



Additional file 6:

Two different transcriptional pathways that MTX induces apoptosis to synovial fibroblasts; PAR bZIP-Per2 transcriptional pathway and PAR bZIP-Bik transcriptional pathway.

We propose here that MTX induces apoptosis in synovial cells through activated binding of PAR bZIP to D-box in two different genes, *Per2* and *Bik*, and these dual pathways work independently, but synergistically.