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(54) Title: PLANT PROMOTERS, CODING SEQUENCES AND THEIR USES

(57) Abstract: The present invention relates to materials and methods for the expression of a gene of interest in a particular tissue and for the modification of plant phenotype by preferential expression of a gene of interest in a particular tissue. In particular, the present invention relates to materials and methods for the expression of a gene of interest in endosperm and for modification of seed and/or fruit size in a plant and provides plant promoters active in endosperm and their uses.

International application No PCT/GB2007/001051

A. CLASSIFICATION OF SUBJECT MATTER INV. C12N15/82					
INV.	717M12\85				
According to	International Patent Classification (IPC) or to both national classification	ation and IPC			
B. FIELDS		<del></del>			
Minimum do	cumentation searched (classification system followed by classification	on symbols)			
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Documentat	ion searched other than minimum documentation to the extent that s	uch documents are included in the fields se	earched		
Electronic da	ata base consulted during the international search (name of data base	se and, where practical, search terms used	)		
EPO-In	ternal, BIOSIS, EMBASE, WPI Data, Se	equence Search			
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	ENTS CONSIDERED TO BE RELEVANT	<del></del>			
Category*	Citation of document, with indication, where appropriate, of the rel	evant passages	Relevant to claim No.		
			1,2,4-6,		
Х	DATABASE EMBL Arabidopsis thaliar	DATABASE EMBL Arabidopsis thaliana genomic			
	DNA clone MQD22 12 May 1998 (1998 NAKAMURA Y.:	3-05-12),	8,9, 12-17,		
	XP002455199		54-56		
	retrieved from EBI				
	Database accession no. AB013394;	BA000015			
	abstract				
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X Furti	her documents are listed in the continuation of Box C,	X See patent family annex.			
* Special c	ategories of cited documents :	"T" later document published after the inte	ernational filing date		
	ent defining the general state of the art which is not	or priority date and not in conflict with cited to understand the principle or the	the application but eory underlying the		
considered to be of particular relevance invention  "E" earlier document but published on or after the International "X" document of particular relevance; the claimed invention					
filing o		cannot be considered novel or cannot involve an inventive step when the do	be considered to		
which	is cited to establish the publication date of another	"Y" document of particular relevance; the o	claimed invention		
"O" docume	n or other special reason (as specified) ent referring to an oral disclosure, use, exhibition or	cannot be considered to involve an in document is combined with one or mo	ore other such docu-		
	means ant published prior to the international filling date but	ments, such combination being obvious in the art.	us to a person skilled		
	and the priority date claimed	"&" document member of the same patent	family		
Date of the	actual completion of the international search	Date of mailing of the international sea	rch report		
	E lagrany 2000	20 /01 /2000			
	5 January 2008	29/01/2008			
Name and r	mailing address of the ISA/	Authorized officer			
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ļ	Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Mundel, Christophe			

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International application No
PCT/GB2007/001051

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT						
Category*	Citation of document, with indication, where appropriate, of the relevant passages	1,2, 4-10, 12-26, 28-56				
X	STANGELAND B ET AL: "Isolation of GUS marker lines for genes expressed in Arabidopsis endosperm, embryo and maternal tissues" JOURNAL OF EXPERIMENTAL BOTANY, OXFORD UNIVERSITY PRESS, GB, vol. 54, no. 381, January 2003 (2003-01), pages 279-290, XP002323831 ISSN: 0022-0957 abstract page 280, right-hand column, line 7 - line 11 page 281, left-hand column, line 15 - right-hand column, line 33 page 285, right-hand column, line 48					
X	BAUD SEBASTIEN ET AL: "The AtSUC5 sucrose transporter specifically expressed in the endosperm is involved in early seed development in Arabidopsis" PLANT JOURNAL, vol. 43, no. 6, September 2005 (2005-09), pages 824-836, XP002454931 ISSN: 0960-7412 abstract	1,2, 4-10, 12-26, 28-56				
А	FR 2 799 203 A1 (BIOGEMMA [FR]) 6 April 2001 (2001-04-06) the whole document	1,2, 4-10, 12-26, 28-56				
Α	WO 98/08961 A (OLSEN ODD ARNE [NO]; DOAN DANNY N P [NO]; LINNESTAD CASPER [NO] OLSEN) 5 March 1998 (1998-03-05) the whole document	1,2, 4-10, 12-26, 28-56				
X	DATABASE EMBL Arabidopsis thaliana BAC clone T28J14 11 April 2000 (2000-04-11), BEVAN ET AL.: XP002464527 retrieved from EBI Database accession no. AL163652 abstract	1,3-9, 11-17, 54-56				

