Claims

1. Use of a FGF-R4 antagonist antibody for the manufacture of a medicament for treatment of hepatocarcinoma or of any other type of hepatic cancer.

~~2. Use of a FGF-R4 antagonist antibody according to claim 1 for the manufacture of a medicament for treatment of pancreatic cancers.~~

~~3.~~2. Use of a FGF-R4 antagonist antibody according to claim 1 ~~or 2~~, wherein the antibody can bind both human FGF-R4 and murine FGF-R4.

~~4.~~3. Use of a FGF-R4 antagonist antibody according to claim 1, or 2 ~~or 3~~, wherein the antibody comprises the CDRs of sequence SEQ ID Nos. 9, 10, 11, 12, 13 and 14; or 73, 74, 75, 78, 79 and 80; or 83, 84, 85, 88, 89 and 90; or 93, 94, 95, 98, 99 and 100; or 103, 104, 105, 108, 109 and 110, wherein one of the CDRs may differ by one or two amino acids compared with at least one of the sequences mentioned above, provided that the antibody keeps its binding specificity.

~~5.~~4. Use of a FGF-R4 antagonist antibody according to any one of the preceding claims wherein the variable region of the heavy chain of the antibody comprises a nucleotide sequence having at least 80% identity with the sequence SEQ ID No. 5, 76, 86, 96 or 106 and wherein the variable region of the light chain of the antibody comprises a nucleotide sequence having at least 80% identity with the sequence SEQ ID No. 7, 71, 81, 91 or 101, provided that the antibody keeps its binding specificity.

~~6.~~5. Use of a FGF-R4 antagonist antibody according to any one of the preceding claims wherein the sequence of the antibody comprises the polypeptide sequences SEQ ID Nos. 2 and 4; or 6 and 8; or 72 and 77; or 82 and 87; or 92 and 97; or 102 and 107 or sequences corresponding to these sequences, having at least 80% identity therewith, provided that the antibody keeps its binding specificity.

~~7.~~6. Use of a FGF-R4 antagonist antibody according to any one of the preceding claims, wherein the antibody affinity for FGF-R4 is 10 times greater than the affinity for the other FGF receptors.

~~8.~~7. Use of a FGF-R4 antagonist antibody according to any one of the preceding claims, wherein the antibody is a humanized antibody.

~~9.~~8. Use of a FGF-R4 antagonist antibody according to claim ~~8~~7, wherein the antibody comprises a variable light chain having at least 80% identity with one of the polypeptide sequences SEQ ID No. 30 or 32 and a variable heavy chain having at least 80% identity with a sequence SEQ ID No. 34, 36 or 38.

~~10.~~9. Use of a FGF-R4 antagonist antibody according to any one of the preceding claims, wherein the antibody is conjugated to a cytotoxic agent.

~~11. Pharmaceutical composition comprising an antagonist according to any one of claims 1 to 18 and excipients.~~

~~12. FGF-R4 antagonist antibody comprising the CDRs of sequence SEQ ID Nos. 9, 10, 11, 12, 13 and 14; or 73, 74, 75, 78, 79 and 80; or 83, 84, 85, 88, 89 and 90; or 93, 94, 95, 98, 99 and 100; or 103, 104, 105, 108, 109 and 110, where one of the CDRs may differ by one or two amino acids compared with at least one of the sequences mentioned above, provided that the antibody keeps its binding specificity.~~

~~13. FGF-R4 antagonist antibody according to claim 12, wherein the variable region of its heavy chain comprises a nucleotide sequence having at least 80% identity with the sequence SEQ ID No. 5, 76, 86, 96 or 106 and wherein the variable region of its light chain comprises a nucleotide sequence having at least 80% identity with the sequence SEQ ID No. 7, 71, 81, 91 or 101, provided that the antibody keeps its binding specificity.~~

~~14. FGF-R4 antagonist antibody according to claim 12 or 13, wherein the sequence comprises the polypeptide sequences SEQ ID Nos. 2 and 4; or 6~~

~~and 8; or 72 and 77; or 82 and 87; or 92 and 97; or 102 and 107 or sequences, corresponding to these sequences having at least 80% identity therewith, provided that the antibody keeps its binding specificity.~~

~~15. FGF-R4 antagonist antibody comprising a variable light chain having at least 80% identity with one of the polypeptide sequences SEQ ID No. 30 or 32 and a variable heavy chain having at least 80% identity with a sequence SEQ ID No. 34, 36 or 38.~~

~~16. Cell line producing antibodies according to claims 12 to 15.~~

~~17. Method of producing an antibody according to any one of claims 12 to 15, characterized in that it comprises culturing a cell line according to claim 16.~~

~~18. Drug comprising an antagonist according to any one of claims 12 to 15.~~

~~19. Polynucleotide characterized in that it has a sequence having at least 80% identity with one of the sequences SEQ ID No. 1, 3, 5, 7, 29, 31, 33, 35, or 37, 71, 76, 81, 86, 91, 96, 101 or 106, provided that the polypeptide which it encodes keeps the binding specificity.~~

~~20. Polynucleotide according to claim 19 encoding a polypeptide having at least 80% identity with one of the sequences SEQ ID No. 2, 4, 6, 8, 9, 10, 11, 12, 13, 14, 30, 32, 34, 36, 38, 72, 73, 74, 75, 77, 78, 79, 80, 82, 83, 84, 85, 87, 88, 89, 90, 92, 93, 94, 95, 97, 98, 99, 100, 103, 104, 105, 107, 108, 109 or 110, provided that the polypeptide which it encodes keeps the binding specificity.~~

~~21. Recombinant vector comprising a nucleic acid according to either one of claims 19 and 20.~~

~~22. Host cell comprising a vector according to claim 21.~~

~~23. Pharmaceutical composition comprising an antibody according to any one of claims 12 to 15 and excipients.~~