Claims

1. A *Pichia* sp. yeast comprising an expression vector comprising a polynucleotide encoding a human immunoglobulin Fc fragment, wherein the expression vector is pPIC9K-IgG4Fc, as represented by the cleavage map of FIG. 1, or pPIC9K-mPSCFc, as represented by the cleavage map of FIG. 2.

2. The *Pichia* sp. yeast of claim 1, wherein the *Pichia* sp. yeast is *Pichia pastoris*.

3. The *Pichia* sp. yeast of claim 1, wherein the immunoglobulin is IgG.

4. The *Pichia* sp. yeast of claim 3, wherein the IgG is IgG1, IgG2, IgG3 or IgG4.

5. The *Pichia* sp. yeast of claim 1, wherein the immunoglobulin Fc fragment comprises an amino acid sequence represented by SEQ ID NO: 10 or SEQ ID NO: 11.

6. The *Pichia* sp. yeast of claim 1, wherein the polynucleotide comprises a nucleotide sequence represented by SEQ ID NO: 1 or SEQ ID NO: 2.

7. The *Pichia* sp. yeast of claim 1, being *Pichia (Komagataella) pastoris* HMC041 (Accession No. KCCM11348P) or *Pichia (Komagataella) pastoris* HMC042 (Accession No. KCCM11350P).

8. A method for producing an immunoglobulin Fc fragment, comprising:
   (a) culturing the transformant of any one of claims 1 to 7; and
   (b) recovering the immunoglobulin Fc fragment from the culture.

9. An immunoglobulin Fc fragment, prepared by the method of claim 8, for use as a drug carrier.

10. The immunoglobulin Fc fragment of claim 9, comprising an amino acid sequence represented by SEQ ID NO: 10 or SEQ ID NO: 11.

11. The method of claim 8, wherein the method is characterized by not requiring an additional protein refolding process.

Claims

[Claim 1] A transformant, modified by introducing an expression vector comprising a polynucleotide encoding a human immunoglobulin Fc fragment into *Pichia* sp. yeast.

[Claim 2] The transformant of claim 1, wherein the *Pichia* sp. yeast is *Pichia* pastoris.

[Claim 3] The transformant of claim 1, wherein the immunoglobulin is IgG.

[Claim 4] The transformant of claim 3, wherein the IgG is IgG1, IgG2, IgG3 or IgG4.

[Claim 5] The transformant of claim 1, wherein the immunoglobulin Fc fragment comprises an amino acid sequence represented by SEQ ID NO: 10 or SEQ ID NO: 11.

[Claim 6] The transformant of claim 1, wherein the polynucleotide comprises a nucleotide sequence represented by SEQ ID NO: 1 or SEQ ID NO: 2.

[Claim 7] The transformant of claim 1, wherein the expression vector is pPIC9K-IgG4Fc, as represented by the cleavage map of FIG. 1, or pPIC9K-mPSCFc, as represented by the cleavage map of FIG. 2.

[Claim 8] The transformant of claim 1, being *Pichia* (Komagataella) pastoris HMC041 (Accession No. KCCM11348P) or *Pichia* (Komagataella) pastoris HMC042 (Accession No. KCCM11350P).

[Claim 9] A method for producing an immunoglobulin Fc fragment, comprising:
(a) culturing the transformant of any one of claims 1 to 8; and
(b) recovering the immunoglobulin Fc fragment from the culture.

[Claim 10] An immunoglobulin Fc fragment, prepared by the method of claim 9, for use as a drug carrier.

[Claim 11] The immunoglobulin Fc fragment of claim 10, comprising an amino acid sequence represented by SEQ ID NO: 10 or SEQ ID NO: 11.

[Claim 12] The method of claim 9, wherein the method is characterized by no requiring an additional protein refolding process.