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International application No. PCT/GB2007/001051

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 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:
Claims Nos.:     because they relate to subject matter not required to be searched by this Authority, namely:
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 No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)
This International Searching Authority found multiple inventions in this international application, as follows:
see additional sheet
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 fees, this Authority did not invite payment of additional fees.
3. X As only some of the required additional search fees were timely paid by the applicant, this international search reportcovers only those claims for which fees were paid, specifically claims Nos.:  1-56 (all partially)
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.:
Remark on Protest  The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.  The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.  No protest accompanied the payment of additional search fees.

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

1. claims: 1-2, 4-10, 12-26, 28-56 (all partially)

An isolated nucleic acid comprising a promoter of the proliferative endosperm-expressed gene At546950 (SEQ ID NO: 1, 2 and 71). An expression cassette for integration into a plant genome comprising such a nucleic acid, a host cell comprising such a nucleic acid or such an expression cassette. A method for promoting transcription of a heterologous gene in endosperm using such a nucleic acid or such an expression cassette. Use of said nucleic acid or said expression cassette for modifying seed size in a plant. Use of said nucleic acid for identiying a corresponding promoter sequence from plant.

2. claims: 1-2, 4-10, 12-26, 28-56 (all partially)

An isolated nucleic acid comprising a promoter of the proliferative endosperm-expressed gene At1g14520 (SEQ ID NO: 3 and 4). An expression cassette for integration into a plant genome comprising such a nucleic acid, a host cell comprising such a nucleic acid or such an expression cassette. A method for promoting transcription of a heterologous gene in endosperm using such a nucleic acid or such an expression cassette. Use of said nucleic acid or said expression cassette for modifying seed size in a plant. Use of said nucleic acid for identiying a corresponding promoter sequence from plant.

3. claims: 1-2, 4-10, 12-26, 28-56 (all partially)

An isolated nucleic acid comprising a promoter of the proliferative endosperm-expressed gene At2g38900 (SEQ ID NO: 5 and 6). An expression cassette for integration into a plant genome comprising such a nucleic acid, a host cell comprising such a nucleic acid or such an expression cassette. A method for promoting transcription of a heterologous gene in endosperm using such a nucleic acid or such an expression cassette. Use of said nucleic acid or such an expression cassette for modifying seed size in a plant. Use of said nucleic acid for identiying a corresponding promoter sequence from plant.

4. claims: 1, 3-56 (all partially)

An isolated nucleic acid comprising a promoter of the proliferative endosperm-expressed gene At5g07210 (SEQ ID NO: 7, 8 and 72). An expression cassette for integration into a plant genome comprising such a nucleic acid, a host cell comprising such a nucleic acid or such an expression cassette. A method for promoting transcription of a heterologous gene in endosperm using such a nucleic acid or such an expression cassette. Use of said nucleic acid or said expression cassette for modifying seed size in a plant. Use of said nucleic acid for identiying a corresponding promoter sequence from plant.

5. claims: 1, 4-10, 12-26, 28-56 (all partially)

An isolated nucleic acid comprising a promoter of the proliferative endosperm-expressed gene At2g41000 (SEQ ID NO: 9 and 10). An expression cassette for integration into a plant genome comprising such a nucleic acid, a host cell comprising such a nucleic acid or such an expression cassette. A method for promoting transcription of a heterologous gene in endosperm using such a nucleic acid or such an expression cassette. Use of said nucleic acid or said expression cassette for modifying seed size in a plant. Use of said nucleic acid for identiying a corresponding promoter sequence from plant.

6. claims: 1, 4-10, 12-26, 28-56 (all partially)

An isolated nucleic acid comprising a promoter of the proliferative endosperm-expressed gene At5g39260 (SEQ ID NO: 11 and 12). An expression cassette for integration into a plant genome comprising such a nucleic acid, a host cell comprising such a nucleic acid or such an expression cassette. A method for promoting transcription of a heterologous gene in endosperm using such a nucleic acid or such an expression cassette. Use of said nucleic acid or said expression cassette for modifying seed size in a plant. Use of said nucleic acid for identiying a corresponding promoter sequence from plant.

