

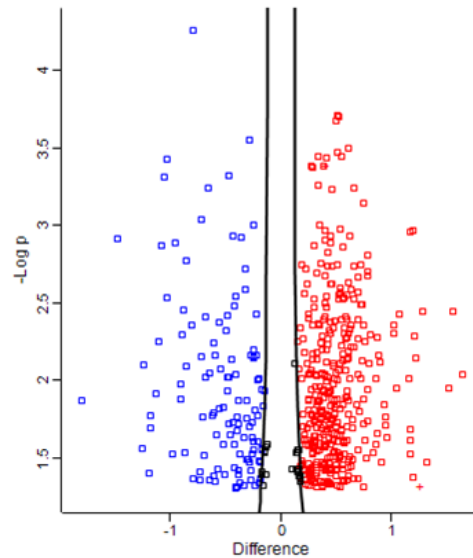
Supplementary Table 1:**siRNAs sequences for MSTN and COL1A1 knockdown**

Fragment name	Sequence (5'-3')
si-bta-MSTN	GCACAAAGACATGTCATGT
si-bta-COL1A1	ACTGGTATATCAGCAAGAA

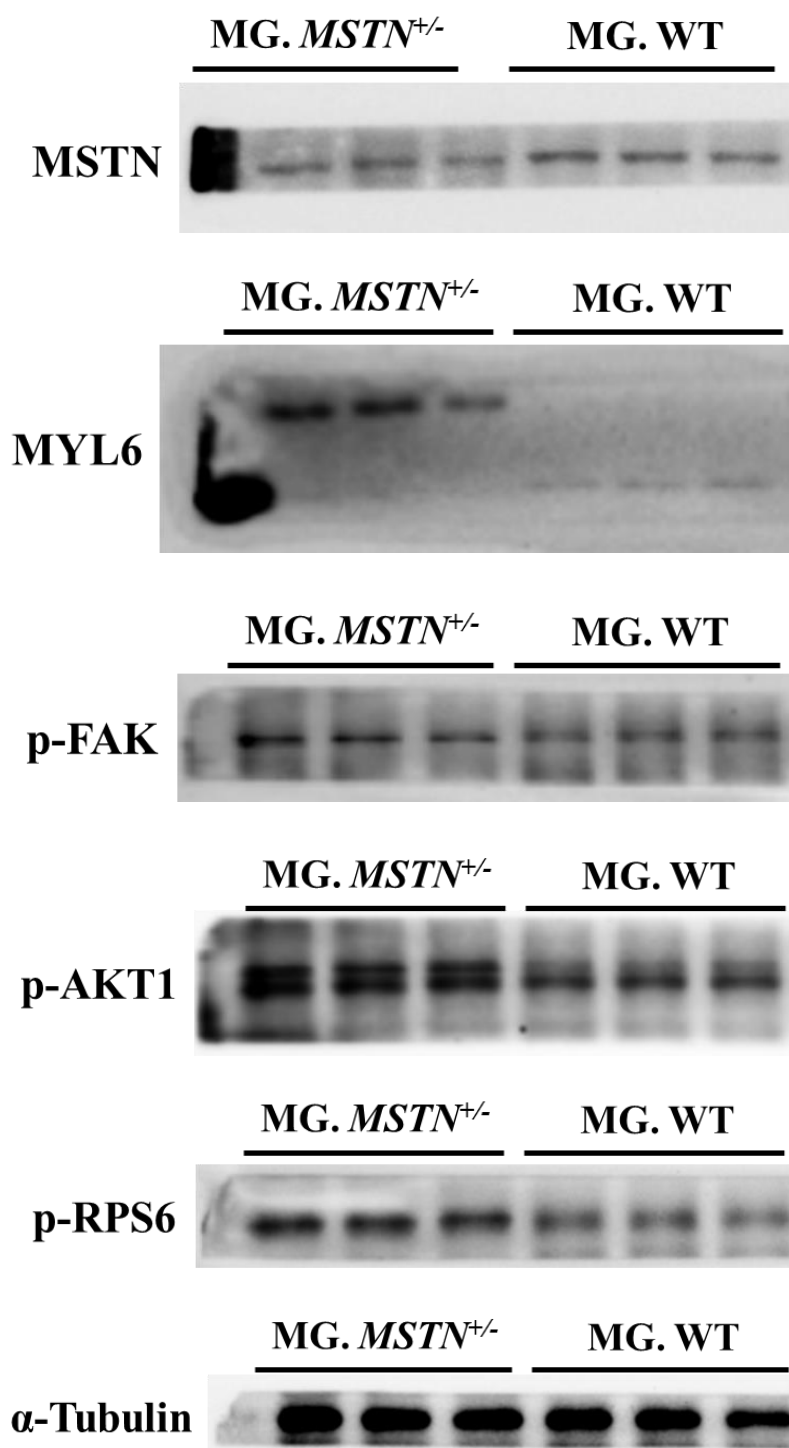
Supplementary Table 2:**Nucleotide sequences of the primers used for real-time quantitative PCR**

