CLAIMS

1. A fusion protein characterized by the fact that one comprises the amino acid sequence identical or 90 to 95% similar to H fragment or protein binding to calcium excreted-secreted by adult worms of Fasciola hepatica, followed by an amino acid sequence corresponding to a protein or protein fragment not related with the fusion protein, being the addition of the fusion tags to the not related protein made at position N or C-terminal.

2. Fusion protein according to claim 1, characterized by the fact that the H fragment corresponding to a fragment structurally similar to N-terminal 11 amino acids of the protein FH8, SEQ ID NO 2.

3. Fusion protein according to claim 1, characterized in that the amino acid sequence to a protein binding to calcium is structurally similar to excreted-secreted by adult worms of Fasciola hepatica be FH8, SEQ ID NO 1.

4. Fusion protein according to claim 1, characterized in that the amino acid sequence corresponding to a unrelated protein fragment or protein to be the CP12.

5. Fusion protein according to claim 1, characterized in that the amino acid sequence corresponding to a unrelated protein fragment or protein to be the I15.

6. Fusion protein according to claim 1, characterized in that the amino acid sequence corresponding to a unrelated protein fragment or protein to be the TgOWP.

7. An expression vector characterized by the fact that it comprise a polynucleotide sequence that encodes the fusion protein according to any one of claims 1 to 6.

8. A host cell characterized by the fact that to comprise the expression vector according to claim 7.

9. A process for the preparation of fusion proteins according to any one of claims 1 to 6, characterized by the fact that cultivating a host cell according to claim 8 under conditions appropriate for expression of the fusion protein and isolating the fused protein.

10. Use of the fusion protein according to any one of claims 1 to 7 for the production of proteins or protein fragments added in expression systems.

11. Use of a fragment H or calcium binding proteins, excreted-secreted by adult worms of Fasciola hepatica in the production of recombinant proteins.

CLAIMS

1. A fusion protein comprising a protein binding to calcium excreted-secreted by adult worms of Fasciola hepatica, followed by an amino acid sequence corresponding to a protein or protein fragment not related with the previous, being the addition of the fusion tags to the not related protein made at position N or C-terminal wherein said protein binding to calcium is SEQ ID NO 1.

2. Fusion protein according to claim 1, characterized in that the amino acid sequence corresponding to a unrelated protein fragment or protein to be the CP12.

3. Fusion protein according to claim 1, characterized in that the amino acid sequence corresponding to a unrelated protein fragment or protein to be the IL5.

4. Fusion protein according to claim 1, characterized in that the amino acid sequence corresponding to a unrelated protein fragment or protein to be the TgOWP.

5. An expression vector characterized by the fact that it comprise a polynucleotide sequence that encodes the fusion protein according to any one of claims 1 to 4.

6. A host cell characterized by the fact that to comprise the expression vector according to claim 5.

7. A process for the preparation of fusion proteins according to any one of claims 1 to 4, characterized by the fact that cultivating a host cell according to claim 6 under conditions appropriate for expression of the fusion protein and isolating the fused protein.

8. Use of the fusion protein according to any one of claims 1 to 5 as an enhancer of the production of proteins or protein fragments added in expression systems.

9. Use of a calcium binding proteins, excreted-secreted by adult worms of Fasciola hepatica with SEQ ID NO 1 as an enhancer of the production and/or solubilisation of recombinant proteins.