Title (en)

METHODS AND COMPOSITIONS FOR SYNTHESIS OF NUCLEIC ACID MOLECULES USING MULTIPLE RECOGNITION SITES

Title (de)

VERFAHREN UND ZUSAMMENSETZUNGEN ZUR SYNTHESE VON NUKLEINSÄUREMOLEKÜLEN UNTER VERWENDUNG VON MEHRFACHERKENNUNGSSTELLEN

Title (fr)

METHODES ET COMPOSITIONS POUR SYNTHESE DE MOLECULES D'ACIDES NUCLEIQUES A L'AIDE DE SITES DE RECONNAISSANCE MULTIPLES

Publication

EP 1539998 A4 20071031 (EN)

Application

EP 03741892 A 20030605

Priority

- US 0318036 W 20030605
- US 38561302 P 20020605

Abstract (en)

[origin: WO03103600A2] The present invention provides compositions and methods for recombinational cloning. The compositions include vectors having multiple recombination sites and/or multiple topoisomerase recognition sites. The methods permit the simultaneous cloning of two or more different nucleic acid molecules. In some embodiments the molecules are fused together while in other embodiments the molecules are inserted into distinct sites in a vector. The invention also generally provides for linking or joining through recombination a number of molecules and/or compounds (e.g., chemical compounds, drugs, proteins or peptides, lipids, nucleic acids, carbohydrates, etc.) which may be the same or different. The invention also provides host cells comprising nucleic acid molecules of the invention or prepared according to the methods of the invention, and also provides kits comprising the compositions, host cells and nucleic acid molecules of the invention, which may be used to synthesize nucleic acid molecules according to the methods of the invention.

IPC 1-7

C12Q 1/68; C12N 1/21; C12N 15/00; C12N 15/11; C12N 15/63; C12P 19/34

IPC 8 full level

C12N 1/21 (2006.01); **C12N 15/10** (2006.01); **C12N 15/64** (2006.01); **C12N 15/66** (2006.01); **C12N 15/90** (2006.01)

CPC (source: EP)

C12N 15/10 (2013.01); **C12N 15/64** (2013.01); **C12N 15/66** (2013.01); **C12N 15/902** (2013.01); C12N 2800/108 (2013.01); C12N 2800/30 (2013.01); C12N 2800/70 (2013.01); C12N 2840/20 (2013.01)

Citation (search report)

- [X] US 5888732 A 19990330 - HARTLEY JAMES L [US], et al
- [X] SHUMAN STEWART: "Novel approach to molecular cloning and polynucleotide synthesis using vaccinia DNA topoisomerase", JOURNAL OF BIOLOGICAL CHEMISTRY, AMERICAN SOCIETY OF BIOLOCHEMICAL BIOLOGISTS, BIRMINGHAM,, US, vol. 269, no. 51, 23 December 1994 (1994-12-23), pages 32678 - 32684, XP002164562, ISSN: 0021-9258
- [X] ZECHIEDRICH E LYNN ET AL: "Topoisomerase IV, not gyrase, decatenates products of site-specific recombination in Escherichia coli", GENES AND DEVELOPMENT, vol. 11, no. 19, 1997, pages 2580 - 2592, XP002450742, ISSN: 0890-9369
- See references of WO 03103600A2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

Designated extension state (EPC)

AL LT LV MK

DOCDB simple family (publication)

WO 03103600 A2 20031218; **WO 03103600 A3 20041007**; AU 2003273995 A1 20031222; AU 2003273995 A8 20031222; EP 1539998 A2 20050615; EP 1539998 A4 20071031

DOCDB simple family (application)

US 0318036 W 20030605; AU 2003273995 A 20030605; EP 03741892 A 20030605