Genes	Direction	Primer sequence (5'-3')
MSTN	F	TGTGGAAAAAGAGGGGCTGT
	R	AGCTGTTTCCAGGCGAAGTT
Pax7	F	AGCCAGAGTTTCAACGGGAG
	R	GTCGCCAACAGACAACACAC
MyoD	F	ACGGCATGATGGACTACAGC
	R	AGGCAGTCGAGGCTCGACA
MyoG	F	GGCTGACAAATGCCAGACTATCC
	R	TGGTCCCTTGCTTTATCTCCCT
MyHC	F	CTGGAATCCGGAGGCAGAA
	R	TTTTCGAAGGTAGGGAGCGG
COL1A1	F	CGGCTACGACTTGAGCTTCCTG
	R	GTCACGGACCACATTGGCATCA
COL6A3	F	TTCCTCTTGGAGCATTGGCA
	R	ATGTGGGTTGCCGTTGAACT
LAMA2	F	AGAAGGCTATGCGTTGGTCAGT
	R	TCAGGTCTCGTGTGGCAAGGTA
Rock1	F	ACCAGGAAGGTGTACGCTATGA
	R	GCTGAACAACCCAAGGACTGT
VASP	F	CCCTGGGAGAAGAACAGCACAA
	R	CGTCACTGGAAGTAGGCGTAGC
FLNB	F	CAAGCCTGCCGAGTTCACCATC
	R	CCATCGCCGTTGTCTGAGCATT
FAK	F	TGGCTGCTGCTTACCTTGACC
	R	AGAACGCTCCACACCAGTCC
Rac1	F	TCCCAACACACCCATCATCCT
	R	GGCGTCAGCTTCTTCTCCTTC
RhoA	F	GATGTCCAACCCACCTGACC
	R	AATTAGCGCCTGGTGTGTCA

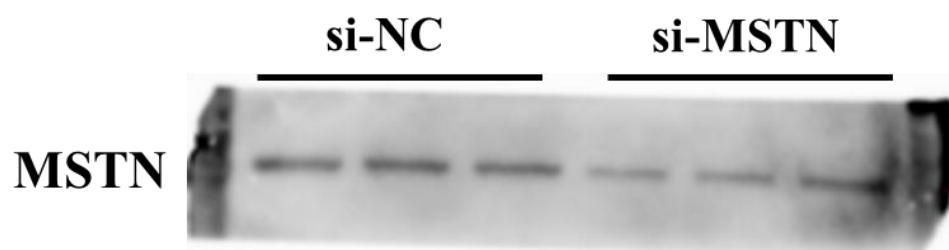
CDC42	F	ACGACCGCTGAGTTATCCACAA
	R	GGGTCCCAACAAGCAAGAAAGG
ACTN4	F	GGAGCGGTTACCTAAGCCAGAG
	R	GCGATGAAGTCCAGTGCCTTGT
MYL6	F	CTATGAAGCGTTTGTGAGGCA
	R	CCTCAGCCATTCAGCACCAT
MYL9	F	CCTGCTCCACATATAACCGT
	R	CTCAGCCCGTTTCCTTCACT
MYL12A	F	AGCCAAACGTTCCCTTGTTGC
	R	AGAGATGCATGTGCCCAAA
RPS6	F	CGAATCAGTGGCGGGAACGATA
	R	ACTCAGTAGCAGGCGAACTCTG
EIF4B	F	TCGTGATGGGTATCGGGACAGT
	R	AGTCTCTGCCACCTCGGTCAT
HSP90B1	F	GAGTCTCCGTGTGCTCTGGTAG
	R	TGTCCTTGCCCTGTCTGGTATGC
PPP2CA	F	GGGTCCAATGTGTGACTTGC
	R	CCTGCCCCAAAGGTGTAACCA
TUBB	F	CAACAGCACAGCCATCCAGGA
	R	TCTCAGCCTCGGTGAACTCCAT

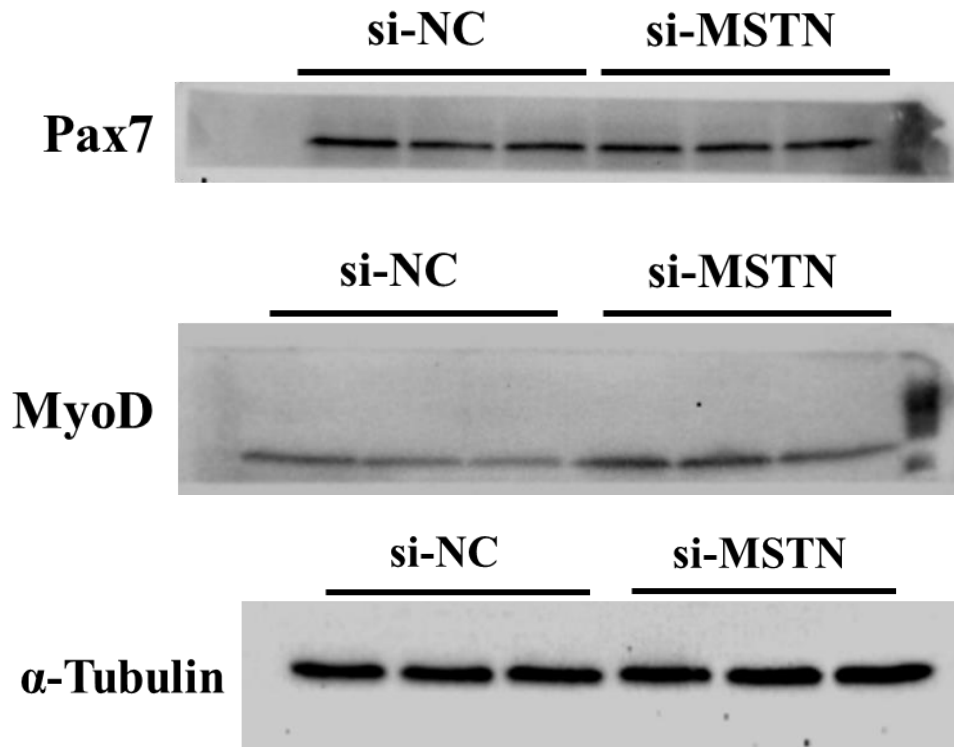


Supplementary Figure 1: Volcanic map of differentially expressed proteins.

