Supplementary Figure 1. Correlation of PFKFB3 expression level with HIF-1α, Ki-67, and epithelial–mesenchymal transition (EMT) markers. IHC was used to determine the protein expression level of PFKFB3 and HIF-1α, Ki-67, EMT markers E-cadherin, Vimentin, and Snail. The IHC score of PFKFB3 is plotted with the IHC score of HIF-1α, Ki-67, EMT markers (A-E). Note that PFKFB3 expression level is negatively correlated with E-cadherin but positively correlated with HIF-1α, Ki-67, Vimentin, and Snail.

\[ \gamma = 0.813, P = 0.000 \]

\[ \gamma = 0.712, P = 0.000 \]

\[ \gamma = 0.748, P = 0.000 \]

\[ \gamma = 0.717, P = 0.000 \]

\[ \gamma = -0.512, P = 0.000 \]
Supplementary Figure 2. NF-kB pathway was involved in PFKFB3-induced the expression of MMPs in GC cells. Western blot showed that pretreatment with helenalin in SGC-7901 cells could abolish upregulation of MMP2, MMP9 and MMP14 induced by PFKFB3 overexpression (A). Helenalin treatment could downregulate the expression of MMP2, MMP9 and MMP14 in AGS cells, which was consistent with that induced by PFKFB3 knockdown expression (B).