

Title (en)

ODORANT RECEPTORS AND USES THEREOF.

Title (de)

GERÜCHESREZEPTOREN UND IHRE ANWENDUNGEN.

Title (fr)

RECEPTEURS DE SUBSTANCES ODORANTES ET LEURS UTILISATIONS.

Publication

**EP 0578784 A1 19940119 (EN)**

Application

**EP 92917380 A 19920406**

Priority

US 68188091 A 19910405

Abstract (en)

[origin: WO9217585A1] The invention provides an isolated nucleic acid, e.g. cDNA encoding an odorant receptor. The invention further provides expression vectors containing such nucleic acid. Also provided is a purified protein encoding an odorant receptor, with the aforementioned expression vectors and the resulting transformed cell. The invention also provides methods of identifying odorant ligands and of identifying odorant receptors. The invention further provides methods of developing fragrances, of identifying appetite suppressant compounds, of controlling appetite, of controlling pest populations, of promoting and inhibiting fertility, and of detecting odors.

Abstract (fr)

La présente invention se rapporte à un acide nucléique isolé, par exemple de l'ADN codant un récepteur de substances odorantes, ainsi qu'à des vecteurs d'expression contenant un tel acide nucléique, et à une protéine purifiée codant un récepteur de substances odorantes, avec les vecteurs d'expression susmentionnés, et à la cellule transformée résultante. On décrit également des procédés d'identification de ligands de substances odorantes et d'identification de récepteurs de ces substances, ainsi que des procédés de développement d'arômes, d'identification de composés supprimant l'appétit et de régulation de l'appétit, de même que des procédés permettant de maîtriser des colonies de parasites, de stimuler et d'inhiber la fertilité et de détecter les odeurs.

IPC 1-7

**C12N 15/12; C12N 15/63; C12N 15/64; C12N 5/10; C07K 13/00; A01N 33/00; A61K 37/00**

IPC 8 full level

**A01N 61/00** (2006.01); **A01N 63/50** (2020.01); **A61L 9/01** (2006.01); **C07K 14/00** (2006.01); **C07K 14/705** (2006.01); **C12N 15/09** (2006.01); **C12N 15/12** (2006.01); **C12P 21/02** (2006.01); **A61K 38/00** (2006.01); **C12R 1/91** (2006.01)

CPC (source: EP US)

**A01N 63/50** (2020.01 - EP US); **A61L 9/01** (2013.01 - EP US); **C07K 14/705** (2013.01 - EP); **A61K 38/00** (2013.01 - EP)

Citation (third parties)

Third party :

- WO 0127158 A2 20010419 - DIGISCENTS [US], et al
- WO 9412635 A2 19940609 - ICOS CORP [US]
- ABE K. ET AL: "PRIMARY STRUCTURE AND CELL-TYPE SPECIFIC EXPRESSION OF A GUSTATORY G PROTEIN-COUPLED RECEPTOR RELATED TO OLFACTORY RECEPTORS", JOURNAL OF BIOLOGICAL CHEMISTRY, vol. 268, no. 16, 5 June 1993 (1993-06-05), pages 12033 - 12039, XP000857320
- GAUDIN J.-C. ET AL: "New GPCRs from a Human Lingual cDNA Library", CHEM.SENSES, vol. 26, 2001, pages 1157 - 1166, XP002969019
- HEGG C.C. ET AL: "Activation of Purinergic Receptor Subtypes Modulates Odor Sensitivity", THE JOURNAL OF NEUROSCIENCE, vol. 23, no. 23, 10 September 2003 (2003-09-10), pages 8291 - 8301, XP002969020
- KOSTER N.L. ET AL: "Olfactory Receptor Neurons Express D2 Dopamine Receptors", THE JOURNAL OF COMPARATIVE NEUROLOGY, vol. 411, 1999, pages 666 - 673, XP002969021
- MOMBAERTS P.: "MOLECULAR BIOLOGY OF ODORANT RECEPTORS IN VERTEBRATES", ANNUAL REVIEW NEUROSCIENCE, vol. 22, 1999, pages 487 - 509, XP000891908
- PILPEL Y. AND LANCET D.: "The variable and conserved interfaces of modeled olfactory receptor proteins", PROTEIN SCIENCE, vol. 8, 1999, pages 969 - 977, XP002969022
- VANDERHAEGHEN P. ET AL: "Specific Repertoire of Olfactory Receptor Genes in the Male Germ Cells of Several Mammalian Species", GENOMICS, vol. 39, no. 3, 1 February 1997 (1997-02-01), pages 239 - 246, XP004459423
- ZHANG X. AND FIRESTEIN S.: "The olfactory receptor gene superfamily of the mouse", NATURE NEUROSCIENCE, vol. 5, no. 2, 2002, pages 124 - 133, XP002969023
- ZOZULYA S. ET AL: "The human olfactory receptor repertoire", GENOME BIOLOGY, vol. 2, no. 6, 1 June 2001 (2001-06-01), pages 0018.1 - 0018.12, XP002969024, Retrieved from the Internet <URL:<http://genomeweb.com>> [retrieved on 20010206]
- DATABASE GENPEPT 8 February 1999 (1999-02-08), KRAUTWURST D. ET AL: "Olfactory receptor G7 (Mus Musculus)", XP002991401
- SPEHR M. ET AL: "Identification of a testicular odorant receptor mediating human sperm chemotaxis", SCIENCE MAG, vol. 299, 28 March 2003 (2003-03-28), pages 2054 - 2058, XP002268735

Designated contracting state (EPC)

AT BE CH DE DK ES FR GB GR IT LI LU MC NL SE

DOCDB simple family (publication)

**WO 9217585 A1 19921015**; AU 1796192 A 19921102; AU 669107 B2 19960530; CA 2106847 A1 19921006; EP 0578784 A1 19940119; EP 0578784 A4 19941102; JP H06509702 A 19941102

DOCDB simple family (application)

**US 9202741 W 19920406**; AU 1796192 A 19920406; CA 2106847 A 19920406; EP 92917380 A 19920406; JP 51024892 A 19920406