CLAIMS

1. A recombinant protein comprising:

   a first ankyrin repeat domain that specifically binds serum albumin, a second ankyrin repeat domain that specifically binds fibroblast activation protein (FAP), a third ankyrin repeat domain that specifically binds CD40, and a fourth ankyrin repeat domain that specifically binds CD40,

   wherein said ankyrin repeat domains are arranged, from the N-terminus to the C-terminus, according to the following formula: (serum albumin binding domain) – (FAP-binding domain) – (CD40 binding domain) – (CD40 binding domain).

2. The recombinant protein of claim 1, wherein said FAP binding domain comprises an amino acid sequence that is at least 90% identical to SEQ ID NO: 2, preferably wherein said FAP binding domain comprises the amino acid sequence of SEQ ID NO: 2 or of SEQ ID NO: 8.

3. The recombinant protein of claim 1 or 2, wherein each of said CD40 binding domains independently comprises an amino acid sequence that is at least 90% identical to SEQ ID NO: 3, preferably wherein each of said CD40 binding domains comprises the amino acid sequence of SEQ ID NO: 3.

4. The recombinant protein of any one of claims 1 to 3, wherein each of said CD40 binding domains independently comprises Q at position 8, L at position 15, R at position 143, and Q at position 147, wherein the position numbers correspond to the positions in SEQ ID NO: 3.

5. The recombinant protein of any one of claims 1 to 4, wherein said serum albumin binding domain comprises an amino acid sequence that is at least 90% identical to SEQ ID NO: 1, preferably wherein said serum albumin binding domain comprises the amino acid sequence of SEQ ID NO: 1.

6. The recombinant protein of any one of claims 1 to 5, comprising the following formula, from the N-terminus to C-terminus: (serum albumin binding domain) – (linker) – (FAP-binding domain) – (linker) – (CD40 binding domain) – (linker) – (CD40 binding domain), wherein the linker comprises the amino acid sequence of SEQ ID NO: 4.

7. The recombinant protein of any one of claims 1 to 6, wherein said FAP binding domain binds human FAP with a K_D value of or below 100 nM, and/or wherein each of said CD40 binding domains binds human CD40 with a K_D value of or below 100 nM, and/or wherein said serum albumin binding domain binds human serum albumin with a K_D value of or below 100 nM.

8. A recombinant protein comprising an amino acid sequence that is at least 90% identical to SEQ ID NO: 5, wherein said recombinant protein binds human FAP, human CD40, and human serum albumin with a K_D value of or below 100 nM, preferably wherein said recombinant protein comprises the amino acid sequence of SEQ ID NO: 5 or SEQ ID NO: 6.

9. The recombinant protein of any one of claims 1 to 8, wherein said protein has a half maximal effective concentration (EC_{50}) of from about 0.01 nM to about 10 nM, as assessed by an in vitro human B cell activation assay.

10. The recombinant protein of any one of claims 1 to 9, wherein binding of said protein to FAP does not inhibit the prolyl endopeptidase activity of FAP by more than 25%.

11. A nucleic acid encoding the recombinant protein of any one of claims 1 to 10 or an ankyrin repeat domain as defined in any one of claims 1 to 10.

12. A pharmaceutical composition comprising the recombinant protein of any one of claims 1 to 10 or the nucleic acid of claim 11, and optionally a pharmaceutically acceptable carrier or excipient.

13. A host cell comprising the nucleic acid of claim 11.

14. A method for producing the recombinant protein of any one of claims 1 to 10, comprising the step of culturing the host cell of claim 13 under conditions wherein said recombinant protein is expressed.

15. Use of the recombinant protein of any one of claims 1 to 10, the nucleic acid of claim 11, or the pharmaceutical composition of claim 12, in the manufacture of a medicament for treating a medical condition in a subject, preferably a human, in need thereof, preferably wherein said medical condition is cancer, and preferably wherein said cancer is a solid tumor.