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(54) **Title**: HUMANIZED ANTI CXCR4 ANTIBODIES FOR THE TREATMENT OF CANCER

(57) **Abstract**: The present invention relates to a novel isolated humanized antibody, or the derived compounds or functional fragments of same, capable of binding to CXCR4 but also of inducing conformational changed of the CXCR4 homodimers and/or heterodimers. More particularly, the present invention relates to hz515H7 antibodies, specific to the CXCR4 protein, as well as their use for the treatment of cancer. Pharmaceutical compositions composed of such antibodies and a process for the selection of such antibodies are also covered.