Nucleotide sequence of rice waxy gene

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Rice waxy gene codes for the starch granule-bound starch synthase (EC 2.4.1.11) (1). To characterize its molecular structure, a rice (*Oryza sativa* subsp. japonica Hengfeng cultivar) genomic library was constructed in λEMBL-3 vector. Two overlapping genomic clones containing waxy gene sequence were screened and identified from this library by using maize waxy gene DNA as probe (kindly provided by Dr N.Fedoroff). The nucleotide sequences of rice waxy gene and its 5′ and 3′ flanking regions (5499 bp) are presented here. Alignment of nucleotide sequence of waxy gene from rice with that of maize (2) and barley (3) revealed the presence of 13 introns and 14 exons. The full-length of waxy preprotein is 609 amino acid residues.

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TAAAATGTGACGGAGGGAGTGGATACGAAGGAACTAGGT
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Figure. Complete nucleotide sequence of rice Wx gene. The intervening sequences are given in small letters. The translation start and stop codons, potential polyadenylation signals as well as putative TATA box, Agga box and enhancer-like sequence are indicated by underline.