7. claims: 1, 4-10, 12-26, 28-56 (all partially)

An isolated nucleic acid comprising a promoter of the proliferative endosperm-expressed gene At1g62080 (SEQ ID NO: 13 and 14). An expression cassette for integration into a plant genome comprising such a nucleic acid, a host cell comprising such a nucleic acid or such an expression cassette. A method for promoting transcription of a heterologous gene in endosperm using such a nucleic acid or such an expression cassette. Use of said nucleic acid or said expression cassette for modifying seed size in a plant. Use of said nucleic acid for identiying a corresponding promoter sequence from plant.

8. claims: 1-2, 4-10, 12-26, 28-56 (all partially)

An isolated nucleic acid comprising a promoter of the proliferative endosperm-expressed gene CAE04313 (SEQ ID NO: 61). An expression cassette for integration into a plant genome comprising such a nucleic acid, a host cell comprising such a nucleic acid or such an expression cassette. A method for promoting transcription of a heterologous gene in endosperm using such a nucleic acid or such an expression cassette. Use of said nucleic acid or said expression cassette for modifying seed size in a plant. Use of said nucleic acid for identiying a corresponding promoter sequence from plant.

9. claims: 1-2, 4-10, 12-26, 28-56 (all partially)

An isolated nucleic acid comprising a promoter of the proliferative endosperm-expressed gene BAD07668 (SEQ ID NO: 62). An expression cassette for integration into a plant genome comprising such a nucleic acid, a host cell comprising such a nucleic acid or such an expression cassette. A method for promoting transcription of a heterologous gene in endosperm using such a nucleic acid or such an expression cassette. Use of said nucleic acid or said exprssion cassette for modifying seed size in a plant. Use of said nucleic acid for identiying a corresponding promoter sequence from plant.

10. claims: 1-2, 4-10, 12-26, 28-56 (all partially)

An isolated nucleic acid comprising a promoter of the proliferative endosperm-expressed gene BAD07661 (SEQ ID NO: 63). An expression cassette for integration into a plant genome comprising such a nucleic acid, a host cell comprising such a nucleic acid or such an expression cassette. A method for promoting transcription of a heterologous gene in endosperm using such a nucleic acid or such an expression cassette. Use of said nucleic acid or said expression cassette for modifying seed size in a plant. Use of said nucleic acid for identiying a corresponding promoter sequence from plant.

11. claims: 1-2, 4-10, 12-26, 28-56 (all partially)

An isolated nucleic acid comprising a promoter of the proliferative endosperm-expressed gene BAD53821 (SEQ ID NO: 64). An expression cassette for integration into a plant genome comprising such a nucleic acid, a host cell comprising such a nucleic acid or such an expression cassette. A method for promoting transcription of a heterologous gene in endosperm using such a nucleic acid or such an expression cassette. Use of said nucleic acid or said expression cassette for modifying seed size in a plant. Use of said nucleic acid for identiying a corresponding promoter sequence from plant.

12. claims: 1-2, 4-10, 12-26, 28-56 (all partially)

An isolated nucleic acid comprising a promoter of the proliferative endosperm-expressed gene ABA98883 (SEQ ID NO: 65). An expression cassette for integration into a plant genome comprising such a nucleic acid, a host cell comprising such a nucleic acid or such an expression cassette. A method for promoting transcription of a heterologous gene in endosperm using such a nucleic acid or such an expression cassette. Use of said nucleic acid or said expression cassette for modifying seed size in a plant. Use of said nucleic acid for identiying a corresponding promoter sequence from plant.

13. claims: 1, 3-56 (all partially)

An isolated nucleic acid comprising a promoter of the proliferative endosperm-expressed gene BAD72541 (SEQ ID NO: 66). An expression cassette for integration into a plant genome comprising such a nucleic acid, a host cell comprising such a nucleic acid or such an expression cassette. A method for promoting transcription of a heterologous gene in endosperm using such a nucleic acid or such an expression cassette. Use of said nucleic acid or said expression cassette for modifying seed size in a plant. Use of said nucleic acid for identiying a corresponding promoter sequence from plant.

