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(54) Title: NUCLEIC ACID ENCODING GAI GENE OF ARABIDOPSIS THALIANA

(57) Abstract

The *GAI* gene of *Arabidopsis thaliana* has been cloned, along with mutant and homologue gene sequences. Expression of such genes in plants affects characteristics of the plants including growth. *GAI* expression inhibits growth of plants, which inhibition is antagonised by gibberellin (GA). Expression of *gai* mutants confers a dwarf phenotype which is GA-insensitive. Manipulation of expression of *GAI* and *gai* genes in plants results in tall or dwarfed plants. Dwarf plants are useful in particular for reduction in crop losses resulting from lodging.

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INTERNATIONAL SEARCH REPORT

Intern ial Application No
PCT/GB 97/00390

A. CLASSIFICATION OF SUBJECT MATTER
IPC 6 C07K14/415 C12N15/29 //C12N15/82

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 6 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.
Y	PLANT CELL, vol. 5, March 1993, MD US, pages 351-360, XP000676411 PENG J. AND HARBERD N.: "Derivative alleles of the Arabidopsis Gibberellin-insensitive (gai) mutation confer a wild type phenotype" cited in the application see the whole document ---	1-6, 8-12, 16-18
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[X] Further documents are listed in the continuation of box C.

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Date of the actual completion of the international search	Date of mailing of the international search report
16 July 1997	28.07.97

Name and mailing address of the ISA	Authorized officer
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	Panzica, G

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Interr nal Application No
PCT/GB 97/00390

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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A	PLANT MOLECULAR BIOLOGY, vol. 26, December 1994, DORDRECHT NL, pages 1529-1555, XP000676413 HOOLEY R.: "Gibberellins: perception, transduction and responses" cited in the application see page 1529, column 1 see page 1539, column 1, paragraph 2 - page 1543, column 1, paragraph 1 see page 1549, column 2 ---	1-15
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