Title (en)

MEANS FOR IDENTIFYING THE LOCUS OF A MAJOR RESISTANCE GENE WITH RESPECT TO THE VIRUS OF THE RICE YELLOW MOTTLE VIRUS AND USES THEREOF

Title (de)

MITTEL ZUR IDENTIFIZIERUNG DES GENORTES EINES FUR DIE RESISTENZ GEGENÜBER DEM RICE YELLOW MOTTLE VIRUS WICHTIGEN GENES UND DEREN ANWENDUNG

Title (fr)

MOYENS POUR L'IDENTIFICATION DU LOCUS D'UN GENE MAJEUR DE LA RESISTANCE AU VIRUS DE LA PANACHURE JAUNE DU RIZ ET LEURS APPLICATIONS

Publication

EP 1185707 A1 20020313 (FR)

Application

EP 00949554 A 20000621

Priority

- FR 0001724 W 20000621
- FR 9907834 A 19990621

Abstract (en)

[origin: FR2795094A1] Identifying markers of the locus of a major resistance gene to rice yellow mottle virus (RYMV). Identifying markers of the locus of a major resistance gene to rice yellow mottle virus (RYMV) comprises: (1) selective amplification of rice DNA fragments from both resistant and sensitive plants, derived from the same parents (the fragments having previously been subjected to digestion and attachment of adaptors that are complementary to primers having, at their ends, one or more specific nucleotides (one of the primers is labeled to allow detection); (2) separation of amplicons by electrophoresis on a denaturing gel; and (3) comparison of electrophoretic profiles from sensitive and resistant plants with those from their parents so as to identify bands for which polymorphism is linked to the locus of resistance (optionally this identification is followed with a verification of each individual plant and calculation of the level of genetic recombination between the marker and the locus). Independent claims are also included for the following: (a) a method for producing highly specific markers for the resistance locus; (b) amplification fragment length polymorphism (AFLP) bands identified by the new method from rice DNA; (c) DNA sequences corresponding to the polymorphic bands of (b) that allow identification of a 10-15 cM segment of chromosome 4, containing the locus of resistance to RYMV; (d) cloning vectors containing specific DNA sequences; (e) host cells transformed with the vector of (d); and (f) fragments of 4-5 cM from rice chromosome 4 or the AFLP bands of (b), defining a segment of 4-5 cM or less, that carry the locus of resistance to RYMV.

IPC 1-7

C12Q 1/68; C12N 5/10; C12N 15/70

IPC 8 full level

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CPC (source: EP US)

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