Effects of Kruppel-like factor 15 on fat deposition and muscle fiber type and its possible mechanisms: postprint

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Abstract

Kruppel-like factor 15 (KLF15) is a newly discovered member of the Kruppel-like factor family (KLFs), functioning as a eukaryotic zinc finger protein transcription factor. KLF15 exhibits multi-tissue expression characteristics in animals; overexpression of this gene can promote animal fat deposition and influence the expression of candidate genes for meat quality traits and type I muscle fiber genes. Therefore, in-depth investigation into the effects of KLF15 on fat deposition and muscle fiber types, as well as its potential mechanisms, will provide novel insights for improving animal meat quality. This article reviews the discovery, structural characteristics, expression patterns of KLF15, and its relationship with fat deposition and type I muscle fibers.

Full Text

Effects of Kruppel-like Factor 15 on Fat Deposition and Muscle Fiber Types and Its Possible Mechanism

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Kruppel-like factor 15 (KLF15) is a recently discovered member of the Kruppel-like factors (KLFs) family that functions as a eukaryotic zinc finger protein

transcription factor. KLF15 exhibits multi-tissue expression patterns in animals, and its overexpression can promote fat deposition while influencing the expression of candidate genes for meat quality traits and type I muscle fiber genes. Therefore, in-depth investigation of KLF15' s effects on fat deposition and muscle fiber types and

Note: Figure translations are in progress. See original paper for figures.