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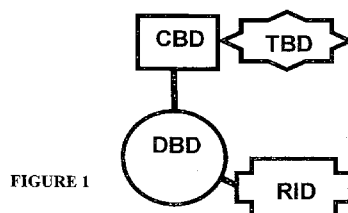
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(57) Abstract: An isolated polynucleotide sequence that encodes for a multi domain recombination protein, comprising a donor DNA-Binding domain (BDB); and a chromosomal binding domain (CBD). A plant cell can be transformed by introducing into the cell a first nucleic acid sequence, which comprises a plant nuclear promoter operably linked to a first nucleic acid sequence comprising the stated polynucleotide sequence, and a second nucleic acid sequence, which comprises a donor nucleic acid sequence and at least two flanking sequences capable of binding to a donor binding domain of the protein, the sequences being located adjacent to each end of the donor polynucleotide sequence forming left and right borders thereto.



INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
C12N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, CHEM ABS Data, Sequence Search, EMBASE, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2009/006297 A2 (PIONEER HI BRED INT [US]; LYZNIK L ALEKSANDER [US]; TAO YUMIN [US]; GA) 8 January 2009 (2009-01-08) claims 1-38	1-37
X	WO 03/031629 A1 (COPYRAT PTY LTD [AU]; MORRISON JOHN [AU]; ZHANG CHUNFANG [AU]) 17 April 2003 (2003-04-17) claims 1-56	1-37
X	WO 03/093428 A2 (PIONEER HI BRED INT [US]) 13 November 2003 (2003-11-13) claims 1-64	1-37
X	US 2005/048652 A1 (VOYTAS DANIEL [US] ET AL) 3 March 2005 (2005-03-03) claims 1-32	1-37
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☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

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International application No

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	SHIGERU IIDA ET AL: "Modification of Endogenous Natural Genes by Gene Targeting in Rice and Other Higher Plants" PLANT MOLECULAR BIOLOGY, KLUWER ACADEMIC PUBLISHERS, DORDRECHT, NL LNKD- DOI:10.1007/S11103-005-2162-X, vol. 59, no. 1, 1 September 2005 (2005-09-01), pages 205-219, XP019262756 ISSN: 1573-5028 the whole document	1-37
Y	REISS BERND: "Homologous recombination and gene targeting in plant cells" INTERNATIONAL REVIEW OF CYTOLOGY, ACADEMIC PRESS, vol. 228, 1 January 2003 (2003-01-01), pages 85-139, XP009125899 ISSN: 0074-7696 the whole document	1-37
A	REISS B ET AL: "RecA protein stimulates homologous recombination in plants" PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES (PNAS), NATIONAL ACADEMY OF SCIENCE, US LNKD- DOI:10.1073/PNAS.93.7.3094, vol. 93, no. 7, 1 April 1996 (1996-04-01), pages 3094-3098, XP002023622 ISSN: 0027-8424 the whole document	1-37
A	TOVKACH ANDRIY ET AL: "A toolbox and procedural notes for characterizing novel zinc finger nucleases for genome editing in plant cells" PLANT JOURNAL, vol. 57, no. 4, 24 November 2008 (2008-11-24), pages 747-757, XP002591473 ISSN: 0960-7412 the whole document	1-37
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INTERNATIONAL SEARCH REPORT

International application No

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	KUMAR ET AL: "Gene targeting in plants: fingers on the move" TRENDS IN PLANT SCIENCE, ELSEVIER SCIENCE, OXFORD, GB LNKD- DOI:10.1016/J.TPLANTS.2006.02.002, vol. 11, no. 4, 1 April 2006 (2006-04-01), pages 159-161, XP005400839 ISSN: 1360-1385 the whole document -----	1-37

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

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