14. claims: 1, 4-10, 12-26, 28-56 (all partially)

An isolated nucleic acid comprising a promoter of the proliferative endosperm-expressed gene BAD81150 (SEQ ID NO: 67). An expression cassette for integration into a plant genome comprising such a nucleic acid, a host cell comprising such a nucleic acid or such an expression cassette. A method for promoting transcription of a heterologous gene in endosperm using such a nucleic acid or such an expression cassette. Use of said nucleic acid or said expression cassette for modifying seed size in a plant. Use of said nucleic acid for identiying a corresponding promoter sequence from plant.

15. claims: 1, 4-10, 12-26, 28-56 (all partially)

An isolated nucleic acid comprising a promoter of the proliferative endosperm-expressed gene XP493787 (SEQ ID NO: 68). An expression cassette for integration into a plant genome comprising such a nucleic acid, a host cell comprising such a nucleic acid or such an expression cassette. A method for promoting transcription of a heterologous gene in endosperm using such a nucleic acid or such an expression cassette. Use of said nucleic acid or said expression cassette for modifying seed size in a plant. Use of said nucleic acid for identiying a corresponding promoter sequence from plant.

16. claims: 1, 4-10, 12-26, 28-56 (all partially)

An isolated nucleic acid comprising a promoter of the proliferative endosperm-expressed gene XP475418 (SEQ ID NO: 69). An expression cassette for integration into a plant genome comprising such a nucleic acid, a host cell comprising such a nucleic acid or such an expression cassette. A method for promoting transcription of a heterologous gene in endosperm using such a nucleic acid or such an expression cassette. Use of said nucleic acid or said expression cassette for modifying seed size in a plant. Use of said nucleic acid for identiying a corresponding promoter sequence from plant.

17. claims: 1, 4-10, 12-26, 28-56 (all partially)

An isolated nucleic acid comprising a promoter of the proliferative endosperm-expressed gene BAD81125 (SEQ ID NO: 70). An expression cassette for integration into a plant genome comprising such a nucleic acid, a host cell comprising such a nucleic acid or such an expression cassette. A method for promoting transcription of a heterologous gene in endosperm using such a nucleic acid or such an expression cassette. Use of said nucleic acid or said expression cassette for modifying seed size in a plant. Use of said nucleic acid for identiying a corresponding promoter sequence from plant.

18. claims: 12-20, 23-25, 28-41, 43-45, 47-51, 54 (all partially)

An isolated nucleic acid comprising a promoter of the proliferative endosperm-expressed gene having the sequence shown in SEQ ID NO: 73 (Brassica promoter sequence). An expression cassette for integration into a plant genome comprising such a nucleic acid, a host cell comprising such a nucleic acid or such an expression cassette. A method for promoting transcription of a heterologous gene in endosperm using such a nucleic acid or such an expression cassette. Use of said nucleic acid or said expression cassette for modifying seed size in a plant. Use of said nucleic acid for identiying a corresponding promoter sequence from plant.

19. claims: 12-20, 23-25, 28-41, 43-45, 47-51, 54 (all partially)

An isolated nucleic acid comprising a promoter of the proliferative endosperm-expressed gene having the sequence shown in SEQ ID NO: 74 (Brassica promoter sequence). An expression cassette for integration into a plant genome comprising such a nucleic acid, a host cell comprising such a nucleic acid or such an expression cassette. A method for promoting transcription of a heterologous gene in endosperm using such a nucleic acid or such an expression cassette. Use of said nucleic acid or said expression cassette for modifying seed size in a plant. Use of said nucleic acid for identiying a corresponding promoter sequence from plant.

20. claims: 12-20, 23-25, 28-41, 43-45, 47-51, 54 (all partially)

An isolated nucleic acid comprising a promoter of the proliferative endosperm-expressed gene having the sequence shown in SEQ ID NO: 75 (Brassica promoter sequence). An expression cassette for integration into a plant genome comprising such a nucleic acid, a host cell comprising such a nucleic acid or such an expression cassette. A method for promoting transcription of a heterologous gene in endosperm using such a nucleic acid or such an expression cassette. Use of said nucleic acid or said expression cassette for modifying seed size in a plant. Use of said nucleic acid for identiying a corresponding promoter sequence from plant.

