Claims

1. An antibody that specifically binds to mesothelin (MSLN), comprising:

a light chain variable domain (VL domain) consisting of a sequence having an amino acid sequence of SEQ ID NO: 1; and

a heavy chain variable domain (VH domain) consisting of a sequence having an amino acid sequence of any one of SEQ ID NOs: 3 to 5;

wherein the antibody is a humanized antibody.

2. The antibody of claim 1, wherein the MSLN is human MSLN.

3. The antibody of claim 1, wherein the antibody specifically binds to a MSLN-expressing cancer cell.

4. The antibody of claim 3, wherein the MSLN-expressing cancer cell is a human cancer cell.

5. A polynucleotide that encodes the light chain variable domain (VL domain) and the heavy chain variable domain (VH domain) of the antibody of claim 1.

6. An expression vector comprising the polynucleotide of claim 5.

7. A host cell transformed with the expression vector of claim 6.

8. A method for producing an antibody that specifically binds to MSLN, comprising culturing the host cell of claim 7.

9. A pharmaceutical composition for use in preventing or treating cancer, comprising the antibody of claim 1.

10. The pharmaceutical composition for use according to claim 9, wherein the cancer is mesothelioma, pancreatic cancer, ovarian cancer, gastric cancer, lung cancer, or endometrial cancer.

11. The antibody of claim 1 for use in preventing or treating cancer.

12. A use of the antibody of claim 1 in the manufacture of a medicament for preventing or treating cancer.