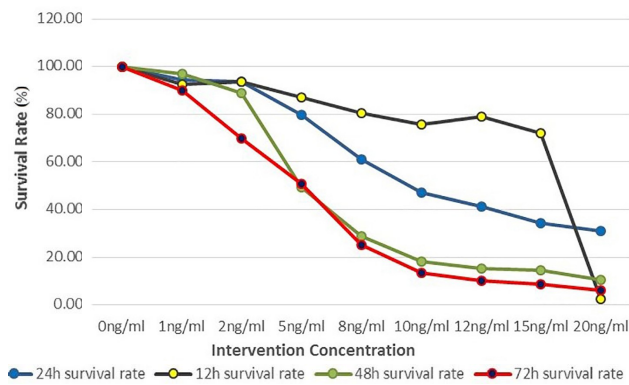
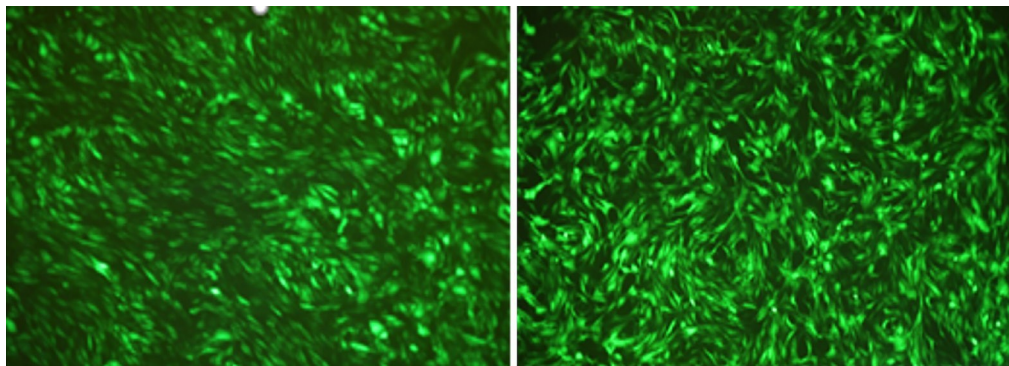


Supplementary Figure a. Images of the seeded Kashin-Beck disease (KBD) chondrocytes. a) The morphology of the seeded primary chondrocytes under microscope (10×). b) The Safranin O staining of the seeded chondrocytes (20×). c) Type II collagen staining of KBD chondrocytes by the immunocytochemistry (20×).



Supplementary Figure b. Effect of T-2 toxin on the activity of C28/12 cells under different concentrations and times.



(a) The negative control group under 40 times microscope **(b) The COMP overexpression group under 40 times microscope**

Supplementary Figure c. Fluorescence abundance of green fluorescence protein after transient transfection of cartilage oligomeric matrix protein (COMP).

Supplementary Table i. Primer sequences for quantitative reverse transcription polymerase chain reaction.

Gene symbol	Primer sequences
<i>GAPDH</i>	Forward primer 5'-GCACCGTCAAGGCTGAGAAC-3' Reverse primer 5'-TGGTGAAGACGCCAGTGA-3'
<i>COMP</i>	Forward primer 5'-AGGGTACCCAACCTCAGACCAGAAG-3' Reverse primer 5'-TGTTAGGCACCGTGGGACAG-3'
<i>XIAP</i>	Forward primer 5'-CATCCATGGCAGATTATGAAGCA-3' Reverse primer 5'-CTTCACTGGGCTTCCAATCAGTTAG-3'
<i>Survivin</i>	Forward primer 5'-AGGTCATCTCGGCTGTTCTCTG-3' Reverse primer 5'-TCATCCTCACTGCGGCTGTC-3'
<i>SOX9</i>	Forward primer 5'-GGAGATGAAATCTGTTCTGGGAATG-3' Reverse primer 5'-TTGAAGGTTAACTGCTGGTGTCTG-3'
<i>Fas</i>	Forward primer 5'-TGGGAGGAAGACAGTGGAGAA-3' Reverse primer 5'-ACTCGGAATGTGGCTGTG-3'
<i>BAX</i>	Forward primer 5'-GACGAACTGGACAGTAACATGA-3' Reverse primer 5'-GCAAAGTAGAAAAGGGCGACA-3'
<i>MMP13</i>	Forward primer 5'-TCCCAGGAATTGGTGATAAAGTAGA-3' Reverse primer 5'-GCATGACGGAACAATACGG-3'
<i>Collagen II</i>	Forward primer 5'-CCAGTTGGGAGTAATGCAAGGA-3' Reverse primer 5'-ACACCAGGTTACCAGGTTCA-3'
<i>Caspase 3</i>	Forward primer 5'-GACTCTGGAATATCCCTGGACAACA-3' Reverse primer 5'-AGGTTTGCTGCATCGACATCTG-3'

BAX, Bcl-2-associated x protein; COMP, cartilage oligomeric matrix protein; GAPDH, glyceraldehyde 3-phosphate dehydrogenase; SOX9, sex determining region Y-box 9; XIAP, x-linked inhibitor of apoptosis protein.