

Title (en)  
RANDOM PEPTIDES THAT BIND TO GASTRO-INTESTINAL TRACT (GIT) TRANSPORT RECEPTORS AND RELATED METHODS

Title (de)  
WILLKÜRLICHE PEPTIDE WELCHE TRANSPORTREZEPTOREN DES GASTRO-INTESTINALEN TRAKTS BINDEN UND VERFAHREN DAMIT

Title (fr)  
PEPTIDES ALEATOIRES SE LIANT AU RECEPTEURS DE TRANSPORT DU TRACTUS GASTROINTESTINAL (GIT) ET PROCEDES Y RELATIFS

Publication  
**EP 1019071 A4 20030730 (EN)**

Application  
**EP 98922385 A 19980515**

Priority  

- US 4659597 P 19970515
- US 9810088 W 19980515

Abstract (en)  
[origin: WO9851325A2] This invention relates to proteins (e.g., peptides) that are capable of facilitating transport of an active agent through a human or animal gastro-intestinal tissue, and derivatives (e.g., fragments) and analogs thereof, and nucleotide sequences coding for said proteins and derivatives. The proteins of the invention have use in facilitating transport of active agents from the luminal side of the GIT into the systemic blood system, and/or in targeting active agents to the GIT. Thus, for example, by binding (covalently or noncovalently) a protein of the invention to an orally administered drug, the drug can be targeted to specific receptor sites or transport pathways which are known to operate in the human gastro-intestinal tract, thus facilitating its absorption into the systemic system.

IPC 1-7  
**A61K 38/28**; **A61K 38/09**; **C07K 5/10**; **A61K 9/51**; **C07K 14/705**

IPC 8 full level  
**C12N 15/09** (2006.01); **A61K 9/51** (2006.01); **A61K 38/00** (2006.01); **A61K 38/09** (2006.01); **A61K 38/28** (2006.01); **A61K 47/42** (2006.01); **A61P 5/48** (2006.01); **A61P 7/00** (2006.01); **A61P 7/06** (2006.01); **A61P 9/12** (2006.01); **A61P 19/10** (2006.01); **A61P 25/06** (2006.01); **A61P 35/00** (2006.01); **A61P 43/00** (2006.01); **C07K 1/04** (2006.01); **C07K 5/04** (2006.01); **C07K 5/103** (2006.01); **C07K 5/107** (2006.01); **C07K 7/04** (2006.01); **C07K 14/00** (2006.01); **C07K 14/47** (2006.01); **C07K 14/705** (2006.01); **C07K 16/18** (2006.01); **C12N 1/15** (2006.01); **C12N 1/19** (2006.01); **C12N 1/21** (2006.01); **C12N 5/10** (2006.01); **C12P 21/02** (2006.01); **C12Q 1/68** (2006.01)

CPC (source: EP)  
**A61K 9/5153** (2013.01); **A61K 38/09** (2013.01); **A61K 38/28** (2013.01); **A61K 47/62** (2017.07); **A61K 47/6937** (2017.07); **A61P 5/48** (2017.12); **A61P 7/00** (2017.12); **A61P 7/06** (2017.12); **A61P 9/12** (2017.12); **A61P 19/10** (2017.12); **A61P 25/06** (2017.12); **A61P 35/00** (2017.12); **A61P 43/00** (2017.12); **B82Y 5/00** (2013.01); **C07K 1/047** (2013.01); **C07K 5/1013** (2013.01); **C07K 5/1016** (2013.01); **C07K 14/001** (2013.01); **C07K 14/705** (2013.01); **C07K 2319/00** (2013.01)

Citation (search report)  

- [PX] WO 9717613 A1 19970515 - ELAN CORP PLC [IE], et al
- [E] WO 9851825 A1 19981119 - ELAN CORP PLC [IE], et al
- [X] STEVENSON C L ET AL: "PERMEABILITY SCREEN FOR SYNTHETIC PEPTIDE COMBINATORIAL LIBRARIES USING CACO-2 CELL MONOLAYERS AND LC/MS/MS", PHARMACEUTICAL RESEARCH, NEW YORK, NY, US, vol. 12, no. 9, SUPPL, September 1995 (1995-09-01), pages S94, ANBIOTEC2064, XP009000612, ISSN: 0724-8741
- [A] CHANTRET I ET AL: "SEQUENCE OF THE COMPLETE CDNA AND THE 5' STRUCTURE OF THE HUMAN SUCRASE-ISOMALTASE GENE. POSSIBLE HOMOLOGY WITH A YEAST GLUCOAMYLASE", BIOCHEMICAL JOURNAL, THE BIOCHEMICAL SOCIETY, LONDON, GB, vol. 285, no. 3, 1992, pages 915 - 923, XP000909979, ISSN: 0264-6021
- [A] LEE W S ET AL: "CLONING AND CHROMOSOMAL LOCALIZATION OF A HUMAN KIDNEY CDNA INVOLVED IN CYSTINE, DIBASIC, AND NEUTRAL AMINO ACID TRANSPORT", JOURNAL OF CLINICAL INVESTIGATION, NEW YORK, NY, US, vol. 91, no. 5, 1993, pages 1959 - 1963, XP000910010, ISSN: 0021-9738
- [A] DANTZIG ANNE H ET AL: "Association of intestinal peptide transport with a protein related to the cadherin superfamily.", SCIENCE (WASHINGTON D C), vol. 264, no. 5157, 1994, pages 430 - 433, XP001121129, ISSN: 0036-8075
- [PY] LAMBKIN I ET AL: "IN VITRO SELECTION OF PEPTIDES WHICH FACILITATE TRANSPORT ACROSS ISOLATED RAT COLON MUCOSAE FROM RANDOM PHAGE DISPLAY LIBRARIES", PHARMACEUTICAL RESEARCH, NEW YORK, NY, US, vol. 14, no. 11, November 1997 (1997-11-01), pages S - 645, XP000915519, ISSN: 0724-8741
- [PY] LAMBKIN I ET AL: "IDENTIFICATION AND CHARACTERISATION OF PEPTIDES WHICH FACILITATE TRANSPORT ACROSS CACO-2 CELL MONOLAYERS FROM A RANDOM PHAGE DISPLAY LIBRARY", PHARMACEUTICAL RESEARCH, NEW YORK, NY, US, vol. 14, no. 11, November 1997 (1997-11-01), pages 667, XP000915523, ISSN: 0724-8741
- [T] LAMBKIN ET PINILLA: "Targeting approaches to oral drug delivery.", EXPERT OPINION ON BIOLOGICAL THERAPY. ENGLAND JAN 2002, vol. 2, no. 1, January 2002 (2002-01-01), pages 67 - 73, XP002229897, ISSN: 1471-2598
- See references of WO 9851325A2

Designated contracting state (EPC)  
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)  
**WO 9851325 A2 19981119**; **WO 9851325 A3 19981217**; AU 7494398 A 19981208; AU 755154 B2 20021205; CA 2290756 A1 19981119; EP 1019071 A2 20000719; EP 1019071 A4 20030730; JP 2002504811 A 20020212; JP 4129298 B2 20080806; NZ 501110 A 20011026

DOCDB simple family (application)  
**US 9810088 W 19980515**; AU 7494398 A 19980515; CA 2290756 A 19980515; EP 98922385 A 19980515; JP 54964498 A 19980515; NZ 50111098 A 19980515