Title (en)

COMPOSITIONS AND METHODS FOR TARGETING CD99 IN HAEMATOPOIETIC AND LYMPHOID MALIGNANCIES

Title (de)

ZUSAMMENSETZUNGEN UND VERFAHREN ZUR ABZIELUNG AUF CD99 BEI HÄMATOPOETISCHEN UND LYMPHOIDEN MALIGNOMEN

Title (fr)

COMPOSITIONS ET PROCÉDÉS DE CIBLAGE DE CD99 DANS LES MALIGNITÉS LYMPHOÏDES ET HÉMATOPOÏÉTIQUES

Publication

EP 3271399 A4 20190320 (EN)

Application

EP 16765875 A 20160318

Priority

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- US 2016023303 W 20160318

Abstract (en)

[origin: WO2016149682A2] Provided are compositions and methods for the treatment of hematological conditions, in particular haematopoietic and lymphoid malignancies including CD99+ acute myelogenous leukemias (AML), myelodysplasia syndromes (MDS) and T-cell neoplasms, which comprise one or more antibody that (a) binds to the extracellular domain of CD99, (b) ligates myeloid or lymphoid malignant cell-surface expressed CD99, (c) promotes the capping/clustering/aggregation myeloid or lymphoid malignant cell-surface expressed CD99, and (d) induces apoptosis in and consequent cytotoxicity of antibody-ligated CD99+ myeloid or lymphoid malignant cells. Disclosed methods include methods for identifying patients afflicted with a haematopoietic or lymphoid malignancy that are susceptible to treatment with an anti- CD99 antibody by detecting the elevated expression of CD99 in a tissue sample or myeloid or lymphoid malignant cell from a patient and for treating a patient afflicted with a haematopoietic or lymphoid malignancy exhibiting elevated CD99 gene and or cell-surface protein expression by administering a composition comprising an anti-CD99 antibody, either alone or in combination with one or more additional component such as a mobilizing agent, a transmigration blocking agent, and a chemotherapeutic agent, such as daunorubicin, idarubicin, cytarabine, 5- azacytidine, and decitabine.

IPC 8 full level

A61K 39/00 (2006.01); **A61K 39/395** (2006.01); **A61P 35/02** (2006.01); **C07K 16/28** (2006.01); **C07K 16/30** (2006.01); **C12Q 1/68** (2018.01); **C12Q 1/6886** (2018.01); **G01N 33/574** (2006.01)

CPC (source: EP KR)

A61P 9/00 (2017.12 - EP); **A61P 35/00** (2017.12 - EP); **A61P 35/02** (2017.12 - EP); **C07K 16/2896** (2013.01 - EP KR); **C12Q 1/6886** (2013.01 - EP KR); A61K 2039/505 (2013.01 - EP KR); C07K 2317/24 (2013.01 - EP KR); C07K 2317/73 (2013.01 - EP KR); C07K 2317/75 (2013.01 - EP KR); C12Q 2600/106 (2013.01 - EP KR); C12Q 2600/158 (2013.01 - EP KR)

Citation (search report)

- [XP] WO 2015069935 A1 20150514 - SLOAN KETTERING INST CANCER [US]
- [X] JUNG K C ET AL: "The CD99 signal enhances Fas-mediated apoptosis in the human leukemic cell line, Jurkat", FEBS LETT, ELSEVIER, AMSTERDAM, NL, vol. 554, no. 3, 20 November 2003 (2003-11-20), pages 478 - 484, XP004472972, ISSN: 0014-5793, DOI: 10.1016/S0014-5793(03)01224-9
- [X] STEPHEN S CHUNG ET AL: "CD99 IS A THERAPEUTIC TARGET ON DISEASE STEM CELLS IN ACUTE M yeloid Leukemia and The Myelodysplastic Syndromes", vol. 122, no. 21, 15 November 2013 (2013-11-15), pages 2891, XP009506733, ISSN: 0006-4971, Retrieved from the Internet <URL:http://www.bloodjournal.org/content/122/21/2891>
- [X] STEPHEN S CHUNG ET AL: "3760: CD99 IS A THERAPEUTIC TARGET ON DISEASE INITIATING STEM CELLS IN ACUTE MYELOID LEUKEMIA AND THE MYELODYSPLASTIC SYNDROMES", vol. 124, no. 21, 6 December 2014 (2014-12-06), pages 3760, XP009506732, ISSN: 0006-4971, Retrieved from the Internet <URL:http://www.bloodjournal.org/content/124/21/3760>
- [X] CHUNG ET AL: "CD99 IS A DIAGNOSTIC AND THERAPEUTIC TARGET ON DISEASE STEM C ells in MDS and AML", MOLECULAR CLASSIFICATION OF MELANOMAS AND NEVI USING GENE EXPRESSION MICROARRAY SIGNATURES AND FORMALIN-FIXED AND PARAFFIN-EMBEDDED TISSUE,, vol. 27, no. 2, 1 January 2014 (2014-01-01), pages 343A, XP009506706, ISSN: 1530-0285
- See references of WO 2016149682A2

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