epitope, each monoclonal antibody is directed against a single determinant on the antigen.

In the present description, the terms polypeptides, polypeptide sequences, amino acid sequences, peptides and proteins attached to antibody compounds or to their sequence are interchangeable.

In one aspect, there is provided a monoclonal antibody, or a functional fragment thereof, capable to inhibit the c-Met dimerization, said antibody or said functional fragment thereof comprising a heavy chain comprising CDR-H1, CDR-H2 and CDR-H3 with respectively the amino acid sequences SEQ ID Nos. 1, 2 and 3; and a light chain comprising CDR-L1, CDR-L2 and CDR-L3 with respectively the amino acid sequences SEQ ID Nos. 5, 6 and 7, wherein said antibody consists of a chimeric, human or humanized antibody and in that said antibody or said functional fragment thereof also comprises a hinge region comprising the amino acid sequence SEQ ID No. 21.

In another aspect, there is provided an isolated nucleic acid, wherein it is chosen from the following nucleic acids:

a) a nucleic acid, DNA or RNA, coding for an antibody, or a functional fragment thereof, as defined above;

b) the complementary nucleic acids of the nucleic acids as defined in b).

In another aspect, there is provided an isolated nucleic acid, wherein it is chosen from a nucleic acid, DNA or RNA, coding for an antibody, or a functional fragment thereof, as defined above and wherein said nucleic sequence coding for the hinge region of said antibody comprises or has a sequence selected from the group consisting of the sequences SEQ ID Nos. 29 or 30.

In another aspect, there is provided a vector comprising a nucleic acid as defined above.

In another aspect, there is provided an isolated host cell comprising a vector as defined above.

In another aspect, there is provided a transgenic animal with the exception of man comprising at least one cell transformed by a vector as defined above.

In another aspect, there is provided a process for production of an antibody, or a functional fragment thereof, as defined above, wherein said process comprises the following stages:

a) culture in a medium and appropriate culture conditions of a cell as defined above; and
b) the recovery of said antibody, or functional fragment thereof, thus produced starting from the culture medium or said culture cells.

In another aspect, there is provided the antibody, or a functional fragment thereof, as defined above as a medicament.

In another aspect, there is provided a composition comprising by way of active principle a compound consisting of an antibody, or a functional fragment thereof, as defined above.

In another aspect, there is provided the use of an antibody, or a functional fragment thereof, as defined above or of a composition as defined above for the preparation of a medicament intended to inhibit the growth and/or the proliferation of tumor cells.

In another aspect, there is provided the use of an antibody, or a functional fragment thereof, as defined above or of a composition as defined above, for the preparation of a medicament intended for the prevention or for the treatment of cancer.

In another aspect, there is provided a method of *in vitro* diagnosis of illnesses induced by an overexpression or an underexpression of the c-Met receptor starting from a biological sample in which the abnormal presence of c-Met is suspected, wherein said method comprises a step wherein said biological sample is contacted with an antibody as defined above and, or a functional fragment thereof.

The invention relates to a monoclonal antibody, or a divalent functional fragment or derivative thereof, capable to inhibit the c-Met dimerization and comprising a heavy chain comprising CDR-H1, CDR-H2 and CDR-H3 with respectively the amino acid sequences SEQ ID Nos. 1, 2 and 3 or a sequence having at least 80 % identity after optimum alignment with sequences SEQ ID Nos. 1, 2 and 3; and a light chain comprising CDR-L1, CDR-L2 and CDR-L3 with respectively the amino acid sequences SEQ ID Nos. 5, 6 and 7 or a sequence having at least 80% identity after optimum alignment with sequences SEQ ID Nos. 5, 6 or 7, said antibody being further characterized in that it also comprises a hinge region comprising the amino acid sequence SEQ ID No. 56.

More particularly, the invention relates to a monoclonal antibody, or a divalent functional fragment or derivative thereof, as above described characterized in that it also comprises a hinge region comprising the amino acid sequence SEQ ID No. 57.

In other words, the invention relates to a monoclonal antibody, or a divalent functional fragment or derivative thereof, capable to inhibit the c-Met dimerization and comprising a heavy chain comprising CDR-H1, CDR-H2 and CDR-H3 with respectively the amino acid sequences SEQ ID Nos. 1, 2 and 3 or a sequence having at least 80% identity after optimum alignment with sequences SEQ ID Nos. 1, 2 and 3; and a light chain comprising CDR-L1, CDR-L2 and CDR-L3 with respectively the amino acid sequences SEQ ID Nos. 5, 6 and 7 or a sequence having at least 80% identity after optimum alignment with sequences SEQ ID Nos. 5, 6 or 7, said antibody being further characterized in that it also comprises a hinge region comprising the amino acid sequence SEQ ID No. 57.

More particularly, the invention relates to a monoclonal antibody, or a divalent functional fragment or derivative thereof, as above described characterized in that it also comprises a hinge region comprising the amino acid sequence SEQ ID No. 21.