21. claims: 12-20, 23-25, 28-41, 43-45, 47-51, 54 (all partially)

An isolated nucleic acid comprising a promoter of the proliferative endosperm-expressed gene having he sequence shown in SEQ ID NO: 76 (Brassica promoter sequence). An expression cassette for integration into a plant genome comprising such a nucleic acid, a host cell comprising such a nucleic acid or such an expression cassette. A method for promoting transcription of a heterologous gene in endosperm using such a nucleic acid or such an expression cassette. Use of said nucleic acid or said expression cassette for modifying seed size in a plant. Use of said nucleic acid for identiying a corresponding promoter sequence from plant.

22. claims: 12-20, 23-25, 28-41, 43-45, 47-51, 54 (all partialy)

An isolated nucleic acid comprising a promoter of the proliferative endosperm-expressed gene having the sequence shown in SEQ ID NO: 77 (Brassica promoter sequence). An expression cassette for integration into a plant genome comprising such a nucleic acid, a host cell comprising such a nucleic acid or such an expression cassette. A method for promoting transcription of a heterologous gene in endosperm using such a nucleic acid or such an expression cassette. Use of said nucleic acid or said expression cassette for modifying seed size in a plant. Use of said nucleic acid for identiying a corresponding promoter sequence from plant.

23. claims: 12-20, 23-25, 28-41, 43-45, 47-51, 54 (all partially)

An isolated nucleic acid comprising a promoter of the proliferative endosperm-expressed gene having the sequence shown in SEQ ID NO: 78 (Brassica promoter sequence). An expression cassette for integration into a plant genome comprising such a nucleic acid, a host cell comprising such a nucleic acid or such an expression cassette. A method for promoting transcription of a heterologous gene in endosperm using such a nucleic acid or such an expression cassette. Use of said nucleic acid or said expression cassette for modifying seed size in a plant. Use of said nucleic acid for identiying a corresponding promoter sequence from plant.

24. claims: 12-20, 23-25, 28-41, 43-45, 47-51, 54 (all partially)

An isolated nucleic acid comprising a promoter of the proliferative endosperm-expressed gene having the sequence shown in SEQ ID NO: 79 (Brassica promoter sequence). An expression cassette for integration into a plant genome comprising such a nucleic acid, a host cell comprising such a nucleic acid or such an expression cassette. A method for promoting transcription of a heterologous gene in endosperm using such a nucleic acid or such an expression cassette. Use of said nucleic acid or said expression cassette for modifying seed size in a plant. Use of said nucleic acid for identiying a corresponding promoter sequence from plant.

25. claims: 12-20, 23-25, 28-41, 43-45, 47-51, 54 (all partially)

An isolated nucleic acid comprising a promoter of the proliferative endosperm-expressed gene having the sequence shown in SEQ ID NO: 80 (Brassica promoter sequence). An expression cassette for integration into a plant genome comprising such a nucleic acid, a host cell comprising such a nucleic acid or such an expression cassette. A method for promoting transcription of a heterologous gene in endosperm using such a nucleic acid or such an expression cassette. Use of said nucleic acid or said expression cassette for modifying seed size in a plant. Use of said nucleic acid for identiying a corresponding promoter sequence from plant.

26. claims: 12-20, 23-25, 28-41, 43-45, 47-51, 54 (all partially)

An isolated nucleic acid comprising a promoter of the proliferative endosperm-expressed gene having the sequence shown in SEQ ID NO: 81 (Brassica promoter sequence). An expression cassette for integration into a plant genome comprising such a nucleic acid, a host cell comprising such a nucleic acid or such an expression cassette. A method for promoting transcription of a heterologous gene in endosperm using such a nucleic acid or such an expression cassette. Use of said nucleic acid or said expression cassette for modifying seed size in a plant. Use of said nucleic acid for identiying a corresponding promoter sequence from plant.

Information on patent family members

International application No
PCT/GB2007/001051

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
FR 2799203	A1	06-04-2001	AU CA CZ EP WO HU PL US	782957 B2 7528300 A 2385763 A1 20021139 A3 1218510 A1 0125439 A1 0203513 A2 354293 A1 7071378 B1	15-09-2005 10-05-2001 12-04-2001 12-06-2002 03-07-2002 12-04-2001 28-08-2003 29-12-2003 04-07-2006
WO 9808961	Α	05-03-1998	AU	3781897 A	19-03-1998