

CLAIMS

[Claim 1]

An anti-human integrin β_7 antibody comprising:

a heavy chain variable region comprising

5 heavy-chain CDR1 having the amino acid sequence set
 forth in SEQ ID NO: 1,

 heavy-chain CDR2 having the amino acid sequence set
 forth in SEQ ID NO: 2, and

 heavy-chain CDR3 having the amino acid sequence set
10 forth in SEQ ID NO: 3; and

a light chain variable region comprising

 light-chain CDR1 having the amino acid sequence set
 forth in SEQ ID NO: 6,

 light-chain CDR2 having the amino acid sequence set
15 forth in SEQ ID NO: 7, and

 light-chain CDR3 having the amino acid sequence set
 forth in SEQ ID NO: 8.

[Claim 2]

20 An antibody according to claim 1, the antibody comprising:

a heavy chain variable region having the amino acid sequence set
forth in SEQ ID NO: 4;

and

a light chain variable region having the amino acid sequence set
25 forth in SEQ ID NO: 9.

[Claim 3]

An antibody according to claim 1 or 2, which is a multispecific antibody.

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[Claim 4]

A chimeric antigen receptor comprising an antigen recognition site of an antibody according to any one of claims 1 to 3.

10 [Claim 5]

A cell expressing the chimeric antigen receptor of claim 4.

[Claim 6]

15 A polynucleotide, which encodes the chimeric antigen receptor of claim 4.

[Claim 7]

A vector comprising the polynucleotide of claim 6.

20 [Claim 8]

A cell, which harbors the polynucleotide of claim 6 or the vector of claim 7.

[Claim 9]

25 A cell according to claim 5 or 8, which is a chimeric antigen

receptor T cell or NK cell.

[Claim 10]

A pharmaceutical composition for the treatment of multiple myeloma
5 comprising the antibody according to any one of claims 1 to 3.

[Claim 11]

A pharmaceutical composition for the treatment of multiple myeloma
comprising the chimeric antigen receptor T cell or NK cell of
10 claim 9.

[Claim 12]

The pharmaceutical composition of claim 11, which is characterised
in that said chimeric antigen receptor T cell or NK cell is
15 administered at 10^4 cells / kg to 10^9 cells / kg per 1 days.