Supplemental information

MicroRNA-199a-5p accelerates nucleus pulposus cell apoptosis and IVDD by inhibiting SIRT1-mediated deacetylation of p21

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Supplementary Figure 1  A, Morphological characteristics of nucleus pulposus cells under an inverted microscope (× 200). B, Immunohistochemistry analysis of type I collagenase, type II collagenase and MMP2 proteins in nucleus pulposus cells (× 200).
Supplementary Figure 2 Inhibition of miR-199a-5p reduces apoptosis of human nucleus pulposus cells via the SIRT1/p21 axis. A, miR-199a-5p expression detected by RT-qPCR in human nucleus pulposus cells transfected with miR-199a-5p mimic or in combination with oe-SIRT1. B, Cell apoptosis detected by flow cytometry upon transfection with miR-199a-5p mimic or in combination with oe-SIRT1. C, Cell proliferation detected by CCK-8 upon transfection with miR-199a-5p mimic or in combination with oe-SIRT1. D, miR-199a-5p and p21 expression detected by RT-qPCR in nucleus pulposus cells transfected with miR-199a-5p inhibitor or in combination with oe-p21. E, Cell apoptosis detected by flow cytometry upon transfection with miR-199a-5p inhibitor or in combination with oe-p21. F, Cell proliferation detected by CCK-8 upon transfection with miR-199a-5p inhibitor or in combination with oe-p21. Data were shown as mean ± standard deviation of three technical replicates. Data among multiple groups were assessed by analyzed by one-way ANOVA with Tukey’s test while those at different time points were analyzed by two-way
ANOVA. The number of samples examined was 3 parallel samples. * indicates $p < 0.05$ with statistical significance.