

WHAT IS CLAIMED IS:

- 1 1. An antibody that specifically binds human $\alpha\text{v}\beta 8$, wherein the antibody
2 comprises:
3 a heavy chain complementary determining region (HCDR) 1 comprising
4 TFTDYSMH (SEQ ID NO:1) or TFTKYSMH (SEQ ID NO:2);
5 a HCDR 2 comprising RINTETGEPTFADDFRG (SEQ ID NO:3);
6 a HCDR 3 comprising FYYGRD(S/T) (SEQ ID NO:4);
7 a light chain complementary determining region (LCDR) 1 comprising
8 KSSQSLLNSRSRKNYLA (SEQ ID NO:5) or KSSQSLLHSRSRKNYLA (SEQ ID NO:6);
9 a LCDR2 comprising WASTRES (SEQ ID NO:7); and
10 a LCDR3 comprising KQSYNLLS (SEQ ID NO:8), wherein the antibody
11 comprises one or none of SEQ ID NO:1 and SEQ ID NO:5, but not both of SEQ ID NO:1 and
12 SEQ ID NO:5.
- 1 2. The antibody of claim 1, wherein the HCDR1 comprises SEQ ID NO:2
2 and the LCDR1 comprises SEQ ID NO:6.
- 1 3. The antibody of claim 1, wherein the HCDR1 comprises SEQ ID NO:1
2 and the LCDR1 comprises SEQ ID NO:6.
- 1 4. The antibody of claim 1, wherein the HCDR1 comprises SEQ ID NO:2
2 and the LCDR1 comprises SEQ ID NO:5.
- 1 5. The antibody of claim 1, comprising a heavy chain variable region
2 comprising SEQ ID NO:9.
- 1 6. The antibody of claim 1 or 5, comprising a light chain variable region
2 comprising SEQ ID NO: 10.
- 1 7. The antibody of any of claims 1-6, wherein the antibody is humanized.
- 1 8. The antibody of any of claims 1-6, wherein the antibody is linked to a
2 detectable label.

1 9. An antibody that binds human $\alpha\text{v}\beta 8$ and $\alpha\text{v}\beta 6$, wherein the antibody
 2 comprises:
 3 a heavy chain complementary determining region (HCDR) 1 comprising
 4 TFTDYSMH (SEQ ID NO:1) or TFTKYSMH (SEQ ID NO:2);
 5 a HCDR 2 comprising RINTETGEPTFADDFRG (SEQ ID NO:3);
 6 a HCDR 3 comprising FYYGRD(S/T) (SEQ ID NO:4);
 7 a light chain complementary determining region (LCDR) 1 comprising
 8 KSSQSLLRRGDLATIHGNALA (SEQ ID NO:11);
 9 a LCDR2 comprising WASTRES (SEQ ID NO:7); and
 10 a LCDR3 comprising KQSYNLLS (SEQ ID NO:8).

1 10. The antibody of claim 9, comprising a heavy chain variable region
 2 comprising SEQ ID NO:9.

1 11. The antibody of claim 9 or 10, comprising a light chain variable region
 2 comprising SEQ ID NO:12.

1 12. The antibody of claim 9, wherein the antibody is humanized.

1 13. The antibody of claim 9, wherein the antibody is linked to a detectable
 2 label.

1 14. An antibody that binds human $\alpha\text{v}\beta 8$ and $\alpha\text{v}\beta 6$, wherein the antibody
 2 comprises:
 3 a heavy chain complementary determining region (HCDR) 1 comprising
 4 TFTKYSMH (SEQ ID NO:2);
 5 a HCDR 2 comprising RINTETGEPTFADDFRG (SEQ ID NO:3);
 6 a HCDR 3 comprising FYYGRD(S/T) (SEQ ID NO:4);
 7 a light chain complementary determining region (LCDR) 1 comprising a sequence
 8 selected from the group consisting of SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID
 9 NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ
 10 ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54,
 11 SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, and SEQ ID NO:59;

12 a LCDR2 comprising WASTRES (SEQ ID NO:7); and

13 a LCDR3 comprising KQSYNLLS (SEQ ID NO:8).

1 15. The antibody of claim 14, wherein the HCDR1 comprises SEQ ID NO:2
2 and the LCDR1 comprises SEQ ID NO:40.

1 16. The antibody of claim 14, comprising a heavy chain variable region
2 comprising SEQ ID NO:9.

1 17. The antibody of claim 14 or 16, comprising a light chain variable region
2 comprising SEQ ID NO:39.

1 18. The antibody of claim 14, wherein the antibody is humanized.

1 19. The antibody of claim 14, wherein the antibody is linked to a detectable
2 label.

1 20. A method of enhancing an immune response to cancer in a human
2 individual, the method comprising administering a sufficient amount of the antibody of any of
3 claims 1-19 to the individual, thereby enhancing an immune response to the cancer.

1 21. The method of claim 20, wherein the cancer is lung cancer.

1 22. The method of claim 20, wherein the cancer is a metastatic cancer.

1 23. The method of claim 20, wherein the cancer is a primary cancer.

1 24. A method of enhancing an immune response to a viral infection in a
2 human individual, the method comprising administering a sufficient amount of the antibody of
3 any of claims 1-19 to the individual, thereby enhancing an immune response to the viral
4 infection.

1 25. The method of claim 24, wherein the viral infection is a hepatitis infection.

1 26. The method of claim 25, wherein the viral infection is a hepatitis B
2 infection.

1 27. A pharmaceutical composition comprising the antibody of any of claims
2 1-19 in a pharmaceutically acceptable excipient.

1 28. A method of detecting the presence, absence, or quantity of human in a
2 sample, the method comprising,
3 contacting the antibody of any of claims 1-19 to the sample, and
4 detecting or quantifying binding of the antibody to the sample.