

文章摘要

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大黄鱼Myostatin-1基因启动子克隆及生物信息学分析

Cloning and bioinformatic analysis of myostatin-1 gene promoter in *Larimichthys crocea*

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英文关键词: [Larimichthys crocea](#) [Myostatin-1 promoter](#) [Cloning](#) [Bioinformatic analysis](#)

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中文摘要:

Myostatin基因属于TGF β 超家族,是动物骨骼肌生长发育的负调控因子。在已克隆大黄鱼Myostatin-1基因编码序列的基础上,采用基因组步移的方法,首次克隆到约1kbp的大黄鱼Myostatin-1启动子序列。该启动子序列与已报道的金鲷和大口黑鲈相应序列的相似度分别为90%和75%。该序列具有1个TATA box、1个CAAT box、5个E-box位点,此外还具有MyoD, USF, MEF2, SP1, NF- κ B等多种转录因子结合位点

英文摘要:

Myostatin is a member of the transforming growth factor- β superfamily, which functions as a negative regulator for the development and growth of skeletal muscle in animal. Based on the cloned myostatin-1 gene of *Larimichthys crocea*, the promoter sequence of *L. crocea* myostatin1 gene was cloned by genomic walking. The sequencing results indicate that it shares 90% and 75% homology identity with the corresponding reported sequences of *Sparus aurata* and *Micropterus almoides*, respectively. Bioinformatic analysis showed that myostatin-1 gene contains one consensus sequences of TATA box, a CAAT box and five putative E-boxes known as the binding sites to myogenic basic helix-loop helix transcription factors. In addition, it also possesses many transcription factor binding sites, such as MyoD, USF, MEF2, SP1 and NF- κ B. These results are expected to be the basis for further studies on the regulation and expression of this gene. KEY WORDS *Larimichthys crocea* Myostatin-1 promoter Cloning Bioinformatic analysis

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