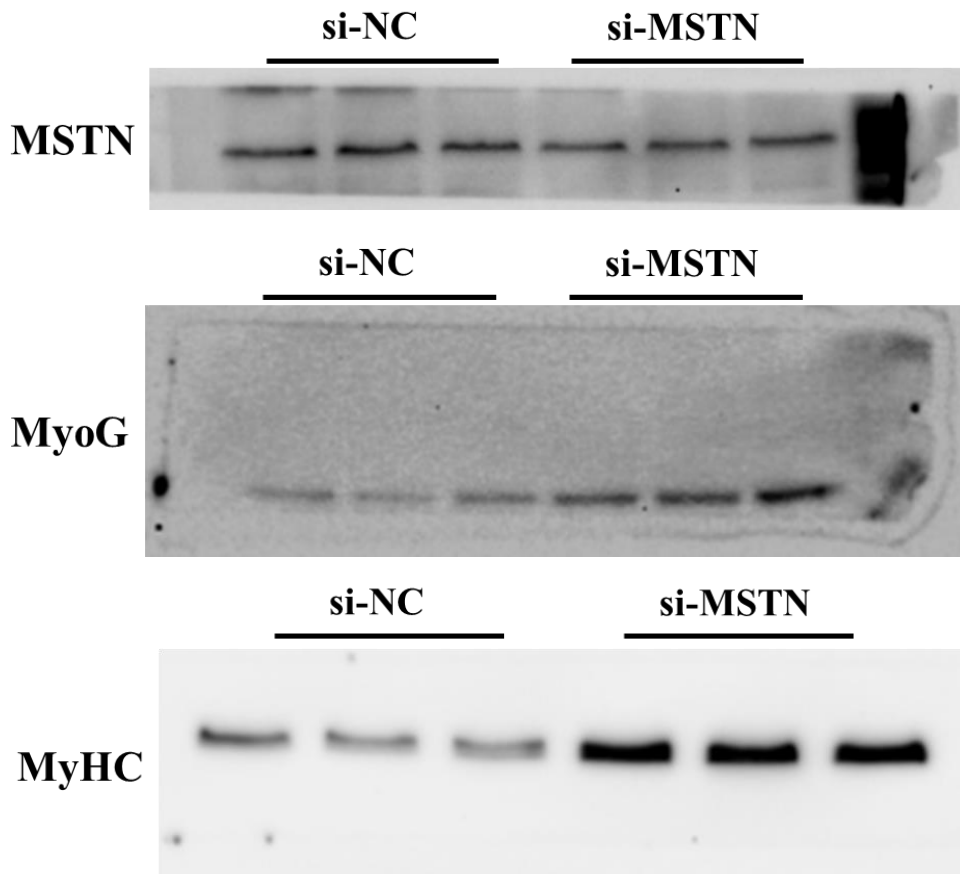


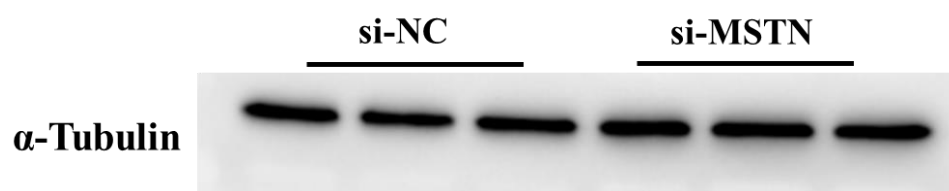
Supplementary Figure 2: Western blot result of MSTN, MYL6, pFAK(Tyr-473), pAKT1(Ser-473) and pRPS6(Ser-235/236) in muscle tissue.



