

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
7 April 2005 (07.04.2005)

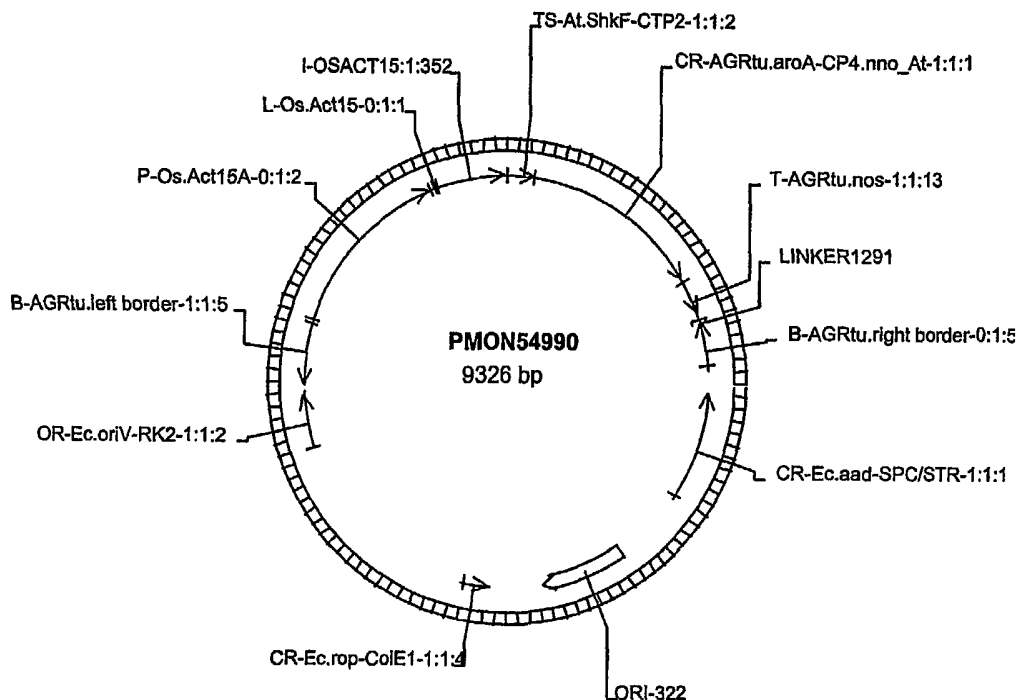
PCT

(10) International Publication Number
WO 2005/030968 A3

- (51) International Patent Classification⁷: C12N 15/82, A01H 5/00
- (74) Agent: SISSON, Pamela, J.; Monsanto Company, 800 N. Lindbergh Blvd., St. Louis, MO 63167 (US).
- (21) International Application Number: PCT/US2004/031628
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (22) International Filing Date: 24 September 2004 (24.09.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 60/505,949 25 September 2003 (25.09.2003) US
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- (71) Applicant (for all designated States except US): MON-SANTO TECHNOLOGY LLC [US/US]; 800 N. Lindbergh Blvd., St. Louis, MO 63167 (US).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): FLASINSKI, Stanislaw [US/US]; 2325 Laurenwood Drive, Chesterfield, MO 63017 (US).

[Continued on next page]

(54) Title: ACTIN REGULATORY ELEMENTS FOR USE IN PLANTS



(57) Abstract: The present invention provides polynucleotide molecules isolated from *Oryza sativa* and *Zea Mays* and useful for expressing transgenes in plants. The present invention also provides expression constructs containing; the polynucleotide molecules useful for expressing transgenes in plants. The present invention also provides transgenic plants and seeds containing the polynucleotide molecules useful for expressing transgenes in plants.

WO 2005/030968 A3



Published:

- *with international search report*
- *with sequence listing part of description published separately in electronic form and available upon request from the International Bureau*

(88) Date of publication of the international search report:
27 October 2005

(15) Information about Correction:

Previous Correction:

see PCT Gazette No. 24/2005 of 16 June 2005, Section II

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.

INTERNATIONAL SEARCH REPORT

PCT/US2004/031628

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 C12N15/82 A01H5/00

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 A01H

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, Sequence Search, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DATABASE EMBL [Online] 22 February 2001 (2001-02-22), "Oryza sativa (japonica cultivar-group) genomic DNA, chromosome 1, PAC clone:P0483G10." XP002311585 retrieved from EBI accession no. EM_PRO:AP003263 Database accession no. AP003263 abstract	1-3
Y	----- WO 00/70067 A (MCELROY DAVID ; WU RAY (US); CORNELL RES FOUNDATION INC (US); DEKALB G) 23 November 2000 (2000-11-23) page 4, line 3 page 10, line 20 page 18, paragraph 3 page 24, paragraph 2 ----- -/--	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.
- "&" document member of the same patent family

Date of the actual completion of the international search

3 January 2005

Date of mailing of the international search report

25 -07- 2005

Name and mailing address of the ISA
 European Patent Office, P.B. 5818 Patentlaan 2
 NL - 2280 HV Rijswijk
 Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
 Fax: (+31-70) 340-3016

Authorized officer

Holtorf, S

INTERNATIONAL SEARCH REPORT

PCT/US2004/031628

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 98/44140 A (MCELROY DAVID; STEPHENS MICHAEL A; SPENCER T MICHAEL ; MUMM RITA (US);) 8 October 1998 (1998-10-08) example 2 -----	1-20
A	WO 91/09948 A (CORNELL RES FOUNDATION INC) 11 July 1991 (1991-07-11) page 24 - page 25 -----	
A	MONIZ DE SA MARIO ET AL: "Phylogeny and substitution rates of angiosperm actin genes" MOLECULAR BIOLOGY AND EVOLUTION, vol. 13, no. 9, 1996, pages 1198-1212, XP008040724 ISSN: 0737-4038 the whole document -----	
A	WO 00/20571 A (SAAD MOHAMMED EID ; AGRICULTURAL GENETIC ENGINEERI (EG); PIONEER HI BR) 13 April 2000 (2000-04-13) figure 3 page 3, line 19 - line 20 page 4, paragraph 2 example 1 example 3 -----	

INTERNATIONAL SEARCH REPORT

PCT/US2004/031628

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
WO 0070067	A	23-11-2000	US	6429357 B1	06-08-2002
			AU	5723100 A	05-12-2000
			CA	2372859 A1	23-11-2000
			EP	1179081 A1	13-02-2002
			WO	0070067 A1	23-11-2000

WO 9844140	A	08-10-1998	US	6040497 A	21-03-2000
			AU	6882298 A	22-10-1998
			BR	9808475 A	23-05-2000
			CA	2285618 A1	08-10-1998
			EP	0975778 A1	02-02-2000
			WO	9844140 A1	08-10-1998
			US	6762344 B1	13-07-2004
			US	2005086719 A1	21-04-2005

WO 9109948	A	11-07-1991	AU	7182791 A	24-07-1991
			WO	9109948 A1	11-07-1991
			US	5641876 A	24-06-1997
			US	5684239 A	04-11-1997

WO 0020571	A	13-04-2000	AU	772908 B2	13-05-2004
			AU	6507799 A	26-04-2000
			CA	2343721 A1	13-04-2000
			EP	1117818 A2	25-07-2001
			WO	0020571 A2	13-04-2000
			US	2003097690 A1	22-05-2003
			US	6504083 B1	07-01-2003
			US	2004064856 A1	01-04-2004
US	2003200557 A1	23-10-2003			
