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*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

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(54) Title: POLYNUCLEOTIDE SEQUENCES FROM RICE

(57) Abstract: The present invention provides polynucleotides isolated from eucaryotic organisms which are structural genes or promoters. Such isolated polynucleotides are particularly useful in the modification of gene expression in plants. This invention also relates to compositions isolated from plants and their use in the modification of gene activation and/or expression. In a specific embodiment, the subject invention provides plant polynucleotide sequences encoding promoters that are components of the cellular activation and transcription apparatus and the use of such polynucleotide sequences in the modification of expression of genes.



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## INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 01/13544

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12N15/82 C07K14/415 C12N15/29

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)

IPC 7 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)

SEQUENCE SEARCH, EP0-Internal, WPI Data, PAJ, BIOSIS

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	NAKAMURA T ET AL: "Four rice genes encoding cysteine synthase: isolation and differential responses to sulfur, nitrogen and light" GENE, ELSEVIER BIOMEDICAL PRESS. AMSTERDAM, NL, vol. 229, no. 1-2, 18 March 1999 (1999-03-18), pages 155-161, XP004161170 ISSN: 0378-1119 abstract; figure 1 ---	1-20
A	EP 0 984 064 A (JAPAN TOBACCO INC) 8 March 2000 (2000-03-08) Seq Id No 2 abstract page 2, line 30 -page 3, line 49 --- -/--	1-20

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

## \* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&amp;" document member of the same patent family

Date of the actual completion of the international search

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CEDER O.

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 01/13544

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>DATABASE WPI  Section Ch, Week 199538  Derwent Publications Ltd., London, GB;  Class C06, AN 1995-287968  XP002196809  &amp; JP 07 184657 A (JAPAN TAFU GURASU KK),  25 July 1995 (1995-07-25)  abstract</p> <p>---</p>	1-3
A	<p>PATENT ABSTRACTS OF JAPAN  vol. 1997, no. 07,  31 July 1997 (1997-07-31)  &amp; JP 09 084587 A (NORIN SUISANSYO NOGYO  SEIBUTSU SHIGEN KENKYUSHO),  31 March 1997 (1997-03-31)  abstract</p> <p>---</p>	1,2
A	<p>CHUANG CHIOU-FEN ET AL: "Specific and  heritable genetic interference by  double-stranded RNA in Arabidopsis  thaliana"  PROCEEDINGS OF THE NATIONAL ACADEMY OF  SCIENCES OF USA, NATIONAL ACADEMY OF  SCIENCE. WASHINGTON, US,  vol. 97, no. 9,  25 April 2000 (2000-04-25), pages  4985-4990, XP002184942  ISSN: 0027-8424  cited in the application</p> <p>---</p>	
A	<p>HAMILTON ANDREW J ET AL: "A species of  small antisense RNA in posttranscriptional  gene silencing in plants"  SCIENCE, AMERICAN ASSOCIATION FOR THE  ADVANCEMENT OF SCIENCE,, US,  vol. 286, no. 5441,  29 October 1999 (1999-10-29), pages  950-952, XP002189060  ISSN: 0036-8075  cited in the application</p> <p>-----</p>	

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US 01/13544

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
  
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
  
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
  
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
  
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-20 all partially

### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-20 all partially

An isolated polynucleotide sequence comprising Seq Id No 1, a vector comprising it, a transformed cell comprising the vector and a method for recombinant production of a polypeptide utilizing the vector.

2. Claims: 1-20 all partially

Idem as subject 1 but for Seq Id No 2.

3. Claims: 1-20 all partially

Idem as subject 1 but for Seq Id No 3.

4. Claims: 1-20 all partially

Idem as subject 1 but for Seq Id No 4.

5. Claims: 1-20 all partially

Idem as subject 1 but for Seq Id No 5.

6. Claims: 1-20 all partially

Idem as subject 1 but for Seq Id No 6.

7. Claims: 1-20 all partially

Idem as subject 1 but for Seq Id No 7.

8. Claims: 1-20 all partially

Idem as subject 1 but for Seq Id No 8.

9. Claims: 1-20 all partially

Idem as subject 1 but for Seq Id No 9.

10. Claims: 1-20 all partially

Idem as subject 1 but for Seq Id No 10.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

11. Claims: 1-20 all partially

Idem as subject 1 but for Seq Id No 11.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 01/13544

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0984064	A	08-03-2000	AU 745131 B2	14-03-2002
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