

Title (en)
DUAL VARIABLE DOMAIN IMMUNOGLOBULIN AND USES THEREOF

Title (de)
DOPPEL-VARIABEL-DOMÄNEN-IMMUNGLOBULIN UND SEINE VERWENDUNGEN

Title (fr)
IMMUNOGLOBULINE A DEUX DOMAINES VARIABLES ET UTILISATIONS DE CELLE-CI

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Abstract (en)
[origin: WO2007024715A2] The present invention relates to engineered multivalent and multispecific binding proteins, methods of making, and specifically to their uses in the prevention and/or treatment of acute and chronic inflammatory and other diseases.

IPC 8 full level
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Citation (search report)

- [X] US 2002127231 A1 20020912 - SCHNECK JONATHAN [US], et al
- [X] WO 0202781 A1 20020110 - VLAAMS INTERUNIV INST BIOTECH [BE], et al
- [XD] WO 0177342 A1 20011018 - GENENTECH INC [US]
- [X] EP 0517024 A2 19921209 - BEHRINGWERKE AG [DE]
- [X] WO 9509917 A1 19950413 - UNIV CALIFORNIA [US]
- [PX] WO 2006020258 A2 20060223 - IMCLONE SYSTEMS INC [US], et al
- [X] LU DAN ET AL: "Di-diabody: A novel tetravalent bispecific antibody molecule by design.", JOURNAL OF IMMUNOLOGICAL METHODS, vol. 279, no. 1-2, August 2003 (2003-08-01), pages 219 - 232, XP004455322, ISSN: 0022-1759
- [X] PARK S S ET AL: "Generation and characterization of a novel tetravalent bispecific antibody that binds to hepatitis B virus surface antigens", MOLECULAR IMMUNOLOGY, PERGAMON, GB, vol. 37, no. 18, 1 December 2000 (2000-12-01), pages 1123 - 1130, XP002266827, ISSN: 0161-5890
- [T] WU CHENGBIN ET AL: "Simultaneous targeting of multiple disease mediators by a dual-variable-domain immunoglobulin", NATURE BIOTECHNOLOGY, vol. 25, no. 11, November 2007 (2007-11-01), pages 1290 - 1297, XP002542446, ISSN: 1087-0156
- See references of WO 2007024715A2

Citation (examination)

- M. A. AYOUB ET AL: "Preferential Formation of MT1/MT2 Melatonin Receptor Heterodimers with Distinct Ligand Interaction Properties Compared with MT2 Homodimers", MOLECULAR PHARMACOLOGY, vol. 66, no. 2, 1 August 2004 (2004-08-01), pages 312 - 321, XP055031646, ISSN: 0026-895X, DOI: 10.1124/mol.104.000398
- DIGIAMMARINO E L ET AL: "Ligand association rates to the inner-variable-domain of a dual-variable-domain immunoglobulin are significantly impacted by linker design", MABS, LANDES BIOSCIENCE, US, vol. 3, no. 5, 1 September 2011 (2011-09-01), pages 487 - 494, XP009168882, ISSN: 1942-0862
- JAKOB CLARISSA G ET AL: "Structure reveals function of the dual variable domain immunoglobulin (DVD-Ig (TM)) molecule", MABS, vol. 5, no. 3, May 2013 (2013-05-01), pages 358 - 363, ISSN: 1942-0862(print)

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DOCDB simple family (application)

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IL 18954308 A 20080214; IL 23264614 A 20140515; JP 2008527180 A 20060818; KR 20137022517 A 20060818; KR 20147009437 A 20060818;
MY PI2012001921 A 20060818; NO 20081354 A 20080317; NZ 59716806 A 20060818; NZ 61257806 A 20060818; RU 2008110494 A 20060818;
RU 2014110927 A 20140321; SG 2014010029 A 20060818; TW 95130565 A 20060818; ZA 201100659 A 20110126; ZA 201306105 A 20130814