

水稻胞质核糖体蛋白基因OsRPS7的克隆与序列分析Molecular Cloning and Sequece Analyzing of Cytoplasmic Ribosomal Protein Gene OsRPS7 From Rice (Oryza sativa)

顾志敏, 王建飞, 黄 骥, 张红生GU Zhi-Min, WANG Jian-Fei, HUANG Ji, ZHANG Hong-Sheng
南京农业大学 作物遗传与种质创新国家重点实验室, 江苏 南京210095 National Key Laboratory of Crop Genetics and Germplasm Enhancement, Nanjing Agricultural University, Nanjing 210095, China
收稿日期 修回日期 网络版发布日期 2006-5-26 接受日期

摘要 以已公布的黑麦胞质核糖体蛋白基因ScRPS7的cDNA序列为信息探针, 在中国华大水稻基因组数据库中搜索与之高度同源的基因组重叠群。采用计算机拼接和RT-PCR方法克隆了水稻胞质核糖体蛋白基因的全长cDNA序列, 命名为OsRPS7。该cDNA序列全长919bp, 编码192个氨基酸; 其与黑麦、拟南芥和芸薹的S7核糖体蛋白的氨基酸一致率分别为88%、72%和72%。对OsRPS7 的基因组结构和基因的功能进行了分析和预测。Abstract: Using the cDNA of rye cytoplasmic ribosomal protein ScRPS7 as a query probe, a highly homologous rice genomic contig was obtained from Huada rice genome database. The full-length cDNA sequence of rice cytoplasmic ribosomal protein S7 was assembled by informatics based on the contig. Furthermore, with the two primers designed according to this assembled cDNA, the full-length cDNA of rice ribosomal protein was cloned by RT-PCR and named as OsRPS7. The cDNA was 919bp in length and contained a complete Open Reading Frame (ORF) of 576bp, encoding a protein of 192 amino acid residues. The deduced amino acids of OsRPS7 showed 88%、72% and 72% identity with those from Secale cereale, Arabidopsis thaliana and Brassica oleracea, respectively. The genome structure of OsRPS7 was analyzed, and its function was predicted in this paper.

关键词 [水稻](#) [核糖体蛋白S7](#) [基因克隆](#) [基因结构](#)Key words [rice](#) [ribosomal protein S7](#) [gene cloning](#) [gene structure](#)

分类号

扩展功能

本文信息

- ▶ [Supporting info](#)
- ▶ [PDF\(0KB\)](#)
- ▶ [\[HTML全文\]\(0KB\)](#)
- ▶ [参考文献](#)

服务与反馈

- ▶ [把本文推荐给朋友](#)
- ▶ [加入我的书架](#)
- ▶ [加入引用管理器](#)
- ▶ [复制索引](#)
- ▶ [Email Alert](#)
- ▶ [文章反馈](#)
- ▶ [浏览反馈信息](#)

相关信息

- ▶ [本刊中 包含“水稻”的 相关文章](#)
- ▶ 本文作者相关文章

- [顾志敏](#)
- [王建飞](#)
- [黄 骥](#)
- [张红生GU Zhi-Min](#)
- [WANG Jian-Fei](#)
- [HUANG Ji](#)
- [ZHANG Hong-Sheng](#)

Abstract

Key words

DOI:

通讯作者