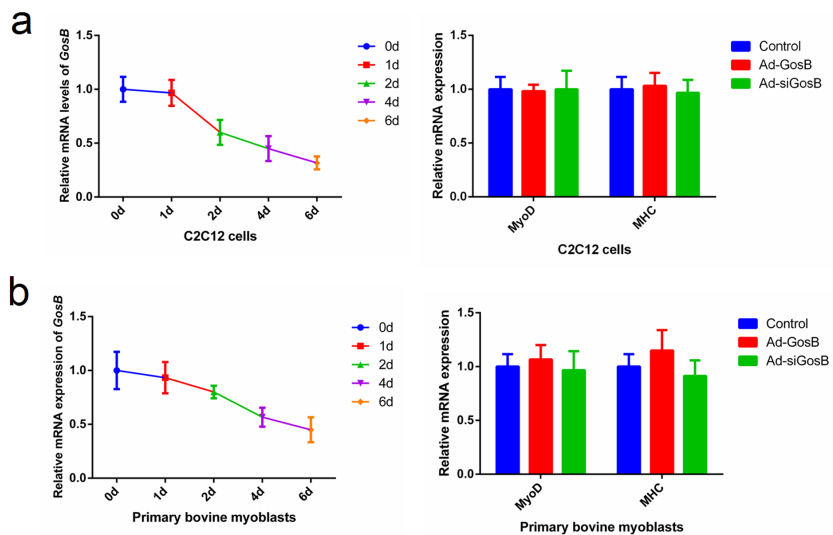
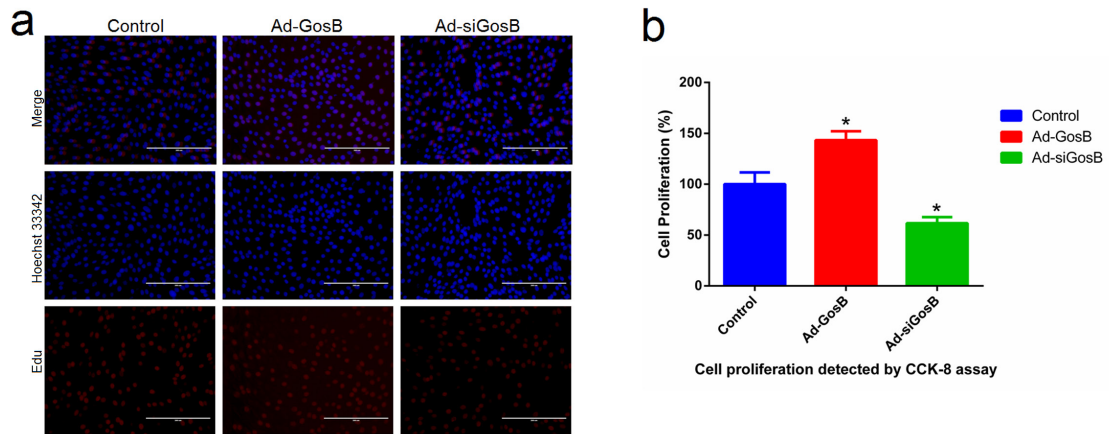


# Developmental transcriptome profiling of bovine muscle tissue reveals an abundant GosB that regulates myoblast proliferation and apoptosis

