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(54) Title: ANTIGEN BINDING MOLECULES SELECTIVE FOR CELLULAR FIBROBLAST ACTIVATION PROTEIN (FAP)
OVER SOLUBLE FAP

(57) Abstract: The present invention relates to antigen binding molecules that specifically bind cellular bound fibroblast activation protein (cFAP). The antigen binding molecules significantly discriminate between cFAP and one or more soluble variants of fibroblast activation protein (FAP), including the one or more soluble variants of FAP known to be present in body fluids such as blood, plasma and serum. The antigen binding molecules comprise one or more antibodies and/or one or more antibody antigen binding domains or fragments, and, in particular, include one or more camelid single antigen binding domains, i.e. one or more V_HH sequences. The present invention further relates to nucleic acid molecules encoding the antigen binding molecules or a component domain thereof, as well as vectors comprising said nucleic acid molecules. The invention also relates to a host cell comprising the vector(s) of the invention, as well as to methods for the production of an antigen binding molecule of the invention comprising culturing the host cell of the invention under suitable conditions and isolating the antigen binding molecule produced. Furthermore, the present invention relates to an antigen binding molecule obtainable by the method of the invention, to a composition comprising at least one of an antigen binding molecule of the invention, the nucleic acid molecule of the invention, the vector of the invention, the host cell of the invention or the antigen binding molecule produced by the method of the invention. The present invention also relates to the use of an antigen binding molecule of the invention for detecting and targeting cFAP in vivo or in vitro, in particular selectively over one or more soluble variants of FAP, for use as a therapeutic in the treatment of diseases characterized by cFAP or as a diagnostic agent.

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