**Figure S1:** A: a representative figure of Western blotting. B: cell viability was checked by Annexin V assay by flow cytometry. C: cell cycle was detected by staining followed with flow cytometry analysis.

**Figure S1**

A

![Western blotting images](Image of Western blotting)

- TGF-β: 44kDa
- GADPH: 37kDa
- Smad3: 52kDa
- pSmad3: 55kDa
- GADPH: 37kDa

B

![Flow cytometry images](Image of flow cytometry)

- No treat
- miR-29b control
- miR-29b shRNA

C

![Cell cycle analysis images](Image of cell cycle analysis)

- No treat
- miR-29b control
- miR-29b shRNA

- G1: 75.35 % at 83.25
- G2: 19.37 % at 164.52
- S: 5.38 % G2/G1: 1.98

- G1: 77.08 % at 82.21
- G2: 16.81 % at 161.91
- S: 6.11 % G2/G1: 1.97

- G1: 71.21 % at 82.96
- G2: 20.50 % at 162.08
- S: 8.29 % G2/G1: 1.95

- G1: 83.11 % at 82.53
- G2: 10.22 % at 162.42
- S: 6.67 % G2/G1: 1.97

- G1: 78.67 % at 81.29
- G2: 16.38 % at 158.31
- S: 4.95 % G2/G1: 1.95
**Figure S2**: TUNEL assay was performed to look at the frequency of apoptotic analysis. The apoptotic cells were labelled in red and nucleus was in blue.

Figure S2

| Condition 1 | Condition 2 | Condition 3 |
|-------------|-------------|-------------|
| ![Image](image1.jpg) | ![Image](image2.jpg) | ![Image](image3.jpg) |
| Condition 4 | Condition 5 | Condition 6 |
| ![Image](image4.jpg) | ![Image](image5.jpg) | ![Image](image6.jpg) |

1. control group
2. model group+ no treat
3. model group + miR-29b inhibitor + TSA II (0h)
4. model group + miR-29b inhibitor + TSA II (6h)
5. model group + miR-29b inhibitor + TSA II (24h)
6. model group + miR-29b inhibitor + TSA II (72h)
Figure S3: Analysis of tendon tissue on collagen I, III, and cyclin D protein expression under six different conditions.

Figure S3
**Table S1:** primes used in this study

Primers in this study

| Name         | Primer       | Sequence                                                                 |
|--------------|--------------|--------------------------------------------------------------------------|
| U6           | Forward      | 5’- CGCTTCGGCAGCACATATAC -3’                                              |
|              | Reverse      | 5’- AAATATGGAACGCTTCACGA -3’                                              |
| rno-miR-29b  | Forward      | 5’- TGC GCC TAGCACCATT TTGAATCA -3’                                       |
|              | loop primer  | 5’- GTCGTATCCAGTGCAGGGTGCCGAGG TATTCGCACTGGATACGACACACT GA -3’          |
| Rat GAPDH    | Forward      | 5’- ACAGCAACAGGGTGTTGGAC -3’                                              |
|              | Reverse      | 5’- TTTGAGGGTGCGAGCGA A CTT -3’                                           |
| Rat TGF-β1   | Forward      | 5’- CACTCCCCGTGCGTCTAGTG -3’                                              |
|              | Reverse      | 5’- GGACTGGCGAGCCTAGTTT -3’                                               |
| Rat P21      | Forward      | 5’- A CAGCAAGTTCAAGAGGAGTA -3’                                            |
|              | Reverse      | 5’- CTGAGCCGT TTTTCTG TCT -3’                                             |
| Rat Smad3    | Forward      | 5’- CCTCCAATTCAGAGCGCTTC -3’                                              |
|              | Reverse      | 5’- ATAGC A C T G T C ACTGAGGCA -3’                                       |