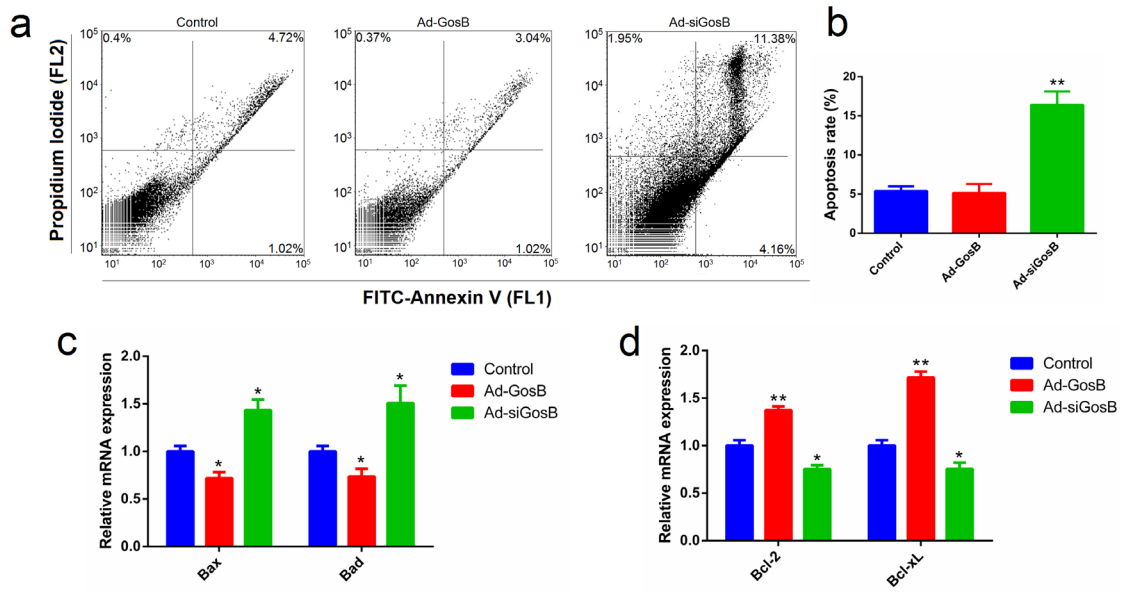
## SUPPLEMENTARY FIGURES AND TABLES



Supplementary Figure 1: GosB in myoblasts differentiation.



Supplementary Figure 2: Effects of GosB on primary bovine myoblasts proliferation.



Supplementary Figure 3: Effects of GosB on cell apoptosis in primary bovine myoblasts.

Supplementary Table 1: Primers designed for quantitative real time PCR (qPCR)

Gene	Primer sequence <sup>1</sup> (5'-3')	Product length (bp)	Efficiency <sup>2</sup>
<i>GosB</i>	F: ACCCACCCTCATCTCTTCCAT	130	2.14
	R: GCCACTGCTGTAGCCACTCA		
<i>GAPDH</i> <sup>3</sup>	F: GCAAGTTCCACGGCACAG	249	2.16
	R: GGTTCACACCAATCACAA		
<i>GAPDH</i> <sup>4</sup>	F: AGGACACTTGTCATCTCATTTC	169	2.18
	R: TTGGAGTCAGGTTCTCTCTTGTA		
<i>MYOG</i>	F: CAAATCCACTCCCTGAAA	93	2.13
	R: GCATAGGAAGAGATGAACA		
<i>MYOD</i> <sup>3</sup>	F: GGAAGGGAAGAGCAGAAG	82	1.98
	R: AAGGACTACAACAACAACAAC		
<i>MYOD</i> <sup>4</sup>	F: CCGCTCCGCGACGTAGACTTGA	92	2.03
	R: GAGTCGAAACACGGGTCATCATA		
<i>MHC</i> <sup>3</sup>	F: CAATAAACTGCGGGCAAAGAC	75	2.01
	R: CTTGCTCACTCCTCGCTTTCA		
<i>MHC</i> <sup>4</sup>	F: TGCTCATCTCACCAAGTTCC	150	1.99
	R: CACTCTTCACTCTCATGGACC		
<i>IGFBP3</i>	F: GCGCCCTTACCTGCTACCGT	175	2.16
	R: GCTGTCCTTGGCATGACCTTTCT		
<i>P53</i>	F: TGAACCGCCGACCTATCC	95	2.1
	R: GCAGGCACAAACACGAACC		
<i>Bcl-xL</i>	F: TCGGGATGGAGTAAACTGGG	65	2.2
	R: CCACGCACAGTGCCCC		
<i>Bad</i>	F: GCAGCCACCAACAGTCATCAT	202	1.87
	R: CAAACTCATCGCTCATCCTTCG		
<i>cyclinD1</i>	F: TCTACACTGACAACTCTATCCG	304	1.76
	R: TAGCAGGAGAGGAAGTTGTTGG		
<i>Caspase-3</i>	F: TGTCATCTCGCTCTGGTACG	201	2.02
	R: AAATGACCCCTTCATCACCA		
<i>Bcl-2</i>	F: GGTGGTGGAGGAACTCTTCA	160	2.23
	R: CAGATGCCGTTTCAGGTACT		
<i>Bax</i>	F: GAAGCTGAGCGAGTGTCTCC	229	1.98
	R: GATCAGCTCGGGCACTTTAG		

<sup>1</sup>F = forward primer; R = reverse primer.

<sup>2</sup>The PCR efficiency was determined by  $[10^{(-1/\text{slope})}]$ ; the slope was obtained by the 7-point standard curve (with a minimum  $R^2$  of 0.99).

<sup>3</sup> Primers for real-time PCR of mouse.

<sup>4</sup> Primers for real-time PCR of cattle.

**Supplementary Table 2: List of differentially expressed genes identified in bovine skeletal muscle at two developmental stages**

See Supplementary File 1

**Supplementary Table 3: 157 terms that were found to be significantly enriched in the category ‘molecular function’ according to Gene Ontology analysis**

See Supplementary File 2

**Supplementary Table 4: 153 terms that were significantly enriched in the category ‘cellular component’ according to Gene Ontology analysis**

See Supplementary File 3

**Supplementary Table 5: 287 terms that were significantly enriched in the category ‘biological processes’ according to Gene Ontology analysis**

See Supplementary File 4

**Supplementary Table 6: 46 genes related to muscle cell proliferation and differentiation that were significantly differentially expressed in two developmental stages of bovine muscle tissue**

See Supplementary File 5