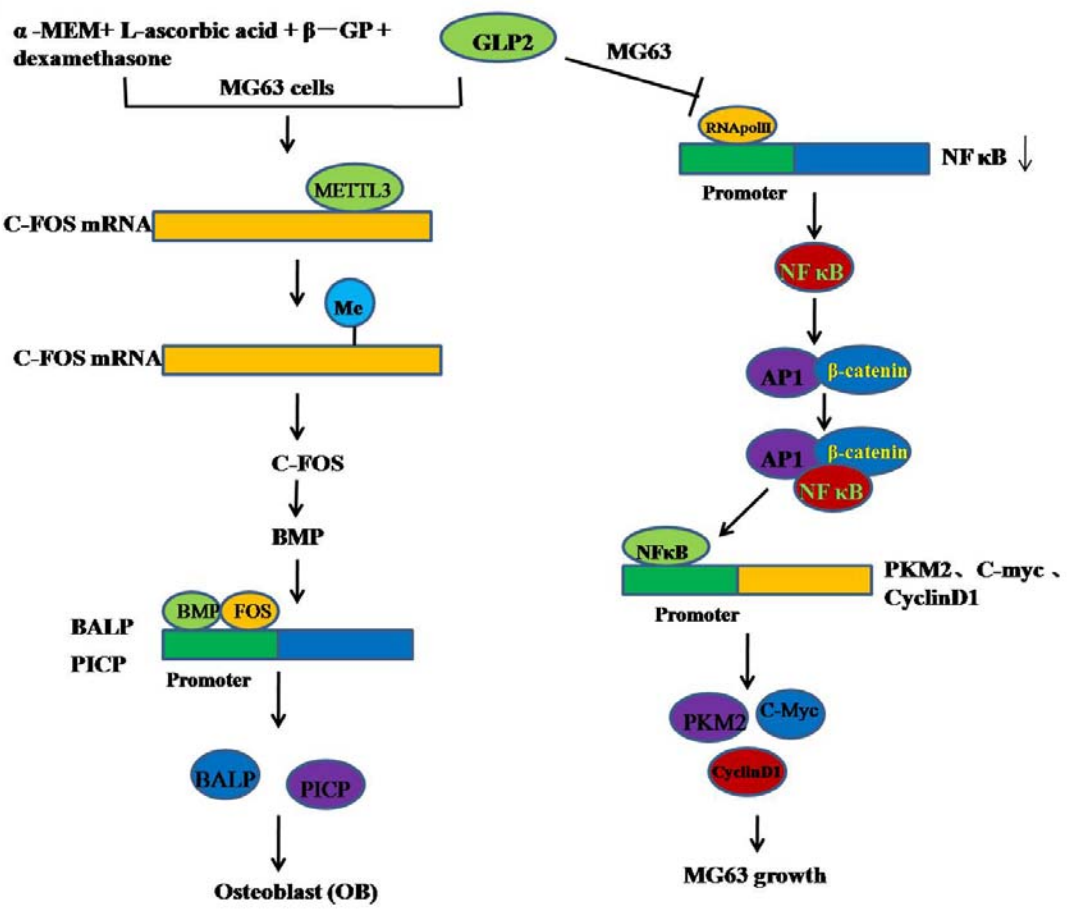


FIGURE LEGENDS

FigureS1 A. ELISA assay of released level of GLP2 in osteosarcoma MG63 infected with rLV-Green-GLP2 or rLV. **B.** Western blotting with anti-GLP2R in MG63 infected with rLV-GLP2 or rLV. β-actin as internal control.

FigureS2 A. Orthotopic osteosarcoma weight(gram) in rLV-GLP2 group or rLV group . Data were means of value from ten athymic Balb/c mice, mean±SEM, n=10, **,P<0.01. B. The Orthotopic osteosarcoma appearance time in rLV-GLP2 group or rLV group. Data were means of value from ten athymic Balb/c mice, mean±SEM, n=10, **,P<0.01.

FigureS3 Western blotting with anti-GLP2 in MG63 infected with rLV-GLP2 or rLV. β-actin as internal control.

Figure S4 A. ELISA assay of released level of GLP2 in osteosarcoma MG63 infected with rLV, rLV-Green-GLP2,rLV-GLP2 and rLV-GLP2 plus pcDNA3-NFκB. Data were means of value from ten athymic Balb/c mice, mean±SEM, n=10, **,P<0.01. **B.** Western blotting with anti-GLP2R in MG63 infected with rLV, rLV-Green-GLP2 and rLV-GLP2 plus pcDNA3-NFκB. β-actin as internal control.

FigureS5 A. ELISA assay of released level of GLP2 in OB cells induced from MG63 infected with rLV or rLV-GLP2. Data were means of value from ten athymic Balb/c mice, mean±SEM,

n=10, **,P<0.01. **B.** Western blotting with anti-GLP2R in OB cells induced from MG63 infected with rLV or rLV-GLP2. β-actin as internal control.

Figure 6 A. Western blotting with anti-GLP2 in OB cells induced from MG63 infected with rLV or rLV-GLP2. β-actin as internal control. **B.**Western blotting with anti-GLP2 in OB cells induced from MG63 infected with rLV or rLV-GLP2. β-actin as internal control.

FigureS7 A. ELISA assay of released level of GLP2 in OB cells induced from MG63 infected with rLV, rLV-GLP2, rLV-GLP2 plus pGFP-V-RS-C-FOS. Data were means of value from ten athymic Balb/c mice, mean±SEM, n=10, **,P<0.01. **B.** Western blotting with anti-GLP2R in OB cells induced from MG63 infected with rLV, rLV-GLP2, rLV-GLP2 plus pGFP-V-RS-C-FOS. β-actin as internal control.

Figure S8 The schematic illustrates a model of GLP2 inhibits osteosarcoma carcinogenesis and promotes the differentiation of MG63 to osteoblast (OB). GLP2 inhibits the expression and activity of NFκB , triggering the decrease of C-Myc,PKM2,CyclinD1 in osteosarcoma cells. On theother hand, excessive GLP2 significantly increased the expression of osteogenesis-associated genes (e.g. Ocn and PICP) dependent on C-Fos-BMP signaling which promotes directed-differentiation from osteosarcoma cells to osteoblast.