

Title (en)

TARGET ASSISTED ITERATIVE SCREENING (TAIS) : A NOVEL SCREENING FORMAT FOR LARGE MOLECULAR REPERTOIRES

Title (de)

TARGET-ASSISTIERTES ITERATIVES SCREENING (TAIS): EIN NEUES SCREENING-FORMAT FÜR GROSSE MOLEKULARE REPERTOIRES

Title (fr)

CRIBLAGE ITERATIF ASSISTE PAR CIBLES (TAIS), NOUVEAU FORMAT DE CRIBLAGE POUR GRANDS REPERTOIRES MOLECULAIRES

Publication

EP 1438584 A4 20061227 (EN)

Application

EP 02783996 A 20021001

Priority

- US 0231349 W 20021001
- US 32656601 P 20011001

Abstract (en)

[origin: WO03029821A1] This invention provides a new in vitro screening method for the detection of protein-protein and other interactions. The method has been developed and applied to a commercial cDNA library to search for novel protein-protein interactions. PDZ, WW and SH3 domains from PSD95, Nedd4, Src, Abl and Crk proteins were used as test targets. 12 novel putative and 2 previously reported interactions were identified for 6 protein interaction modules in test screens. The novel screening format, dubbed TAIS (target-assisted iterative screening), provides an alternative platform to existing technologies for a pair-wise characterization of protein-protein, and other, interactions.

IPC 1-7

G01N 33/53; C12Q 1/70; C12P 21/04; C07K 16/00

IPC 8 full level

C12N 15/10 (2006.01); **C12P 21/04** (2006.01); **C12Q 1/68** (2006.01); **C12Q 1/6883** (2018.01); **C40B 30/04** (2006.01); **C40B 40/02** (2006.01); **G01N 33/68** (2006.01)

CPC (source: EP)

C12N 15/1037 (2013.01); **C12Q 1/6883** (2013.01); **C40B 30/04** (2013.01); **C40B 40/02** (2013.01); **G01N 33/6845** (2013.01)

Citation (search report)

- [X] WO 9609411 A1 19960328 - CYTOGEN CORP [US]
- [XY] WO 0071694 A1 20001130 - SCRIPPS RESEARCH INST [US]
- [X] DE WILDT RUUD M T ET AL: "Antibody arrays for high-throughput screening of antibody-antigen interactions", NATURE BIOTECHNOLOGY, NATURE PUBLISHING GROUP, NEW YORK, NY, US, vol. 18, no. 9, September 2000 (2000-09-01), pages 989 - 994, XP002162316, ISSN: 1087-0156
- [X] KAY B K ET AL: "From peptides to drugs via phage display", DRUG DISCOVERY TODAY 1998 UNITED KINGDOM, vol. 3, no. 8, 1998, pages 370 - 378, XP002405768, ISSN: 1359-6446
- [X] PINCUS S ET AL: "Peptides that mimic the group B streptococcal type III capsular polysaccharide antigen", JOURNAL OF IMMUNOLOGY, THE WILLIAMS AND WILKINS CO. BALTIMORE, US, vol. 160, no. 1, 1998, pages 293 - 298, XP002102148, ISSN: 0022-1767
- [XY] KAY B K ET AL: "Convergent evolution with combinatorial peptides", FEBS LETTERS, ELSEVIER, AMSTERDAM, NL, vol. 480, no. 1, 25 August 2000 (2000-08-25), pages 55 - 62, XP004597873, ISSN: 0014-5793
- [XY] FUH G ET AL: "Analysis of PDZ domain-ligand interactions using carboxyl-terminal phage display", JOURNAL OF BIOLOGICAL CHEMISTRY, AMERICAN SOCIETY OF BIOLOCHEMICAL BIOLOGISTS, BIRMINGHAM,, US, vol. 275, no. 28, 14 July 2000 (2000-07-14), pages 21486 - 21491, XP002356319, ISSN: 0021-9258
- [XY] SPARKS A B ET AL: "CLONING OF LIGAND TARGETS: SYSTEMATIC ISOLATION OF SH3 DOMAIN- CONTAINING PROTEINS", NATURE BIOTECHNOLOGY, NATURE PUBLISHING GROUP, NEW YORK, NY, US, vol. 14, no. 6, June 1996 (1996-06-01), pages 741 - 744, XP000876847, ISSN: 1087-0156
- [XY] SALCINI A E ET AL: "BINDING SPECIFICITY AND IN VIVO TARGETS OF THE EH DOMAIN, A NOVEL PROTEIN-PROTEIN INTERACTION MODULE", GENES AND DEVELOPMENT, COLD SPRING HARBOR, NY, US, vol. 11, no. 17, 1 September 1997 (1997-09-01), pages 2239 - 2249, XP002073498, ISSN: 0890-9369
- [PX] KURAIKIN ALEXEI ET AL: "Target-assisted iterative screening reveals novel interactors for PSD95, Nedd4, Src, Abl and Crk proteins", JOURNAL OF BIOMOLECULAR STRUCTURE AND DYNAMICS, vol. 19, no. 6, June 2002 (2002-06-01), pages 1015 - 1029, XP009074465, ISSN: 0739-1102
- See references of WO 03029821A1

Designated contracting state (EPC)

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

DOCDB simple family (publication)

WO 03029821 A1 20030410; CA 2462732 A1 20030410; EP 1438584 A1 20040721; EP 1438584 A4 20061227

DOCDB simple family (application)

US 0231349 W 20021001; CA 2462732 A 20021001; EP 02783996 A 20021001