## CLAIMS

1. A polypeptide that antagonizes the activity of the TGFβ1, TGFβ2 and TGFβ3 ligands mediated by the ALK5 receptor, characterized by comprising at least one mutation in one of the amino acid residues selected from the group consisting of:

   W30: SEQ ID No. 4 to SEQ ID No. 48
   W32: SEQ ID No. 49 to SEQ ID No. 51
   L101: SEQ ID No. 68 to SEQ ID No. 73
   I51 o L51: SEQ ID No. 52 to SEQ ID No. 63
   Q67: SEQ ID No. 64 to SEQ ID No. 67
   Y6: SEQ ID No. 1 to SEQ ID No. 3

2. The polypeptide of claim 1 characterized by more than 90% homology with the sequence of TGFβ1, TGFβ2 and TGFβ3 ligands.

3. The polypeptide according to claims 1 to 2 coupled to a fragment of human IgG1 comprising the mutations ala234 and ala235 in Cγ2 domain.

4. A pharmaceutical composition for the treatment of cancer, diseases accompanied by fibrosis and chronic infectious diseases comprising;

   at least one polypeptide of claims 1-3 in a range between 50ng/mL-10μg/mL and

   a pharmaceutically suitable vehicle.

5. A pharmaceutical composition according to claim 4 comprising;

   a therapeutically effective amount of a mixture of the polypeptides of claims 1-3 and

   a pharmaceutically suitable vehicle.

6. The polypeptide of any of claims 1 to 3 for use in the treatment of cancer, diseases accompanied by fibrosis and chronic infectious diseases.

7. The polypeptide of any claims 1 to 3 for use to enhance the cellular and/or humoral response to vaccines.

8. The polypeptide according to claim 7 when the vaccine to enhance is a therapeutic vaccine for cancer.

## CLAIMS

1. A polypeptide that antagonizes the activity of the TGF$\beta$1, TGF$\beta$2 and TGF$\beta$3 ligands mediated by the ALK5 receptor, characterized by comprising at least one mutation in one of the amino acid residues selected from the group consisting of:

   W30: SEQ ID No. 4 to SEQ ID No. 48
   W32: SEQ ID No. 49 to SEQ ID No. 51
   L101: SEQ ID No. 68 to SEQ ID No. 73
   I51 or L51: SEQ ID No. 52 to SEQ ID No. 63
   Q67: SEQ ID No. 64 to SEQ ID No. 67
   Y6: SEQ ID No. 1 to SEQ ID No. 3

2. The polypeptide of claim 1 characterized by more than 90% homology with the sequence of TGF$\beta$1, TGF$\beta$2 and TGF$\beta$3 ligands.

3. The polypeptide according to claims 1 to 2 coupled to a fragment of human IgG1 comprising the mutations ala234 and ala235 in C$\gamma$2 domain.

4. A pharmaceutical composition comprising;

   at least one polypeptide of claims 1-3 in a range between 50ng/mL-10$\mu$g/mL; and
   a pharmaceutically suitable vehicle.

5. A pharmaceutical composition according to claim 4 comprising;
   a therapeutically effective amount of a mixture of the polypeptides of claims 1-3 and
   a pharmaceutically suitable vehicle.

6. Use of the polypeptide of any of claims 1 to 3 in the manufacture of a medicament for the treatment of cancer.