

研究简报

马来丝虫肌球蛋白部分编码基因 *Bm-M55* 的克隆与真核表达

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摘要

根据马来丝虫肌球蛋白部分编码基因 (*Bm-M55*) 序列设计引物, 以其微丝蚴总RNA为模板, 反转录PCR扩增目的基因。用TA克隆方法将目的基因克隆至载体pGEM[®] Easy中, 经PCR和双酶切鉴定并测序后, 亚克隆至真核表达质粒pcDNA3.1 (+), 构建真核表达载体pcDNA3.1 (+) /*Bm-M55*, 转染COS-7细胞后进行RT-PCR验证。用十二烷基硫酸钠-聚丙烯酰胺电泳 (SDS-PAGE) 对获得重组蛋白*Bm-M55*进行分析 and 鉴定。RT-PCR鉴定结果显示, 转染的COS-7细胞表达了*Bm-M55*基因, 根据克隆的目的基因序列推导的氨基酸序列与GenBank (登录号为AAA27858) 中的一致, 重组蛋白*Bm-M55* 相对分子质量 (*M_r*) 约为 55 000。

关键词 [马来丝虫](#) [肌球蛋白](#) [真核表达载体](#) [COS-7 细胞](#)

分类号

Cloning and Eukaryotic Expression of the Gene Encoding Myosin from *Brugia malayi*

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Abstract

Total RNA was extracted from periodic microfilariae of *Brugia malayi* and its myosin partial gene (*Bm-M55*) was amplified by RT-PCR. The PCR product was cloned and then subcloned into pcDNA3.1 (+) vector. The recombinant eukaryotic plasmids were screened and identified by digestion with restriction enzyme and PCR amplification, and was transfected into COS-7 cells subsequently. The expressed protein was identified by SDS-PAGE. *Bm-M55* mRNA was highly expressed in transfected COS-7 cells. The deduced amino acid sequence showed to be identical with that of *Bm-M55*, and the recombinant protein was about *M_r* 55 000.

Key words [Brugia malayi](#) [Myosin](#) [Eukaryotic expressing vector](#) [COS-7 cell](#)

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