Claims

1. An isolated antibody having the ability of binding to a protein comprising the amino acid sequence of SEQ ID NO: 2 and mediating killing and/or inhibition of one or more activities of cells expressing a protein comprising the amino acid sequence of SEQ ID NO: 2, wherein said antibody is a monoclonal antibody produced by a clone deposited under the accession no. DSM ACC2822 (4E9-1H9), DSM ACC2826 (9B6-2A9), DSM ACC2824 (59D6-2F2), DSM ACC2825 (61C11-2B5), DSM ACC2823 (78H11-1H6) or a chimeric antibody or humanized antibody or antibody fragment obtained from said clone.

2. An isolated antibody produced by a clone deposited under the accession no. DSM ACC2822 (4E9-1H9), DSM ACC2826 (9B6-2A9), DSM ACC2824 (59D6-2F2), DSM ACC2825 (61C11-2B5), DSM ACC2823 (78H11-1H6).

3. A hybridoma producing an antibody with the specificity of the antibody of claim 1 or 2.

4. A hybridoma deposited under the accession no. DSM ACC2822 (4E9-1H9), DSM ACC2826 (9B6-2A9), DSM ACC2824 (59D6-2F2), DSM ACC2825 (61C11-2B5), DSM ACC2823 (78H11-1 H6).

5. A conjugate comprising an antibody of claim 1 or 2 coupled to a therapeutic agent.

6. The conjugate of claim 5, wherein the therapeutic agent is a toxin, a radioisotope, a drug or a cytotoxic agent.

7. A pharmaceutical composition comprising an antibody of claim 1 or 2 and/or a conjugate of claim 5 or 6, and a pharmaceutically acceptable carrier.

8. A method of inhibiting growth of an isolated cell expressing a protein comprising the amino acid sequence of SEQ ID NO: 2 and/or being characterized by association of said

protein with its cell surface, comprising contacting the cell with an effective amount of an antibody of claim 1 or 2 and/or a conjugate of claim 5 or 6.

9. A method of killing an isolated cell expressing a protein comprising the amino acid sequence of SEQ ID NO: 2 and/or being characterized by association of said protein with its cell surface, comprising contacting the cell with an effective amount of an antibody of claim 1 or 2 and/or a conjugate of claim 5 or 6.

10. A method of inhibiting metastatic spread of an isolated cell expressing a protein comprising the amino acid sequence of SEQ ID NO: 2 and/or being characterized by association of said protein with its cell surface, comprising contacting the cell with an effective amount of an antibody of any one of claims 1 or 2 and/or a conjugate of claims 5 or 6.

11. The method of any one of claims 8 – 10 wherein said protein is expressed on the surface of said cells.