Claims

We claim:

1. A protein comprising an amino acid sequence that is at least 90% identical to the amino acid sequence of SEQ ID NO: 51 or an amino acid sequence having 1, 2, 3, 4, 5, 6, 7, or 8 substitutions as compared to the amino acid sequence of SEQ ID NO: 51.
2. The protein of claim 1, wherein the protein comprises an amino acid sequence that is at least 90% identical to the amino acid sequence of SEQ ID NO: 51.
3. The protein of claim 1, wherein the protein is at least 95%, 97%, 98%, or 99% identical to the amino acid sequence of SEQ ID NO: 51.
4. The protein of claim 1, wherein the protein comprises an amino acid sequence that has 1, 2, 3, 4, 5, 6, 7, or 8 substitutions when compared to the amino acid sequence of SEQ ID NO: 51.
5. The protein of claim 1, wherein the protein comprises an amino acid sequence selected from the group consisting of SEQ ID NOs: 51-53.
6. An isolated polynucleotide encoding the protein of claim 1.

7. A vector comprising the polynucleotide of claim 6.
8. An isolated host cell comprising the vector of claim 7.
9. A method of producing a protein, comprising culturing the isolated host cell of claim 8 under conditions such that the protein is expressed, and purifying the protein.
10. A pharmaceutical composition comprising the protein of claim 1 and a pharmaceutically acceptable carrier.
11. A method of detecting the presence of human serum albumin in a biological sample comprising contacting the biological sample with the protein of claim 1 and evaluating the binding of the biological sample to the protein.
12. A kit comprising the protein of claim 1.
13. A molecule comprising a first domain and a second domain, wherein the first domain comprises the protein of claim 1 and the second domain is a molecule that binds to a target protein other than human serum albumin.
14. The protein of claim 1, wherein the protein is at least 95% identical to the amino acid sequence of SEQ ID NO: 51.

15. The protein of claim 1, wherein the protein is at least 97% identical to the amino acid sequence of SEQ ID NO: 51.

16. The protein of claim 1, wherein the protein is at least 98% identical to the amino acid sequence of SEQ ID NO: 51.

17. The protein of claim 1, wherein the protein is at least 99% identical to the amino acid sequence of SEQ ID NO: 51.

18. The protein of claim 1, wherein the protein comprises the amino acid sequence of SEQ ID NO: 51.

19. The protein of claim 1, wherein the protein comprises the amino acid sequence of SEQ ID NO: 52.

20. The protein of claim 1, wherein the protein comprises the amino acid sequence of SEQ ID NO: 53.