

(19) World Intellectual Property Organization
International Bureau(43) International Publication Date
18 January 2001 (18.01.2001)

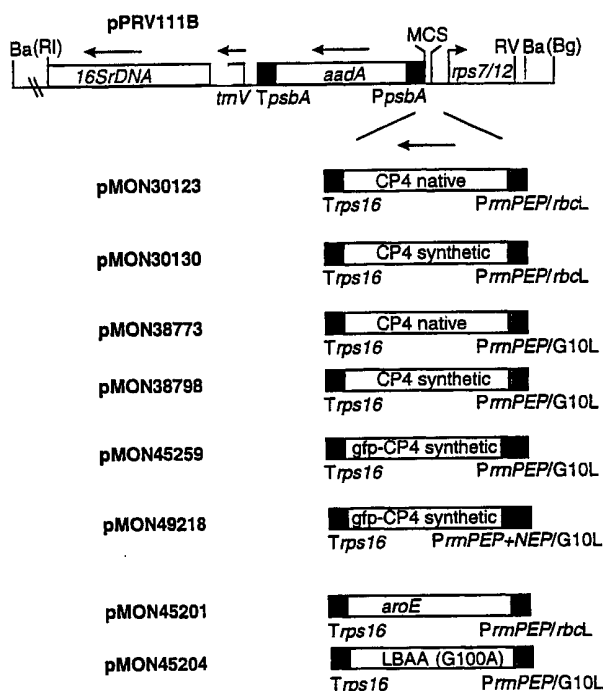
PCT

(10) International Publication Number
WO 01/04331 A3

- (51) International Patent Classification⁷: C12N 15/82, 9/10, 15/62, A01H 5/00
- (21) International Application Number: PCT/US00/18096
- (22) International Filing Date: 26 June 2000 (26.06.2000)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
09/351,124 9 July 1999 (09.07.1999) US
- (71) Applicant (for all designated States except US): CAL-GENE LLC [US/US]; 800 N. Lindbergh Blvd., St. Louis, MO 63167 (US).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): STAUB, Jeffrey, M. [US/US]; 819 "J" Foxsprings Drive, Chesterfield, MO 63017 (US).
- (74) Agent: WUELLNER, Gail; Calgene/Monsanto, Mail Code E2NA, 800 N. Lindbergh Boulevard, St. Louis, MO 63167 (US).
- (81) Designated States (national): AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CU, CZ, DE, DK, DZ, EE, 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, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).
- Published:
— with international search report
- (88) Date of publication of the international search report:
19 July 2001

[Continued on next page]

(54) Title: ENHANCED EXPRESSION OF PROTEINS USING GFP



(57) Abstract: Constructs which include a translational fusion of 14 amino acids derived from the green fluorescent protein are provided for the enhanced expression of proteins. Methods for the use of such constructs are also provided.



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

International Application No

PCT/US 00/18096

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12N15/82 C12N9/10 C12N15/62 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

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, WPI Data, PAJ, BIOSIS, CAB Data, CHEM ABS Data, STRAND

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 693 507 A (DANIELL HENRY ET AL) 2 December 1997 (1997-12-02) the whole document ----	1-35
A	WO 98 11235 A (CIBA GEIGY AG ;HEIFETZ PETER (US); LEBEL EDOUARD (US); UKNES SCOTT) 19 March 1998 (1998-03-19) the whole document ----	1-35
A	WO 95 24493 A (CALGENE INC ;MCBRIDE KEVIN E (US); STALKER DAVID M (US)) 14 September 1995 (1995-09-14) the whole document ----	1-35
A	WO 96 27675 A (MEDICAL RES COUNCIL ;HASELOFF JAMES PHILLIP (AU); HODGE SARAH (GB)) 12 September 1996 (1996-09-12) the whole document ----- -/--	1-35



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

18 January 2001

Date of mailing of the international search report

25/01/2001

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

Oderwald, H

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 00/18096

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, X, L	WO 00 03022 A (CALGENE LLC) 20 January 2000 (2000-01-20) the document throws doubt on the priority of the application see especially page 22 the whole document -----	1-35

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 00/18096

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5693507 A	02-12-1997	US 5932479 A	03-08-1999
WO 9811235 A	19-03-1998	AU 4414697 A	02-04-1998
		BR 9711769 A	24-08-1999
		CN 1230224 A	29-09-1999
		EP 0925362 A	30-06-1999
		PL 331767 A	02-08-1999
		HU 9904118 A	28-04-2000
WO 9524493 A	14-09-1995	US 5545817 A	13-08-1996
		CA 2185339 A	14-09-1995
		EP 0749491 A	27-12-1996
		JP 9510100 T	14-10-1997
		US 5866421 A	02-02-1999
WO 9627675 A	12-09-1996	AU 4884396 A	23-09-1996
WO 0003022 A	20-01-2000	NONE	