CLAIMS

1. Antibody, functional antibody fragment or probe thereof, characterised in that said antibody, functional antibody fragment or probe thereof is derived from L2A5 monoclonal antibody and specifically binds STn and a group of glycans terminated by alpha 2,6-linked sialic acids coding for variable light chain domains and heavy chain domains, each comprising complementary determining regions wherein:
   a) The light chains L-CDR1, L-CDR2 L-CDR3 are SEQ ID Nos. 6, 8 and 10 respectively;
   b) The heavy chains H-CDR1, H-CDR2, H-CDR3 are SEQ ID Nos. 12, 14 and 16 respectively.

2. Antibody, according to claim 1, characterised in that the group of glycans terminated by alpha 2,6-linked sialic acids comprises the STn, 2,6-sialyl T or di-sialyl T or 2,6-sialolactosamine.

3. Antibody, according to the previous claims, characterised in that the antibody, functional antibody fragment or probe thereof is chimeric or humanized.

4. Antibody, according to the previous claims, characterised in that the antibody, functional antibody fragment or probe thereof is subject to glycan changes at glycosylation sites.

5. Method of detecting a tumour in a subject, using the antibody, functional antibody fragment or probe thereof, defined in claims 1 to 4, characterised in that the method comprises the following steps:
   a) Staining a biological sample obtained from a subject possibly having a tumour with the nucleotide

sequences encoding the antibody that specifically binds STn and a group of glycans terminated by alpha 2,6-linked sialic acids, in which the mentioned staining is made under conditions suitable for specific binding of the antibody, or functional antibody fragments or probes thereof encoded by said nucleotide sequences encoding the STn, 2,6-sialyl T, disialyl T or 2,6-sialolactosamine;

b) And wherein the presence or the absence of the binding of the nucleotide sequences encoding the antibody is indicative of the presence or the absence of tumour cells expressing cell surface STn, 2,6-sialyl T, disialyl T or 2,6-sialolactosamine.

6. Method, according to claim 5, characterised in that the biological sample comprises isolated cells, or tissue, or tumour derived proteins.

7. Use of the antibody, functional antibody fragment or probe thereof, defined in claims 1 to 4, characterised in that it is used to treat tumours.

8. Pharmaceutical composition comprising the antibody, functional antibody fragment or probe thereof, defined in claims 1 to 4, characterised in that it further comprises a pharmaceutically acceptable carrier.