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(56)	References Cited:	WO-A1-2007/120828, SIMON A K ET AL: "DIVERGENT T-CELL CYTOKINE PATTERNS IN INFLAMMATORY ARTHRITIS", PROCEEDINGS NATIONAL ACADEMY OF SCIENCES PNAS, NATIONAL ACADEMY OF SCIENCES, US, vol. 91, 1 August 1994 (1994-08-01), pages 8562- 8566, XP002021361, ISSN: 0027-8424, DOI: 10.1073/PNAS.91.18.8562, US-A1- 2009 215 992, US-A1- 2009 298 096, LUBBERTS ERIK ET AL: "Treatment with a neutralizing anti-murine interleukin-17 antibody after the onset of collagen-induced arthritis reduces joint inflammation, cartilage destruction, and bone erosion", ARTHRITIS & RHEUMATISM, JOHN WILEY & SONS, INC, US, vol. 50, no. 2, 1 February 2004 (2004-02-01), pages 650-659, XP002580291, ISSN: 0004-3591, MIOSSSEC P: "Anti-interleukin 1alpha autoantibodies", ANNALS OF THE RHEUMATIC DISEASES, BRITISH MEDICAL ASSOCIATION, LONDON, GB, vol. 61, no. 7, 1 July 2002 (2002-07-01), pages 577-579, XP002668460, ISSN: 0003-4967, GARRONE P ET AL: "Generation and characterization of a human monoclonal autoantibody that acts as a high affinity

interleukin-1 alpha specific inhibitor", MOLECULAR IMMUNOLOGY, PERGAMON, GB, vol. 33, no. 7-8, 1 May 1996 (1996-05-01), pages 649-658, XP002410040, ISSN: 0161-5890, DOI: 10.1016/0161-5890(96)00017-X, PASCUAL ET AL.: 'Role of interleukin-I (IL-1) in the pathogenesis of systemic onset juvenile idiopathic arthritis and clinical response to IL-1 blockade' JEM vol. 201, no. 9, 02 May 2005, pages 1479 - 1486, XP055070230, G. BUCHAN ET AL.: 'Interleukin-1 and tumour necrosis factor mRNA expression in rheumatoid arthritis: prolonged production of IL-1a" CLIN. EXP. IMMUNOL . vol. 73, 1988, pages 449 - 455, XP055070232, HATA ET AL.: 'Distinct contribution of IL-6, TNF- α , IL-1, and IL-10 to T cell-mediated spontaneous autoimmune arthritis in mice' JOURNAL OF CLINICAL INVESTIGATION vol. 114, no. 4, August 2004, pages 582 - 588, XP055070234, Andrew P. Cairns ET AL: "The CD14+ CD16+ monocyte subset in rheumatoid arthritis and systemic lupus erythematosus", Rheumatology International, vol. 21, no. 5, 1 March 2002 (2002-03-01), pages 189-192, XP055204387, ISSN: 0172-8172, DOI: 10.1007/s00296-001-0165-8, Norikuni Kawanaka ET AL: "CD14+,CD16+ blood monocytes and joint inflammation in rheumatoid arthritis", Arthritis & Rheumatism, vol. 46, no. 10, 1 October 2002 (2002-10-01), pages 2578-2586, XP055204473, ISSN: 0004-3591, DOI: 10.1002/art.10545, Royal College Of Physicians: "RHEUMATOID ARTHRITIS National clinical guideline for management and treatment in adults", , 1 February 2009 (2009-02-01), XP055204522, Retrieved from the Internet: URL:http://www.ncbi.nlm.nih.gov/books/NBK51812/pdf/Bookshelf_NBK51812.pdf [retrieved on 2015-07-24], BAS SYLVETTE ET AL: "CD14 is an acute-phase protein", THE JOURNAL OF IMMUNOLOGY, THE AMERICAN ASSOCIATION OF IMMUNOLOGISTS, US, vol. 172, no. 7, 1 April 2004 (2004-04-01) , pages 4470-4479, XP002764419, ISSN: 0022-1767, WO-A2-2010/030979

Enclosed is a translation of the patent claims in Norwegian. Please note that as per the Norwegian Patents Acts, section 66i the patent will receive protection in Norway only as far as there is agreement between the translation and the language of the application/patent granted at the EPO. In matters concerning the validity of the patent, language of the application/patent granted at the EPO will be used as the basis for the decision. The patent documents published by the EPO are available through Espacenet (<http://worldwide.espacenet.com>) or via the search engine on our website here: <https://search.patentstyret.no/>

Patentkrav

- 1.** Anti-IL-1 α -antistoff for anvendelse i en fremgangsmåte for å redusere leddsmerte og stivhet forbundet med leddgikt hos et humant individ som lider av leddgikt, hvori antistoffet reduserer antall CD14+IL-1 α + perifere blodmonocytter hos individet og lindrer betennelsen betraktelig både i artikulære og ekstraartikulære områder.
- 2.** Anti-IL-1 α -antistoffet for anvendelse ifølge krav 1, hvori anti-IL-1 α -antistoffet er et monoklonalt antistoff.
- 3.** Anti-IL-1 α -antistoffet for anvendelse ifølge krav 2, hvori det monoklonale antistoffet er et IgG1.
- 4.** Anti-IL-1 α -antistoffet for anvendelse ifølge krav 1, hvori anti-IL-1 α -antistoffet formuleres i en farmasøytisk sammensetning egnet for administrering ved injeksjon.
- 5.** Anti-IL-1 α -antistoffet for anvendelse ifølge et hvilket som helst av kravene 1 til 4, hvori leddgikten er reaktiv artritt.