

CLAIMS

1. A recombinant binding protein comprising a first, a second, a third, and a fourth ankyrin repeat domain, wherein said first ankyrin repeat domain has binding specificity for vascular endothelial growth factor (VEGF-A) and comprises an amino acid sequence that has at least 90% amino acid sequence identity with the amino acid sequence of SEQ ID NO:18, wherein said second ankyrin repeat domain has binding specificity for hepatocyte growth factor (HGF) and comprises an amino acid sequence that has at least 90% amino acid sequence identity with the amino acid sequence of SEQ ID NO:26, and wherein said third and fourth ankyrin repeat domains each have binding specificity for serum albumin and comprise an amino acid sequence that has at least 90% amino acid sequence identity with the amino acid sequence of SEQ ID NO:50,

wherein said first, second, third and fourth ankyrin repeat domains are in the order third-second-first-fourth from N terminus to C terminus,

and wherein said recombinant binding protein is capable of binding to HGF, VEGF-A, and serum albumin simultaneously.

2. The binding protein of claim 1, wherein said binding protein competes for binding to VEGF-A with a binding protein comprising the amino acid sequence of SEQ ID NO: 134.

3. The binding protein of any of claims 1 to 2, wherein said binding protein competes for binding to HGF with a binding protein comprising the amino acid sequence of SEQ ID NO: 134.

4. The binding protein of any of claims 1 to 3, wherein said first ankyrin repeat domain comprises an amino acid sequence that has at least 95% amino acid sequence identity with the amino acid sequence of SEQ ID NO:18, wherein said second ankyrin repeat domain comprises an amino acid sequence that has at least 95% amino acid sequence identity with the amino acid sequence of SEQ ID NO:26, and wherein said third and fourth ankyrin repeat domains each comprise an amino acid sequence that has at least 95% amino acid sequence identity with the amino acid sequence of SEQ ID NO:50.

5. The binding protein of any of claims 1 to 4, wherein said first ankyrin repeat domain comprises the amino acid sequence of SEQ ID NO:18.

5 6. The binding protein of any of claims 1 to 5, wherein said second ankyrin repeat domain comprises the amino acid sequence of SEQ ID NO:26.

7. The binding protein of any of claims 1 to 6, wherein said third or fourth ankyrin repeat domain comprises the amino acid sequence of SEQ ID NO:50.

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8. A recombinant binding protein comprising an amino acid sequence that has at least 90% amino acid sequence identity with the amino acid sequence of SEQ ID NO: 134, wherein the binding protein has binding specificity for HGF, VEGF-A, and serum albumin,

and wherein said recombinant binding protein is capable of binding to HGF, VEGF-

15 A, and serum albumin simultaneously.

9. The binding protein of claim 8, wherein said binding protein comprises an amino acid sequence that has at least 95% amino acid sequence identity with the amino acid sequence of SEQ ID NO: 134.

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10. The binding protein of claim 8, wherein said binding protein comprises the amino acid sequence of SEQ ID NO: 134.

11. A recombinant binding protein comprising a first, a second, a third, and a fourth
25 designed ankyrin repeat domain, wherein said first ankyrin repeat domain has binding specificity for human VEGF-A and comprises an amino acid sequence that has at least 90% amino acid sequence identity with the amino acid sequence of SEQ ID NO:18, wherein said second ankyrin repeat domain has binding specificity for human HGF and comprises an amino acid sequence that has at least 90% amino acid sequence identity
30 with the amino acid sequence of SEQ ID NO:26, and wherein said third and fourth ankyrin repeat domains each have binding specificity for human serum albumin and comprise an

amino acid sequence that has at least 90% amino acid sequence identity with the amino acid sequence of SEQ ID NO:50,

wherein said first, second, third and fourth ankyrin repeat domains are in the order third-second-first-fourth from N terminus to C terminus,

5 and wherein said recombinant binding protein is capable of binding to HGF, VEGF-A, and serum albumin simultaneously.

12. The binding protein of claim 11, wherein said first ankyrin repeat domain comprises the amino acid sequence of SEQ ID NO:18, wherein said second ankyrin repeat domain
10 comprises the amino acid sequence of SEQ ID NO:26, and wherein said third and fourth ankyrin repeat domains each comprise the amino acid sequence of SEQ ID NO:50.

13. The binding protein of claim 11, wherein said binding protein comprises an amino acid sequence that has at least 95% amino acid sequence identity with the amino acid
15 sequence of SEQ ID NO: 134.

14. The binding protein of claim 11, wherein said binding protein comprises the amino acid sequence of SEQ ID NO: 134.

20 15. A nucleic acid encoding the binding protein of any of claims 1 to 14.

16. A pharmaceutical composition comprising the binding protein of any of claims 1 to 14 or the nucleic acid of claim 15, and a pharmaceutically acceptable carrier and/or diluent.

25 17. The binding protein of any of claims 1 to 14 for use in the treatment of a medical condition, wherein the medical condition is a neoplastic disease or pathological angiogenesis.

18. The binding protein of any of claims 1 to 14 for use in the treatment of cancer.

19. The binding protein of any of claims 1 to 14 for use in the treatment of multiple myeloma.

20. The binding protein of any of claims 1 to 14 for use in the treatment of renal cancer or
5 gastric cancer.

21. The use of the binding protein of any of claims 1 to 14 in the manufacture of a medicament for the treatment of a medical condition, wherein the medical condition is a neoplastic disease or pathological angiogenesis.