

## Title (en)

MARKER ASSISTED IDENTIFICATION OF A GENE ASSOCIATED WITH A PHENOTYPIC TRAIT

## Title (de)

MARKERGESTÜTZTE IDENTIFIZIERUNG EINES FÜR EINE PHÄNOTYPISCHE EIGENSCHAFT VERANTWORTLICHEN GENS

## Title (fr)

IDENTIFICATION ASSISTEE PAR MARQUEUR D'UN GENE ASSOCIE A UN TRAIT PHENOTYPIQUE

## Publication

**EP 1230385 A4 20041208 (EN)**

## Application

**EP 00968844 A 20001006**

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- US 0027719 W 20001006
- US 15853799 P 19991008

## Abstract (en)

[origin: WO0127325A1] The invention provides a method of associating a gene or an expression product with a complexly inherited phenotypic trait of interest in a plant. Plants are segregated by the presence or absence of a genetic marker. One or more of the segregated groups are expression profiled to determine the gene associated with the phenotypic trait of interest. The gene associated with the phenotypic trait of interest can be identified and/or isolated.

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## IPC 8 full level

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## Citation (search report)

- [X] WO 9932661 A1 19990701 - PIONEER HI BRED INT [US], et al
- [X] WO 9841655 A1 19980924 - DU PONT [US], et al
- [X] WO 8907647 A1 19890824 - PIONEER HI BRED INT [US]
- [X] US 5437697 A 19950801 - SEBASTIAN SCOTT A [US], et al
- [X] US 5746023 A 19980505 - HANAFEY MICHAEL K [US], et al
- [X] LEE S H ET AL: "Identification of quantitative trait loci for plant height, lodging, and maturity in a soybean population segregating for growth habit", THEORETICAL AND APPLIED GENETICS, vol. 92, no. 5, 1996, pages 516 - 523, XP008036819, ISSN: 0040-5752
- See references of WO 0127325A1

## Citation (examination)

- WO 9913107 A1 19990318 - WARNER LAMBERT CO [US], et al
- CICILA G.T.; SOON JIN LEE: "Identifying Candidate Genes for Blood Pressure Quantitative Trait Loci Using Differential Gene Expression and a Panel of Congenic Strains", HYPERTENS. RES. VOL., vol. 21, no. 4, 1998, OSAKA, JP, pages 289 - 296
- PELLESCI ET AL: "lvr2, a candidate gene for a QTL of vacuolar invertase activity in maize leaves. Gene specific expression under water stress", PLANT MOLECULAR BIOLOGY, vol. 39, January 1999 (1999-01-01), pages 373 - 380
- KLIEBENSTEIN DAN: "Quantitative Genomics: Analyzing Intraspecific Variation Using Global Gene Expression Polymorphisms or eQTLs", ANNUAL REVIEW OF PLANT BIOLOGY, vol. 60, 2009, pages 93 - 114, ISSN: 1543-5008
- SHI CHUN ET AL: "Identification of candidate genes associated with cell wall digestibility and eQTL (expression quantitative trait loci) analysis in a Flint \* Flint maize recombinant inbred line population", BMC GENOMICS, BIOMED CENTRAL, LONDON, GB, vol. 8, no. 1, 18 January 2007 (2007-01-18), pages 22, XP021022325, ISSN: 1471-2164, DOI: 10.1186/1471-2164-8-22
- KEURENTJES JOOST J B ET AL: "Regulatory network construction in Arabidopsis by using genome-wide gene expression quantitative trait loci.", PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA 30 JAN 2007 LNKD-PUBMED:17237218, vol. 104, no. 5, 30 January 2007 (2007-01-30), pages 1708 - 1713, ISSN: 0027-8424
- JANSEN R C ET AL: "Genetical genomics: the added value from segregation", TRENDS IN GENETICS, ELSEVIER SCIENCE PUBLISHERS B.V. AMSTERDAM, NL, vol. 17, no. 7, 1 July 2001 (2001-07-01), pages 388 - 391, XP004246223, ISSN: 0168-9525, DOI: 10.1016/S0168-9525(01)02310-1
- WEST MARILYN A L ET AL: "Global eQTL mapping reveals the complex genetic architecture of transcript-level variation in Arabidopsis", GENETICS, vol. 175, no. 3, March 2007 (2007-03-01), pages 1441 - 1450, ISSN: 0016-6731

## Cited by

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