

Title (en)

NOVEL CLASS OF PROTEINS AND USES THEREOF FOR PLANT RESISTANCE TO VARIOUS PATHOGENIC AGENTS

Title (de)

NEUARTIGE KLASSE VON PROTEINEN UND IHRE ANWENDUNGEN IN BEZUG AUF DIE RESISTENZ VON PFLANZEN GEGENÜBER VERSCHIEDENEN SCHÄDLINGEN

Title (fr)

NOUVELLE CLASSE DE PROTEINES ET LEURS APPLICATIONS A LA RESISTANCE DE PLANTES A DIVERS AGENTS PATHOGENES

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Application

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Abstract (en)

[origin: FR2799204A1] Nucleic acid (I) comprising at least 15 consecutive nucleotides (nt) from a sequence (II) that encodes a pathogen-resistance protein (III) of a plant, or its complement, is new. (III) contains an N-terminal region containing at least one Leu-rich sequence and at least one nt-binding site. Nucleic acid (I) comprising at least 15 consecutive nucleotides (nt) from a sequence (II) that encodes a pathogen-resistance protein (III) of a plant, or its complement, is new. (III) contains an N-terminal region containing at least one Leu-rich sequence and at least one nt-binding site, and a C-terminal region with a DNA-binding domain containing the sequence TrpArgLysTyrGlyGlnLys. Independent claims are also included for the following: (1) nucleic acid (Ia) that hybridizes to (I) under highly stringent conditions; (2) probes and primers (Ib) that hybridize to (I) or (Ia) under highly stringent conditions; (3) antisense nucleic acid (Ic) containing at least 15 consecutive nt from (I) or (Ia); (4) recombinant vector containing (I) or (Ia); (5) host cell transformed with (I), (Ia) or the vector of (4); (6) multicellular, recombinant vegetable organism containing at least one cell of (5); (7) plant transformed with (I), (Ia) or the vector of (4), optionally integrated into the genome; (8) preparing the plants of (7); (9) seeds from the plants of (7); (10) seeds in which the cells contain (I) or (Ia) in their genomes; (11) detecting nucleic acid of the genes RRS1-S or RRS1-R; (12) kit for the method of (11); (13) amplifying nucleic acid of the genes RRS1-S/-R; (14) kit for the method of (13); (15) polypeptide (IIIa) encoded by (I) or (Ia), optionally modified by up to 20 substitutions, additions or deletions of amino acids (aa); (16) peptide (IIIb) containing at least 5 consecutive aa of (IIIa); (17) fusion polypeptides (FP) comprising the N-terminal part of one of RRS1-S and -R, and the C-terminal part of the other; (18) nucleic acid (Id) encoding FP; (19) antibody (Ab) directed against (IIIa), (IIIb) or FP; (20) method for detecting (IIIa) or (IIIb); (21) diagnostic kit for the method of (20); (22) screening for compounds (A) that can bind to RRS1-R or -S; (23) kit for the method of (22); (24) (A) identified by the method of (22); (25) screening for nucleic acids that interact with (IIIa) or (IIIb); and (26) kit for the method of (25).

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