

Title (en)
COILED-COIL FUSION PROTEINS COMPRISING CELL RECEPTOR DOMAINS

Title (de)
ZELLREZEPTORDOMÄNEN UMFASSENDE COILED-COIL-FUSIONSPROTEINE

Title (fr)
PROTEINE HYBRIDE BISPIRALEE AVEC DOMAINES DE RECEPTEURS CELLULAIRES

Publication
EP 1668133 A4 20070829 (EN)

Application
EP 04761779 A 20040902

Priority
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Abstract (en)
[origin: WO2005024035A1] Fusion proteins and coiled-coil induced dimers prepared from both the ectodomains and the kinase domains are disclosed. The receptor domains when presented in the form of a homodimer or heterodimer by virtue of the coiled-coil tag have enhanced ligand binding activity or enhanced kinase activity. The kinetics of binding and the antagonistic potencies of the ectodomain dimers, and their use to alter or inhibit signaling is described. Application of the ectodomain and kinase domain dimers in assays for selecting compounds capable of inhibiting ligand binding and kinase activity, respectively, is described.

IPC 8 full level
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CPC (source: EP)
A61P 1/16 (2017.12); **A61P 11/00** (2017.12); **A61P 13/12** (2017.12); **A61P 19/04** (2017.12); **A61P 35/04** (2017.12); **A61P 43/00** (2017.12); **C07K 14/71** (2013.01); **C12N 15/62** (2013.01); **A61K 38/00** (2013.01); **C07K 2319/73** (2013.01)

Citation (search report)
• [A] WO 9712988 A1 19970410 - PENCE INC [CA], et al
• [XY] DE CRESCENZO G ET AL: "Transforming Growth Factor-beta (TGF-beta) Binding to the Extracellular Domain of the Type II TGF-beta Receptor: Receptor Capture on a Biosensor Surface Using a New Coiled-coil Capture System Demonstrates that Avidity Contributes Significantly to High Affinity Binding", JOURNAL OF MOLECULAR BIOLOGY, LONDON, GB, vol. 328, no. 5, 16 May 2003 (2003-05-16), pages 1173 - 1183, XP004454244, ISSN: 0022-2836
• [Y] DE CRESCENZO GREGORY ET AL: "Real-time monitoring of the interactions of two-stranded de novo designed coiled-coils: Effect of chain length on the kinetic and thermodynamic constants of binding.", BIOCHEMISTRY, vol. 42, no. 6, 18 February 2003 (2003-02-18), pages 1754 - 1763, XP008075446, ISSN: 0006-2960
• [A] ANDERS ROBERT A ET AL: "Chimeric granulocyte/macrophage colony-stimulating factor/transforming growth factor-beta (TGF-beta) receptors define a model system for investigating the role of homomeric and heteromeric receptors in TGF-beta signaling", JOURNAL OF BIOLOGICAL CHEMISTRY, vol. 271, no. 36, 1996, pages 21758 - 21766, XP002432036, ISSN: 0021-9258
• [A] HAYS JOHN L ET AL: "Oligomerization-induced modulation of TPR-MET tyrosine kinase activity.", JOURNAL OF BIOLOGICAL CHEMISTRY, vol. 278, no. 30, 25 July 2003 (2003-07-25), pages 27456 - 27463, XP002432037, ISSN: 0021-9258
• [XY] BEHNCKEN STUART N ET AL: "Growth hormone (GH)-independent dimerization of GH receptor by a leucine zipper results in constitutive activation", JOURNAL OF BIOLOGICAL CHEMISTRY, vol. 275, no. 22, 2 June 2000 (2000-06-02), pages 17000 - 17007, XP002432034, ISSN: 0021-9258
• [XY] COCHRAN ANDREA G ET AL: "Imitation of Escherichia coli aspartate receptor signaling in engineered dimers of the cytoplasmic domain", SCIENCE (WASHINGTON D C), vol. 271, no. 5252, 1996, pages 1113 - 1116, XP002432035, ISSN: 0036-8075
• See references of WO 2005024035A1

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 PL PT RO SE SI SK TR

DOCDB simple family (publication)
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CA 2004001616 W 20040902; AU 2004270774 A 20040902; CA 2536936 A 20040902; EP 04761779 A 20040902; JP 2006525014 A 20040902