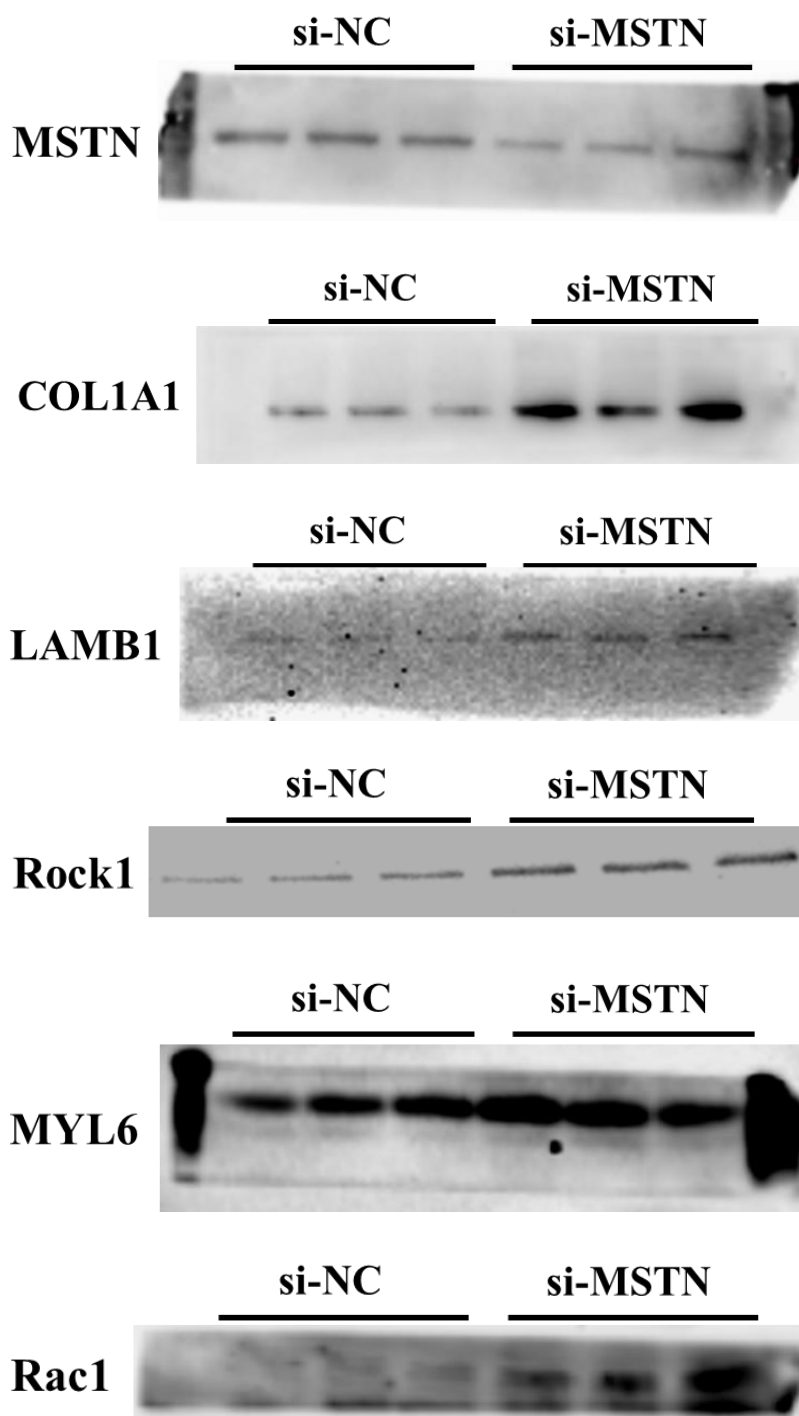


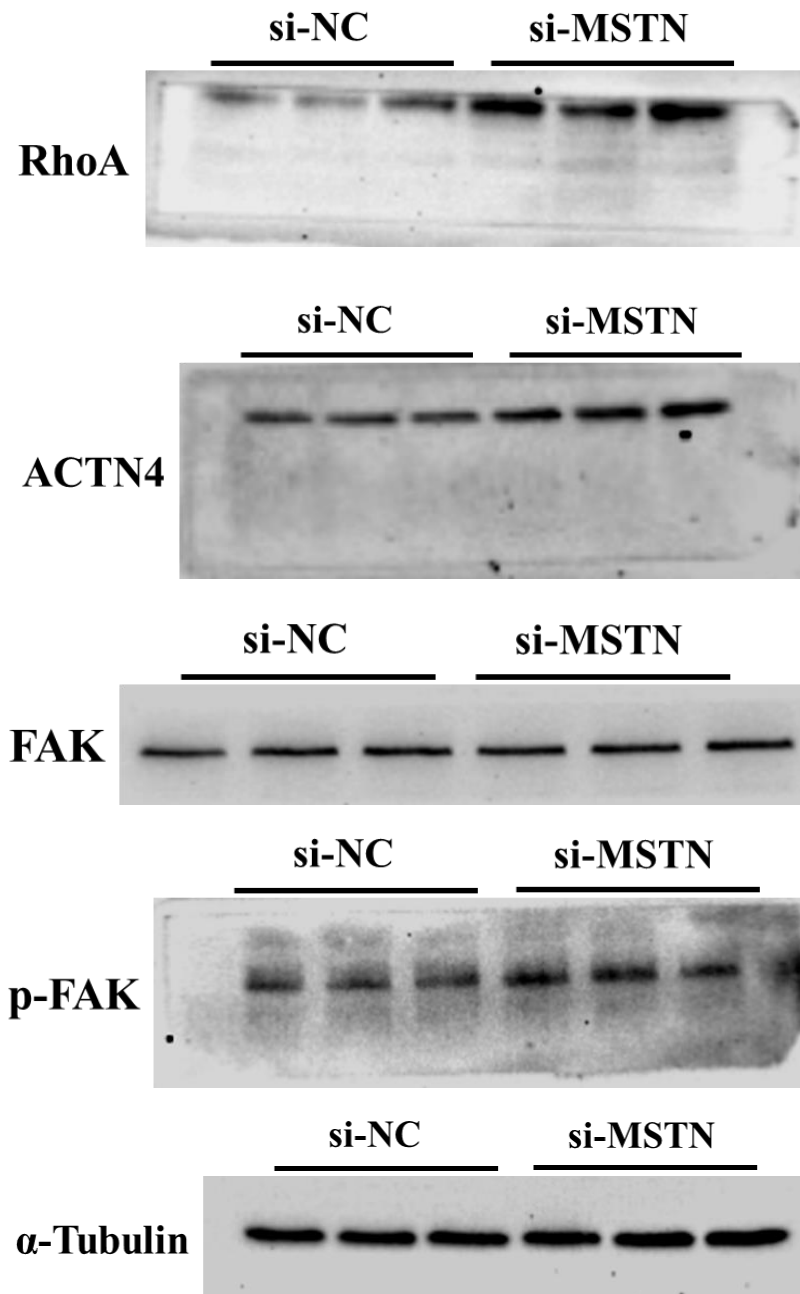
Supplementary Figure 3: Western blot result of MSTN, Pax7 and MyoD proteins in GM bovine skeletal muscle satellite cells.



