Figure S1. TNFα dose-dependently activates MMP1, 3 and 13 expression in chondrocytes. Chondrocytes were treated with TNFα for 24 h and analyzed by (A) RT-qPCR and (B) immunoblotting. The results of qPCR did not reach statistical significance. phos, phosphorylated; MMP, matrix metalloproteinase; TNFα, tumor necrosis factor α; RT-qPCR, reverse transcription quantitative PCR.

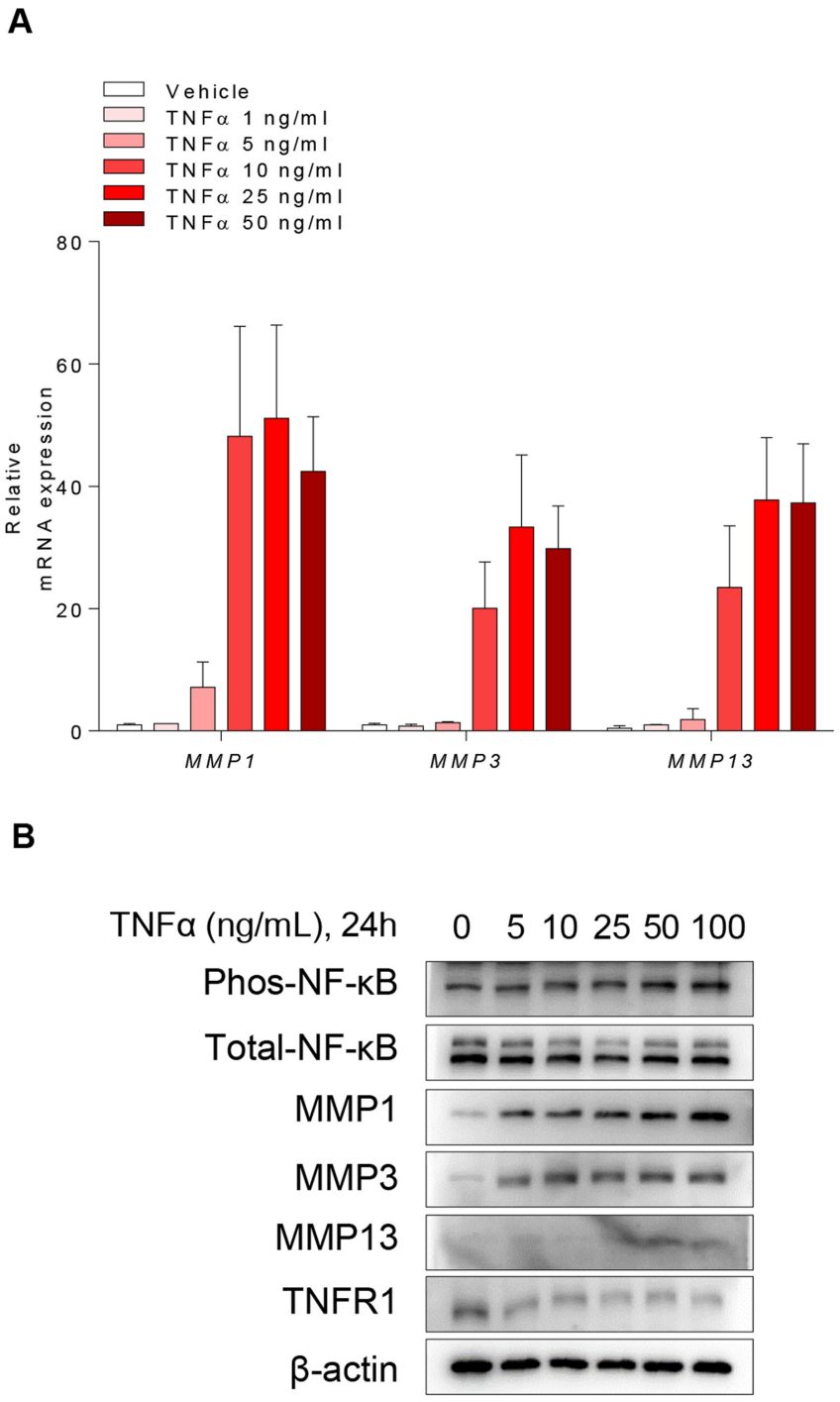

Figure S2. TNFα upregulates MMP1, 3 and 13, and downregulates TIMP1 and TIMP2 expression in chondrocytes. Raw images for human MMP array. Significant differences are marked in red compared with the vehicle. TIMP, TIMP metallopeptidase inhibitor; MMP, matrix metalloproteinase; TNFα, tumor necrosis factor α.

