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Expression Profiles of MicroRNAs from Multiple Lumbar Spine in Sheep

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Summary

The formation of the spine is a critical stage of mammalian development. The increase of the number of individual axons affects its performance, especially in meat production. To understand the role of miRNAs in sheep vertebrae development, the purpose of this article is to screen candidate microRNAs (miRNAs) associated with sheep spine development. MicroRNAs (miRNAs) are a rich family of small regulatory RNAs that negatively regulate gene expression at the post-transcriptional level. In this study, we used high-throughput sequencing techniques to analyze the microRNAs (miRNAs) expression profiles of L6（6 lumbar vertebrae）and L7（7 lumbar vertebrae）in sheep. A total number of 223 miRNAs were detected in the two libraries, and a total of 150 and 148 conserved miRNAs were obtained in L6 and L7, respectively. A total of 5 miRNAs expression differences in L6 compared to L7 (P<0.05). Of the five obviously differently expressed miRNAs, four miRNAs were down-regulated in the L6 of sheep, and one was up-regulated. In order to further