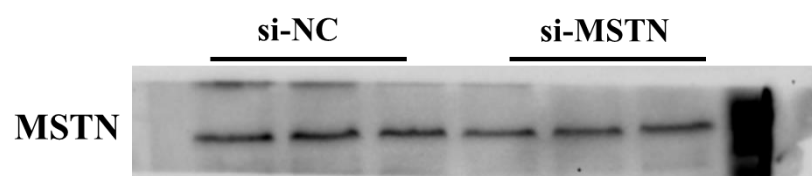


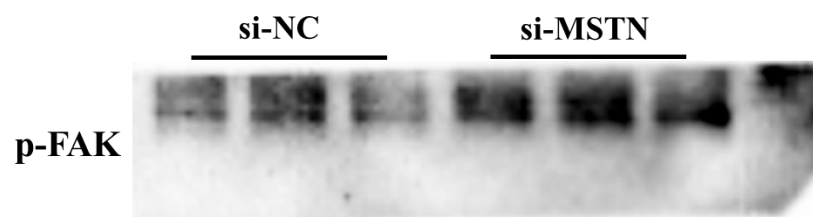
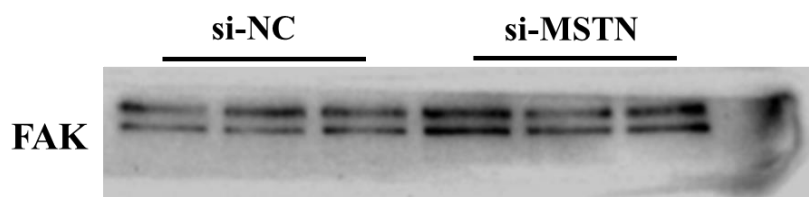
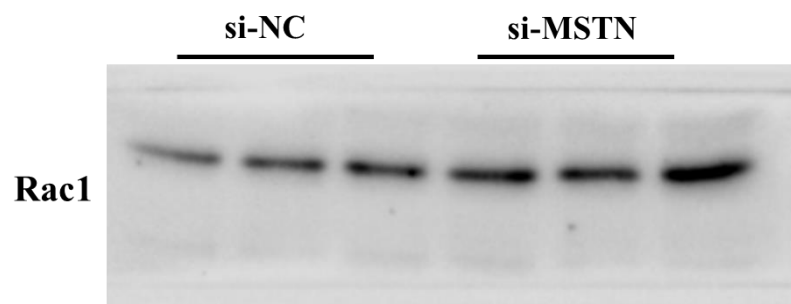
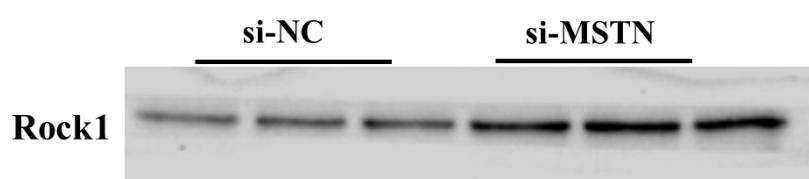
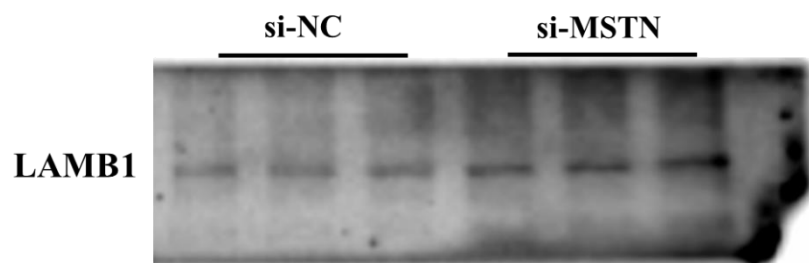
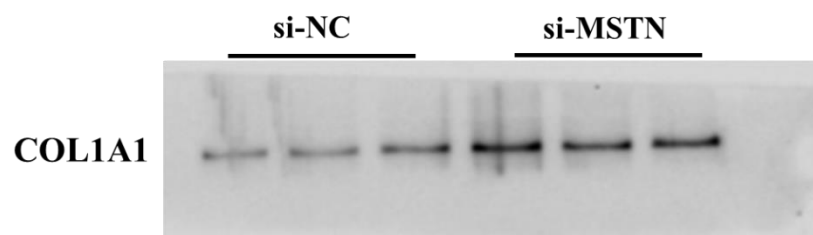
Supplementary Figure 4: Western blot result of MSTN, MyoG and MyHC proteins in DM3 bovine skeletal muscle satellite cells.

