CLAIMS

1. An isolated or purified polypeptide:

- consisting of sequence SEQ ID NO: 3, or a variant polypeptide having at least 85 % of identity to SEQ ID NO: 3, or a variant consisting of a fragment of at least 20 consecutive amino acids of SEQ ID NO: 3, or

- encoded by the cDNA of sequence SEQ ID NO: 4, or a variant thereof by virtue of the degeneracy of the genetic code, or a variant cDNA having at least 85 % of identity to SEQ ID NO: 4.

2. The polypeptide of claim 1, which sequence is as depicted on SEQ ID NO: 35, or a variant polypeptide having at least 85 % of identity to SEQ ID NO: 35.

3. The polypeptide of claim 1, encoded by the cDNA of sequence SEQ ID NO: 36 or a variant thereof by virtue of the degeneracy of the genetic code, or a variant cDNA having at least 85 % of identity to SEQ ID NO: 36.

4. A cDNA of sequence SEQ ID NO: 4 or 36, or a variant thereof by virtue of the degeneracy of the genetic code, or a variant cDNA having at least 85 % of identity to SEQ ID NO: 4 or 36.

5. The use of a polypeptide according to any one of claims 1 to 3 for the preparation of a monoclonal antibody.

6. A netrin-1 binding antibody which specifically binds to a polypeptide having the amino acid sequence SEQ ID NO: 3 or 35 or a variant polypeptide having at least 85 % of identity to SEQ ID NO: 3, wherein the binding polypeptide has the property of binding to netrin-1 and induce cell death or apoptosis of a tumor cell via an UNC5 receptor or DCC receptor.

7. A netrin-1 binding antibody which comprises a CDR1-H of sequence SEQ ID NO: 5, a CDR2-H of sequence SEQ ID NO: 6, a CDR3-H of sequence SEQ ID NO: 7, and a CDR1-L of sequence SEQ ID NO: 8, a CDR2-L of sequence YAS and a CDR3-L of sequence SEQ ID NO: 9, wherein the antibody has the property of binding to netrin-1 and inducing cell death or apoptosis of a tumor cell via an UNC5 receptor or DCC receptor.

8. A netrin-1 binding antibody which comprises a CDR1-H of sequence SEQ ID NO: 28, a CDR2-H of sequence SEQ ID NO: 29, a CDR3-H of sequence SEQ ID NO: 30, and a CDR1-L of sequence SEQ ID NO: 31, a CDR2-L of sequence SEQ ID NO: 32 and a CDR3-L of sequence SEQ ID NO: 9, wherein the antibody has the property of binding to netrin-1 and inducing cell death or apoptosis of a tumor cell via an UNC5 receptor or DCC receptor.

9. The netrin-1 binding antibody of any one of claims 6 to 8, which is an epitope binding fragment thereof.

10. The netrin-1 binding antibody of any one of claim 6 to 9, which comprises an amino acid sequence SEQ ID NO: 10, 11, 12 or 13, preferably both sequences SEQ ID NO: 10 and 11, or SEQ ID NO: 12 and 13.

11. The netrin-1 binding antibody of any one of claim 6 to 10, which comprises an amino acid sequence selected from the group of SEQ ID NO:14 to 19 and/or from the group of SEQ ID NO: 20 to 27, preferably it comprises an amino acid sequence selected from the group of SEQ ID NO: 14 to 19 and an amino acid sequence selected from the group of SEQ ID NO: 20 to 27.

12. The netrin-1 binding antibody of claim 11, which comprises a pair of amino acid sequences selected from the pairs SEQ ID NO: 14 and 20; 15 and 21; 16 and 22; 17 and 23; 17 and 24; 16 and 25; 17 and 26; 17 and 22; 18 and 25; and 16 and 21.

132. A pharmaceutical composition comprising an antibody according to any one of claims 6 to 121, and a pharmaceutically acceptable vehicle, carrier or diluent.

143. Use of an antibody according to any one of claims 6 to 12 for the manufacture of a pharmaceuticalThe composition of claim 12, for use in treating a subject against cancer, wherein the cancer has tumoral cells expressing a netrin-1 receptor, in the presence of netrin-1.

154. Use of an antibody according to any one of claims 6 to 12 for the manufacture of a pharmaceutical The composition of claim 12, for use in treating a subject against cancer, wherein the cancer has tumoral cells expressing a netrin-1 receptor and netrin-1 or a tumoral cells expressing netrin-1 within stroma cells expressing netrin-1.

~~15. A method of treatment of cancer wherein a subject in need thereof is administered with a therapeutically effective amount of a pharmaceutical composition according to Claim 12.~~