



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<b>(51) International Patent Classification <sup>7</sup> :</b> <b>C12N 15/82, C07K 14/415, C12N 15/11, A01H 5/00</b>	<b>A3</b>	<b>(11) International Publication Number:</b> <b>WO 00/26389</b> <b>(43) International Publication Date:</b> 11 May 2000 (11.05.00)
<b>(21) International Application Number:</b> PCT/EP99/08360 <b>(22) International Filing Date:</b> 2 November 1999 (02.11.99)  <b>(30) Priority Data:</b> 1998/46973                      3 November 1998 (03.11.98)      KR 1998/50126                      19 November 1998 (19.11.98)      KR  <b>(71) Applicant (for all designated States except AT US):</b> NOVARTIS AG [CH/CH]; Schwarzwaldallee 215, CH-4058 Basel (CH).  <b>(71) Applicant (for AT only):</b> NOVARTIS-ERFINDUNGEN VERWALTUNGSGESELLSCHAFT MBH [AT/AT]; Brunner Strasse 59, A-1230 Vienna (AT).  <b>(72) Inventors; and</b> <b>(75) Inventors/Applicants (for US only):</b> AN, Gynheung [US/KR]; Faculty Apt. 9-1803, Jigok-dong, Nam-gu, Pohang, Kyungbook 790-730 (KR). JEON, Jong-Seong [KR/KR]; HanSin Apartment 11-1303, 1095, Doksan-dong, Kumchun-gu, Seoul 153-011 (KR). CHUNG, Yong-Yoon [KR/KR]; Mido Apartment 101-109, Kangnam-ku, Daechi-dong, Seoul (KR). LEE, Sichul [KR/KR]; 1 Ri, 9 Ban, Dokye-eup, Samchok, Kangwon-do 235-900 (KR).		<b>(74) Agent:</b> BECKER, Konrad; Novartis AG, Corporate Intellectual Property, Patent & Trademark Department, CH-4002 Basel (CH).  <b>(81) Designated States:</b> AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, 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, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, 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).  <b>Published</b> <i>With international search report.</i>  <b>(88) Date of publication of the international search report:</b> 10 August 2000 (10.08.00)
<b>(54) Title:</b> DNA COMPRISING RICE ANther-SPECIFIC GENE AND TRANSGENIC PLANT TRANSFORMED THEREWITH		
<b>(57) Abstract</b>  This invention describes novel DNA sequences which function as promoters of anther-specific transcription of coding DNA sequences in recombinant or chimeric DNA sequences. The invention also describes recombinant or chimeric DNA sequences, which are expressed specifically in the anther of a plant. The said recombinant or chimeric DNA sequences may be used to create transgenic plants, but especially transgenic male-sterile plants.		

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# INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 99/08360

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC 7 C12N15/82 C07K14/415 C12N15/11 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 C07K

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)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 89 10396 A (PLANT GENETIC SYSTEMS NV) 2 November 1989 (1989-11-02)  the whole document ---	1,4-6,8, 11,20, 22-26
X	WO 96 40925 A (PIONEER HI BRED INT) 19 December 1996 (1996-12-19)  the whole document ---	1,4-6,8, 11,20, 22-26
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Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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Date of the actual completion of the international search  
  
**14 April 2000**

Date of mailing of the international search report  
  
**09/05/2000**

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# INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 99/08360

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>KOLTUNOW A M ET AL: "DIFFERENT TEMPORAL AND SPATIAL GENE EXPRESSION PATTERNS OCCUR DURING ANther DEVELOPMENT"                      PLANT CELL,                      vol. 2, no. 12,                      1 December 1990 (1990-12-01), pages                      1201-1224, XP002033709                      ISSN: 1040-4651                      cited in the application                      the whole document</p>	<p>1,4-6,8,                      11,20,                      22-26</p>
X	<p>MATSUNGA S ET AL: "ISOLATION AND DEVELOPMENTAL EXPRESSION OF MALE REPRODUCTIVE ORGAN-SPECIFIC GENES IN A DIOECIOUS CAMPION, MELANDRIUM ALBUM (SILENE LATIFOLIA)"                      PLANT JOURNAL,                      vol. 10, no. 4,                      1 January 1996 (1996-01-01), pages                      679-689, XP000619376                      ISSN: 0960-7412                      the whole document</p>	<p>1,4-6,8,                      11,20,                      22-26</p>
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P,X	<p>JEON J-S ET AL.: "Isolation and characterization of an anther-specific gene, RA8, from rice (Oryza sativa L.)"                      PLANT MOLECULAR BIOLOGY,                      vol. 39, no. 1, January 1999 (1999-01),                      pages 35-44, XP002135814                      the whole document</p>	<p>1-26</p>

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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