

A novel pig gene, FASTK, differentially expressed in the muscle tissues from Wujin and Large White pigs

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Abstract :

The mRNA differential display technique was used to investigate gene expression differences in the longissimus dorsi muscle from Wujin and Large White pigs. A fragment of one differentially expressed gene was isolated and sequenced. A complete cDNA sequence of the gene was obtained using the rapid amplification of cDNA ends (RACE) method. The open reading frame of this gene encodes a protein of 542 amino acids, which is homologous with the Fas-activated serine/threonine kinase (FASTK) of seven species: cattle 92%, sumatran orangutan (91%), chimpanzee (90%), rhesus (85%), dog (92%), mouse (87%) and human (91%). This newly identified gene was respectively defined as the swine FASTK gene and has been assigned GeneID: 100233181. The phylogenetic tree analysis revealed that the porcine FASTK has a closer genetic relationship with the FASTK of cattle. The tissue expression analysis indicated that the FASTK gene is differentially expressed in various porcine tissues. The presented investigation is the first to establish the primary foundation for further research on the swine FASTK gene.

Key Word :

FASTK, mRNA differential display, muscle tissue,pig

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