

1. An immunocytokine for stimulating the activation and/or proliferation of IL-15Rbeta/gamma-positive cells, comprising a heterodimeric protein complex based on IL-15/IL-15Rα comprising:

1) IL-15Rα linked to the antibody light chain constant domain has the amino acid sequence represented by SEQ ID NO:1 or SEQ ID NO:19, and

IL-15 linked to the antibody heavy chain constant domains has the amino acid sequence represented by SEQ ID NO:2 or SEQ ID NO:20, or

2) the IL-15Rα linked to the antibody heavy chain constant domains has the amino acid sequence represented by SEQ ID NO:4 or SEQ ID NO:22, and

the IL-15 linked to the antibody light chain constant domain has the amino acid sequence represented by SEQ ID NO:3 or SEQ ID NO:21

2. An immunocytokine for stimulating the activation and/or proliferation of IL-15Rbeta/gamma-positive cells, comprising a heterodimeric protein complex based on IL-15/IL-15Rα and an immunomodulatory antibody, which specifically inhibit the PD-1 pathway,

wherein

1) a) the heterodimeric protein complex based on IL-15/IL-15Rα comprises:

IL-15Rα linked to the antibody light chain constant domain has the amino acid sequence represented by SEQ ID NO:1 or SEQ ID NO:19, and

IL-15 linked to the antibody heavy chain constant domains has the amino acid sequence represented by SEQ ID NO:5 or SEQ ID NO:23;

b) the immunomodulatory antibody comprises:

a heavy chain comprising the amino acid sequence represented by SEQ ID NO:7;

a light chain comprising the amino acid sequence represented by SEQ ID NO:8; or

2) a) the IL-15Rα linked to the antibody heavy chain constant domains has the amino acid sequence represented by SEQ ID NO:6 or SEQ ID NO:24, and

the IL-15 linked to the antibody light chain constant domain has the amino acid sequence represented by SEQ ID NO:3 or SEQ ID NO:21;

b) the immunomodulatory antibody comprises:

a heavy chain comprising the amino acid sequence represented by SEQ ID NO:7;

a light chain comprising the amino acid sequence represented by SEQ ID NO:8.

3 An isolated nucleic acid encoding the immunocytokine of any of Claims 1 or 2.

4. The nucleic acid of Claim 3, wherein the nucleic acid is DNA.

5. An expression vector comprising the nucleic acid of any of Claims 3-4.

6. A method for producing a host cell for producing the immunocytokine of any of Claims 1 or 2 comprising transformation of the cell with the vector of Claim 5.

7. A host cell for producing the immunocytokine of any of Claims 1 or 2 comprising the nucleic acid of any of Claims 3-4.

8. A method for producing a product comprising the immunocytokine of any of Claims 1 or 2 comprising culturing of the host cell of Claim 7 in a culture medium under conditions sufficient to produce said immunocytokine, if necessary, followed by isolation and purification of the produced immunocytokine.