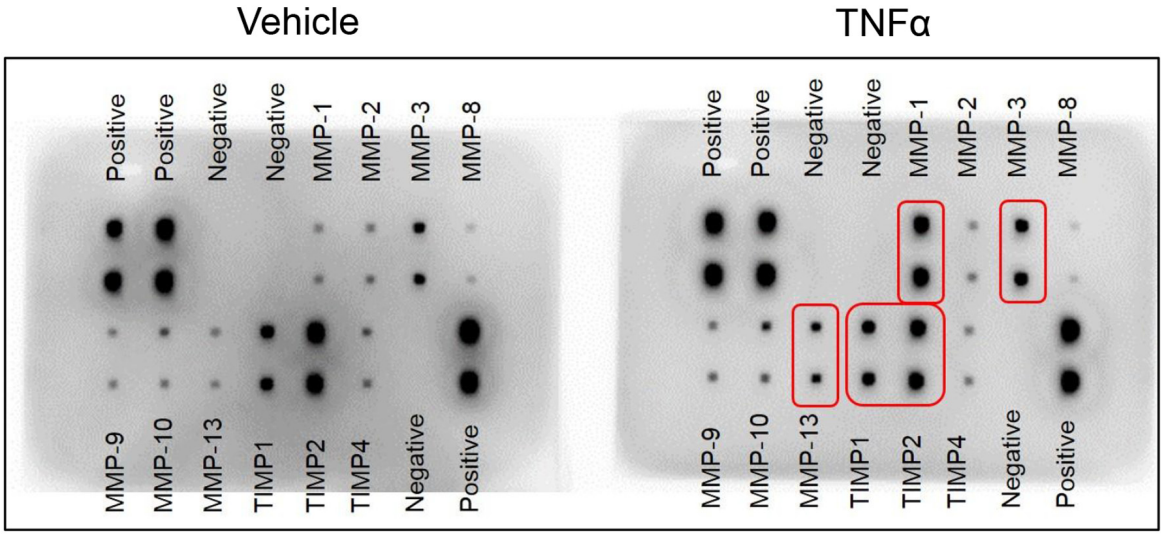

Figure S3. TNFα inhibits TIMP1 and TIMP2 expression in chondrocytes. Chondrocytes were treated with TNFα for 24 h and subjected to immunofluorescence to detect TIMP1 and TIMP2 expression. Representative images are shown. Scale bar, 50 μm. TIMP, TIMP metallopeptidase inhibitor; TNFα, tumor necrosis factor α.

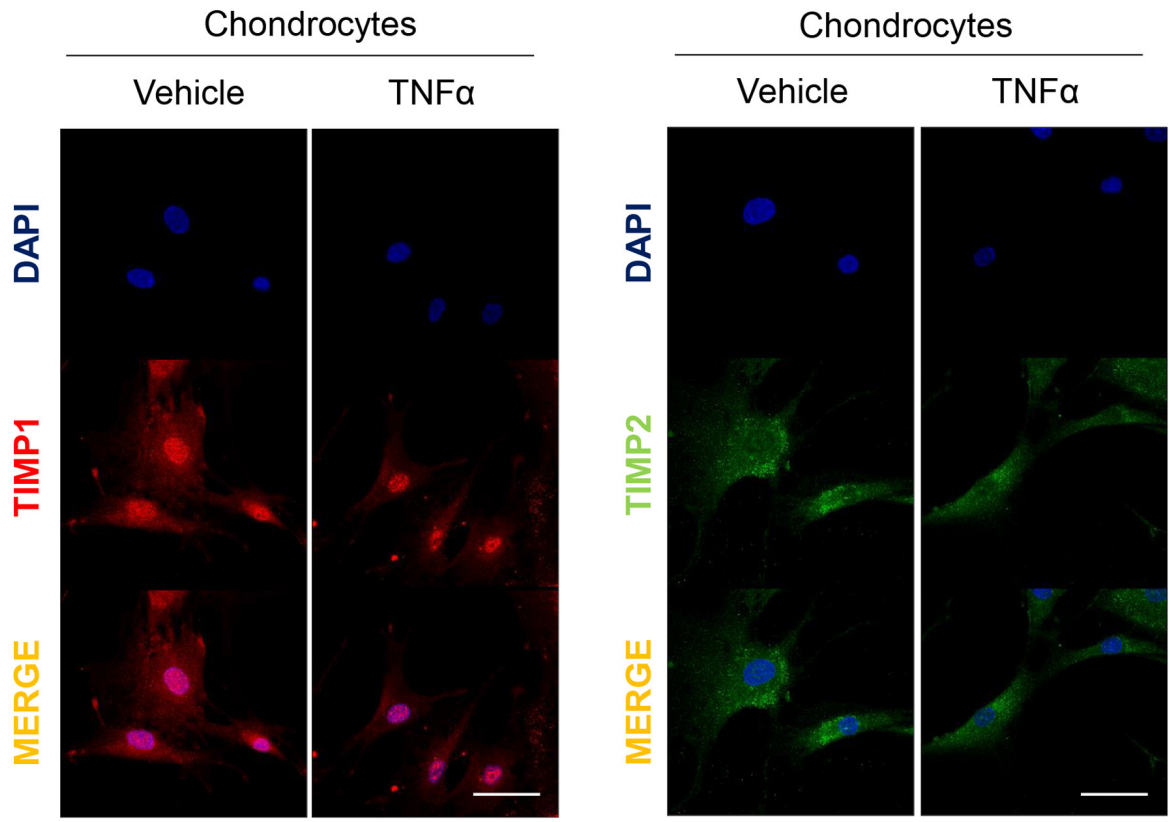

Figure S4. NF-κB inhibitor suppresses TNF-activated MMP expression in chondrocytes. Chondrocytes were stimulated with vehicle or TNFα in the presence of high- or low-dose BAY (NF-κB inhibitor) for 24 h and mRNA expression was analyzed by RT-qPCR. The results of RT-qPCR did not reach statistical significance. MMP, matrix metalloproteinase; TNFα, tumor necrosis factor α; RT-qPCR, reverse transcription-quantitative PCR.