WHAT IS CLAIMED IS:

1. A method of treating a human having a cancer, wherein the human has a fibroblast growth factor-2 (FGF-2) plasma concentration of at least 6 pg/ml, the method comprising:

administering to the human a soluble Fibroblast Growth Factor Receptor 1 (FGFR1) fusion protein at a dose of at least about 2 mg/kg body weight, wherein the fusion protein comprises an extracellular domain of an FGFR1 polypeptide linked to a fusion partner.

2. The method of claim 1, wherein the fusion partner is a Fc polypeptide.

3. The method of claim 1 or 2**Error! Reference source not found.**, wherein the FGFR1 extracellular domain comprises the amino acid sequence of SEQ ID NO:5.

4. The method of claim 1, 2, or 3, wherein the soluble FGFR1 fusion protein comprises the amino acid sequence of SEQ ID NO:8.

5. The method of any one of claims 1-4, wherein the soluble FGFR1 fusion protein is administered at a dose of about 2 mg/kg body weight to about 20 mg/kg body weight, such as a dose of about 8 mg/kg body weight to about 16 mg/kg body weight.

6. The method of claim 5**Error! Reference source not found.**, wherein the soluble FGFR1 fusion protein is administered at a dose of about 8 mg/kg body weight.

7. The method of claim 5**Error! Reference source not found.**, wherein the soluble FGFR1 fusion protein is administered at a dose of about 16 mg/kg body weight.

8. The method of any one of claims 1-7, wherein the cancer is prostate cancer, breast cancer, colorectal cancer, lung cancer, endometrial cancer, head and neck cancer, laryngeal cancer, liver cancer, renal cancer, glioblastoma, or pancreatic cancer.

9. The method of any one of claims 1-8, wherein the human has an FGF-2 plasma concentration of at least 10 pg/ml prior to the administration of the soluble FGFR1 fusion protein.

10. The method of any one of claims 1-9, wherein the soluble FGFR1 fusion protein is administered in combination with a chemotherapeutic agent or a VEGF antagonist.

11. A method of treating a human having a cancer, wherein the cancer is characterized by a Fibroblast Growth Factor Receptor 2 (FGFR2) having a ligand-dependent activating mutation, the method comprising:

administering to the human a soluble Fibroblast Growth Factor Receptor 1 (FGFR1) fusion protein at a dose of at least about 2 mg/kg body weight, wherein the fusion protein comprises an extracellular domain of an FGFR1 polypeptide linked to a fusion partner.

12. The method of claim 11, wherein the fusion partner is a Fc polypeptide.

13. The method of claim 11 or 12, wherein the FGFR1 extracellular domain comprises the amino acid sequence of SEQ ID NO:5.

14. The method of claim 11 or 12, wherein the soluble FGFR1 fusion protein comprises the amino acid sequence of SEQ ID NO:8.

15. The method of any one of claims 11-14, wherein the soluble FGFR1 fusion protein is administered at a dose of about 2 mg/kg body weight to about 20 mg/kg body weight, such as at a dose of about 8 mg/kg body weight to about 16 mg/kg body weight.

16. The method of claim 15, wherein the soluble FGFR1 fusion protein is administered at a dose of about 8 mg/kg body weight.

17. The method of claim 15, wherein the soluble FGFR1 fusion protein is administered at a dose of about 16 mg/kg body weight.

18. The method of any one of claims 11-17, wherein the cancer is prostate cancer, breast cancer, colorectal cancer, lung cancer, endometrial cancer, head and neck cancer, laryngeal cancer, liver cancer, renal cancer glioblastoma or pancreatic cancer.

19. The method of any one of claims 11-18, wherein the human has an FGF-2 plasma concentration of at least 10 pg/ml prior to the administration of the soluble FGFR1 fusion protein.

20. The method of claim 11, wherein the soluble FGFR1 fusion protein is administered in combination with a chemotherapeutic agent or a VEGF antagonist.

21. A composition comprising soluble Fibroblast Growth Factor Receptor 1 (FGFR1) fusion protein for use in the treatment of cancer, wherein the human has a fibroblast growth factor-2 (FGF-2) plasma concentration of at least 6 pg/ml, wherein the composition is administered at a dose of at least about 2 mg/kg body weight, and wherein the fusion protein comprises an extracellular domain of an FGFR1 polypeptide linked to a fusion partner.

CLAIMS

1. Use of a soluble Fibroblast Growth Factor Receptor 1 (FGFR1) fusion protein in the manufacture of a medicament for the treatment of cancer in a human; wherein the fusion protein comprises an extracellular domain of an FGFR1 polypeptide linked to a fusion partner; wherein the human has a fibroblast growth factor-2 (FGF-2) plasma concentration of at least 6 pg/ml, wherein the fusion protein is to be administered at a dose of at least about 2 mg/kg body weight, and wherein the FGFR1 fusion protein reduces the FGF-2 plasma concentration of the human below 4 pg/ml for at least one week.

2. Use of a soluble Fibroblast Growth Factor Receptor 1 (FGFR1) fusion protein in the manufacture of a medicament for the treatment of cancer in a human; wherein the fusion protein comprises an extracellular domain of an FGFR1 polypeptide linked to a fusion partner; wherein the cancer is characterized by a Fibroblast Growth Factor Receptor 2 (FGFR2) having a ligand-dependent activating mutation, wherein the fusion protein is to be administered at a dose of at least about 2 mg/kg body weight, and wherein the FGFR1 fusion protein reduces a FGF-2 plasma concentration of the human below 4 pg/ml for at least one week.

3. The use according to claim 1 or 2, wherein the fusion partner is Fc polypeptide.

4. The use according to claim 1, 2 or 3, wherein the FGFR1 extracellular domain comprises the amino acid sequence of SEQ ID NO: 5.

5. The use according to any one of the preceding claims, wherein the soluble FGFR1 fusion protein comprises the amino acid sequence of SEQ ID NO: 8.

6. The use according to any one of the preceding claims, wherein the soluble FGFR1 fusion protein is to be administered at a dose of about 2 mg/kg body weight to about 20 mg/kg body weight, such as a dose of about 8 mg/kg body weight to about 16 mg/kg body weight.

7. The use according to claim 6, wherein the soluble FGFR1 fusion protein is to be administered at a dose of about 8 mg/kg body weight.

8. The use according to claim 6, wherein the soluble FGFR1 fusion protein is to be administered at a dose of about 16 mg/kg body weight.

9. The use according to any one of the preceding claims, wherein the cancer is prostate cancer, breast cancer, colorectal cancer, lung cancer, endometrial cancer, head and neck cancer, laryngeal cancer, liver cancer, renal cancer, glioblastoma, or pancreatic cancer.

10. The use according to any one of the preceding claims, wherein the human has an FGF-2 plasma concentration of at least 10 pg/ml prior to the administration of the soluble FGFR1 fusion protein.

11. The use according to any one of the preceding claims, wherein the soluble FGFR1 fusion protein is to be administered in combination with a chemotherapeutic agent or a VEGF antagonist.

12. The use according to any one of the preceding claims, wherein the fusion protein is in the form of a pharmaceutical composition.

13. The use according to any one of the preceding claims, wherein the FGF-2 plasma concentration is determined by an electrochemiluminescence assay, wherein the electrochemiluminescence assay utilizes an anti-FGF-2 antibody as the primary antibody and a ruthenium metal chelate anti-human growth factor antibody blend as the secondary antibody.