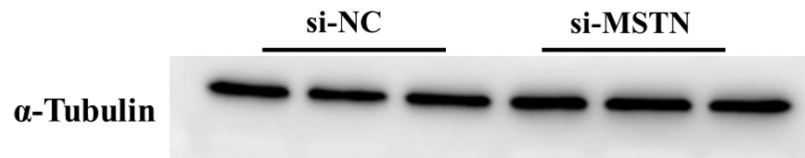




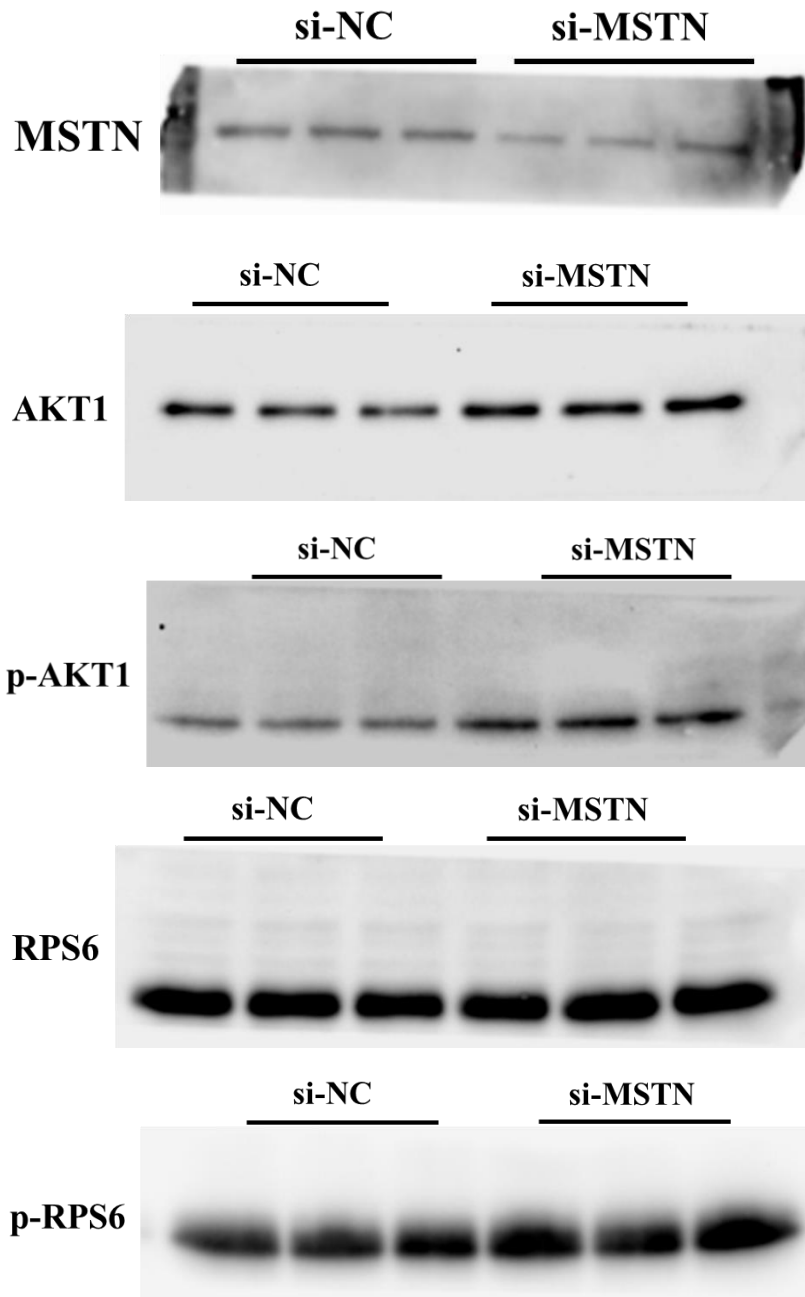
Supplementary Figure 5: Western blot result of MSTN, COL1A1, LAMB1, Rock1, MYL6, Rac1, RhoA, ACTN4, FAK and pFAK (Tyr-473) in GM bovine skeletal muscle satellite cells.

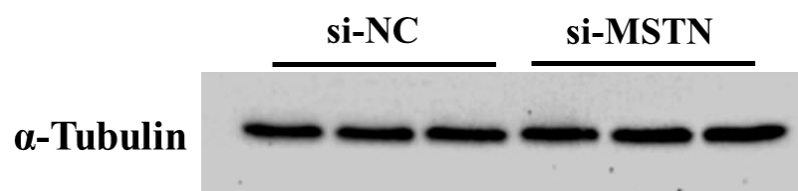




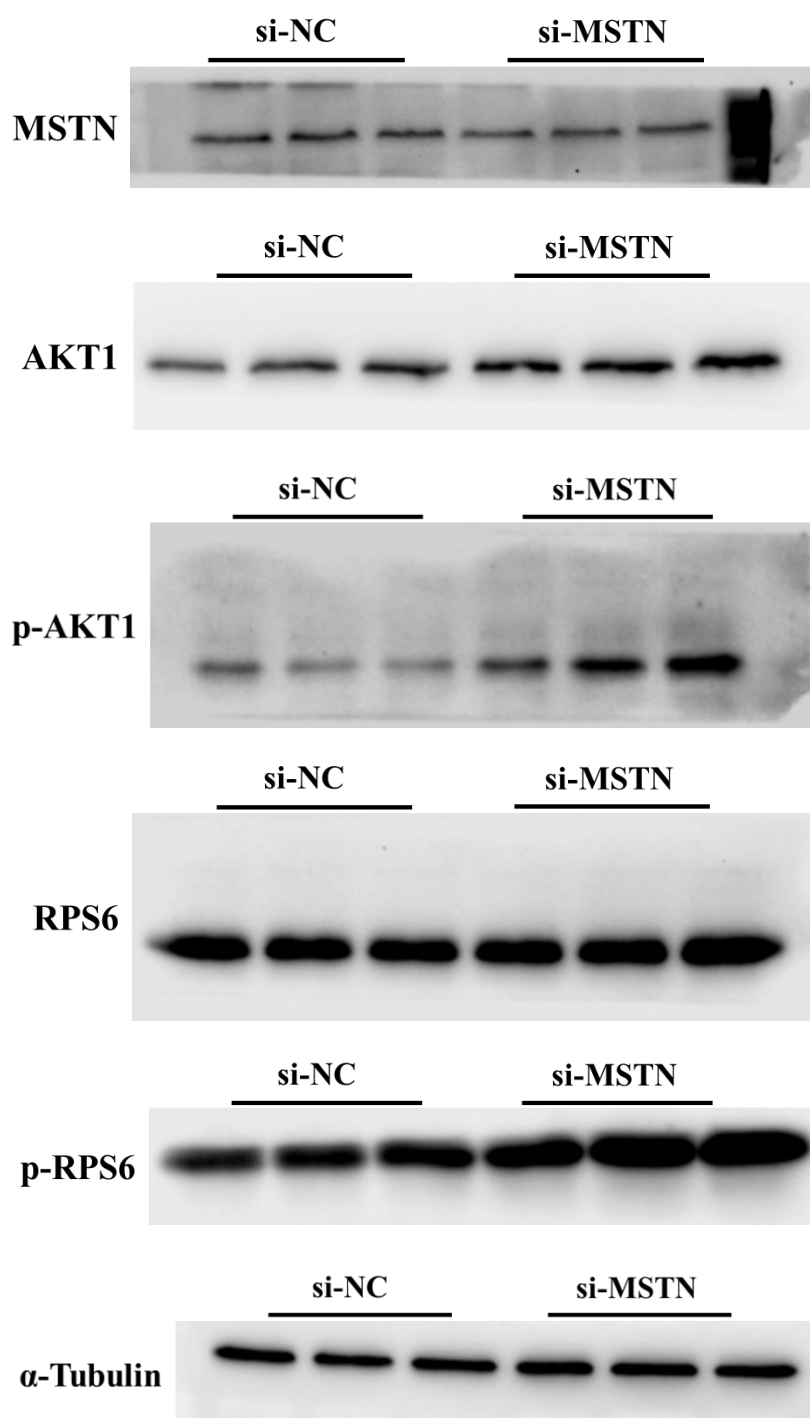


Supplementary Figure 6: Western blot result of MSTN, COL1A1, LAMB1, Rock1, Rac1, ACTN4, FAK and pFAK (Tyr-473) in DM3 bovine skeletal muscle satellite cells.



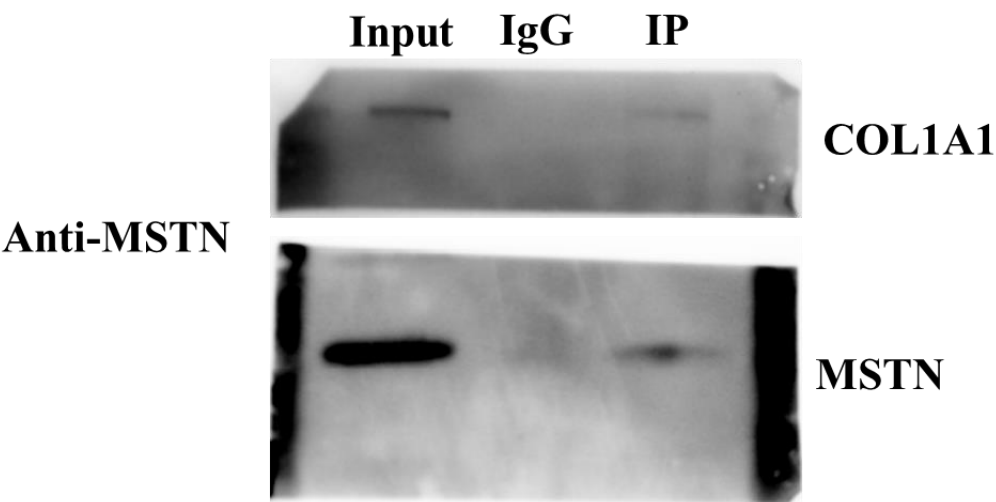


Supplementary Figure 7: Western blot result of MSTN, AKT1, pAKT1 (Ser-473), RPS6 and pRPS6 (Ser-235/236) in GM bovine skeletal muscle satellite cells.

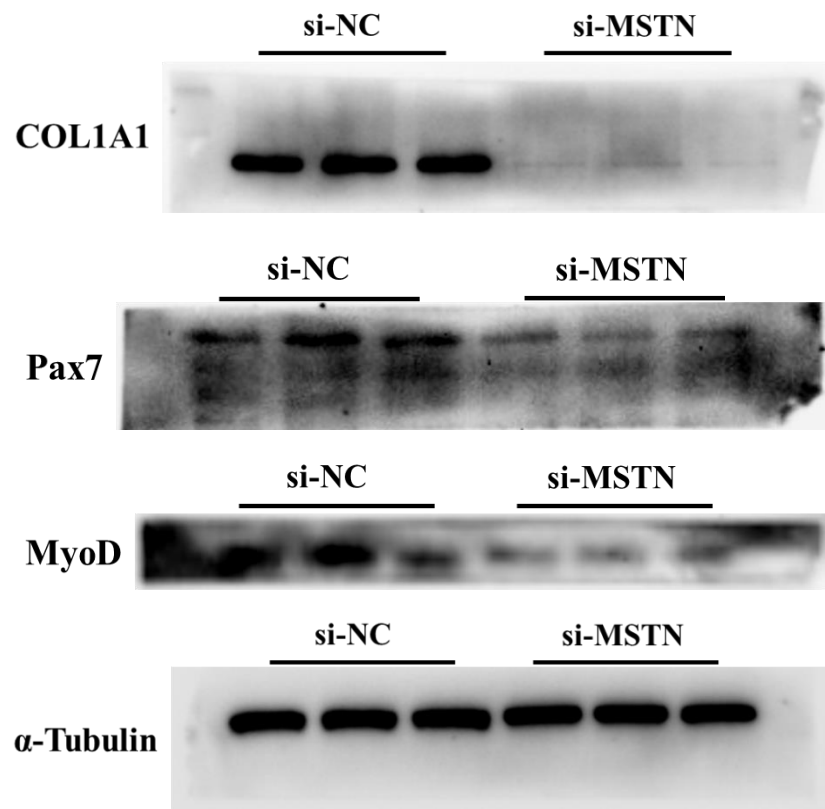


Supplementary Figure 8: Western blot result of MSTN, AKT1, pAKT1 (Ser-473), RPS6 and

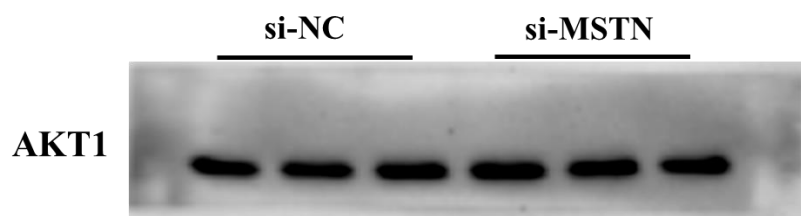
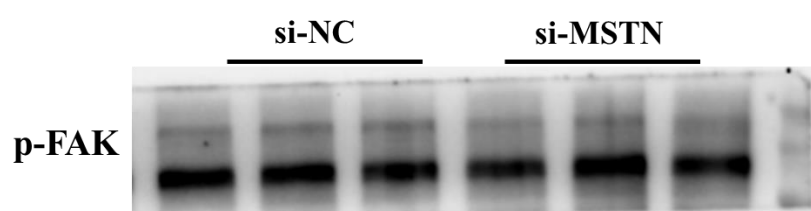
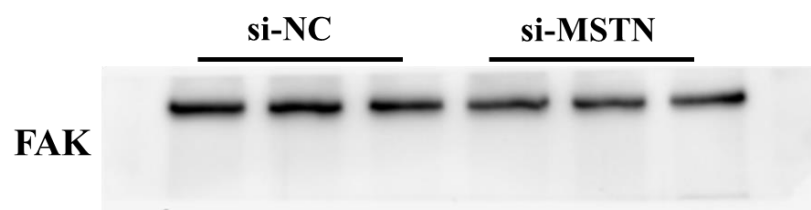
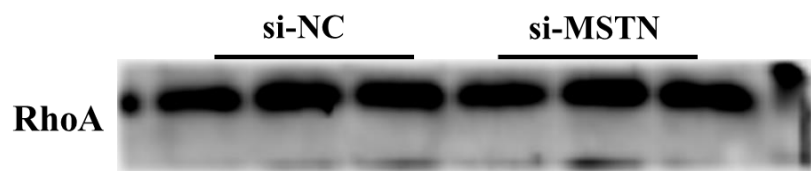
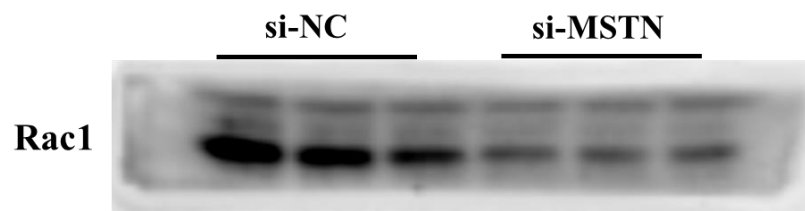
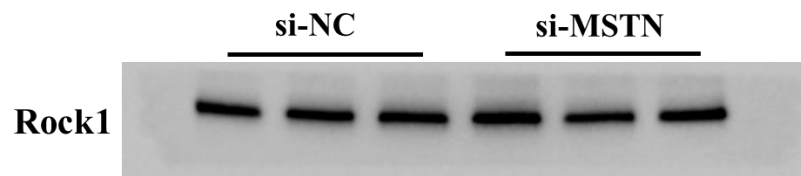
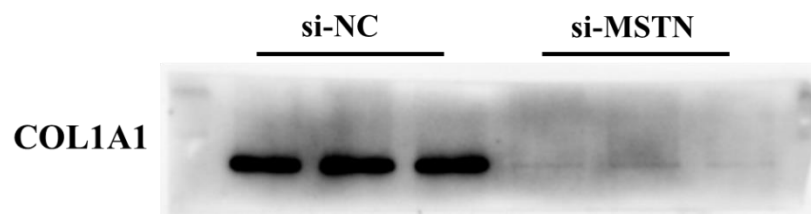
pRPS6 (Ser-235/236) in DM3 bovine skeletal muscle satellite cells.

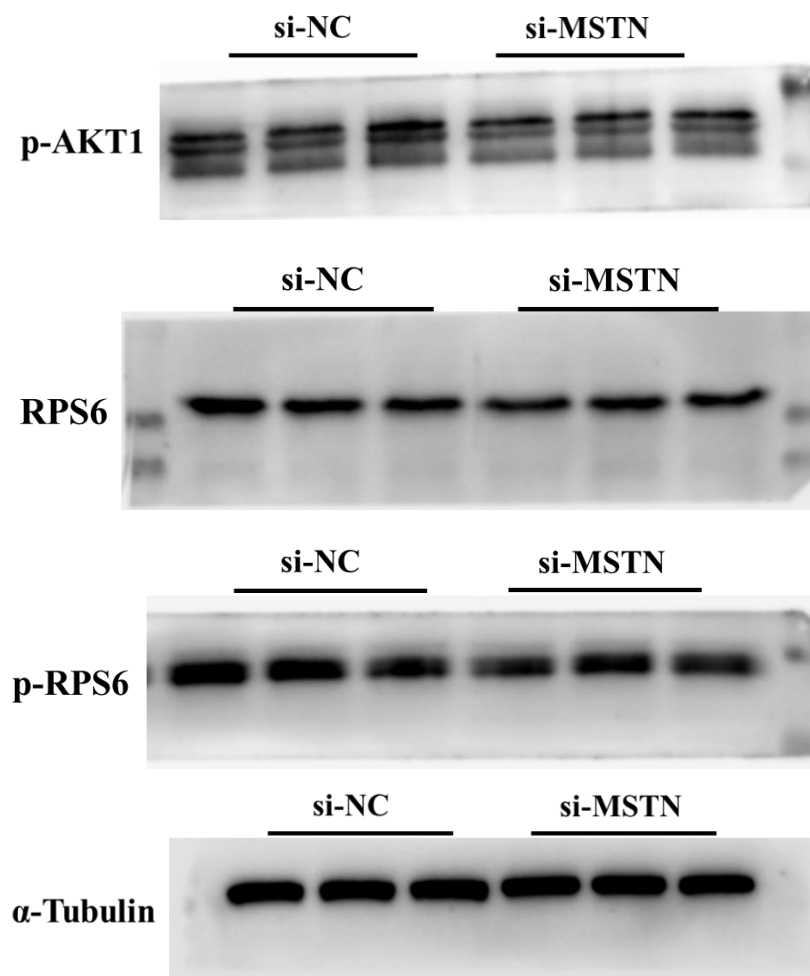


Supplementary Figure 9: CO-IP result of MSTN and COL1A1 proteins.



Supplementary Figure 10: Western blot result of COL1A1, Pax7 and MyoD proteins.





Supplementary Figure 11: Western blot result of COL1A1, Rock1, Rac1, RhoA, FAK, pFAK(Tyr-473), AKT1, pAKT1(Ser-473), RPS6 and pRPS6(Ser-235/236).