What is claimed is:

1. A cell culture medium for the expression of a protein, which medium comprises a PAM inhibitor, or a physiological equivalent thereof.

2. A cell culture process for the expression of a protein, in which process a PAM inhibitor, or a physiological equivalent thereof, is used.

3. The process or the cell culture medium according to claim 1 or 2, wherein said expression is a heterologous protein expression.

4. The process or the cell culture medium according to any of claims 1 - 3, wherein the heterologous expression takes place in a mammalian cell based expression system

5. The process or the cell culture medium according to any of claims 1 - 4, wherein said protein is at least one protein selected from the group consisting of:

- an antibody, or a fragment or derivative thereof
- a fusion protein, and/or
- non-antibody proteins.

6. The process or the cell culture medium according to any of claims 4 - 5, wherein said mammalian cell-based expression system is at least one selected from the group consisting of:

- Baby hamster Kidney cell lines (e.g., BHK21)
- Chinese hamster ovary cell lines (e.g., CHO-K1, CHO-DG44, CHO-DXB, or CHO-dhfr$^-$)
- Murine myeloma cell lines (e.g., SP2/0)
- Mouse myeloma cell lines (e.g., NS0)
- Human embryonic kidney cell lines (e.g., HEK-293)
- Human-retina-derived cell lines (e.g., PER-C6), and/or
- Amniocyte cell lines (e.g., CAP).

7. The process according to any of claims 2 - 6, wherein said process takes place in at least one bioreactor or culture vessel selected from the group consisting of:

- shake flasks
- T-flasks
- roller bottles
- bags
- bioreactors, and/or
- spinner flasks.

8. The process or the cell culture medium according to any of claims 1 - 7, wherein the PAM inhibitor, or a physiological equivalent thereof, serves to affect the formation of amidated amino acid residues, particularly C-terminal proline amide residues.

9. The process or the cell culture medium according to any of claims 1 - 8, wherein the PAM inhibitor is 4-phenyl-3-butenoic acid (PBA), or a physiological equivalent thereof.

10. The process or the cell culture medium according to claim 9, wherein 4-phenyl-3-butenoic acid (PBA), or a physiological equivalent thereof, is used in a concentration of $\geq$ 0,01 µM and $\leq$ 3M.

CLAIMS

1. A cell culture medium for the heterologous expression of a protein, which medium comprises a feed, and which medium further comprises a PAM inhibitor, or a physiological equivalent thereof.

2. A process for the heterologous expression of a protein, comprising culturing one or more cells in a cell culture medium, wherein said cell culture medium comprises a PAM inhibitor, or a physiological equivalent thereof, and wherein said one or more cells expresses a heterologous protein.

3. The cell culture medium according to claim 1, wherein the heterologous expression takes place in a mammalian cell based expression system.

4. The cell culture medium according to claim 1 or 3, wherein said protein is at least one protein selected from the group consisting of:

   an antibody or a fragment or derivative thereof,

   a fusion protein, and

   a physiologically active non-antibody protein.

5. The cell culture medium according to claim 3 or 4, wherein said mammalian cell-based expression system is at least one selected from the group consisting of:

   Baby hamster Kidney cell lines (BHK21),

   Chinese hamster ovary cell lines (CHO-K1, CHO-DG44, CHO-DXB, or CHO-dhfr$^-$),

   Murine myeloma cell lines (SP2/0),

   Mouse myeloma cell lines (NS0),

   Human embryonic kidney cell lines (HEK-293),

   Human-retina-derived cell lines (PER-C6), and

   Amniocyte cell lines (CAP).

6. The process according to claim 2, wherein said process takes place in at least one bioreactor or culture vessel, wherein the at least one bioreactor or culture vessel is

selected from the group consisting of: a shake flask, a T-flask, a roller bottle, a bag, a bioreactor, and a spinner flask.

7. The cell culture medium according to any of claims 1 or 3 - 5, wherein the PAM inhibitor is 4-phenyl-3-butenoic acid (PBA), or a physiological equivalent thereof.

8. The cell culture medium according to claim 7, wherein 4-phenyl-3-butenoic acid (PBA), or a physiological equivalent thereof, is used in a concentration of $\geq$0.01 µM and $\leq$3M.

9. The process according to claim 2 or 6, wherein the heterologous expression takes place in a mammalian cell based expression system.

10. The process according to any of claims 2, 6 or 9, wherein said protein is at least one protein selected from the group consisting of: an antibody or a fragment or derivative thereof, a fusion protein, and a physiologically active non-antibody protein.

11. The process according to claim 9 or 10, wherein said mammalian cell based expression system is at least one selected from the group consisting of:

Baby hamster Kidney cell lines (BHK21),
Chinese hamster ovary cell lines (CHO-K1, CHO-DG44, CHO-DXB, or CHO-dhfr$^-$),
Murine myeloma cell lines (SP2/0),
Mouse myeloma cell lines (NS0),
Human embryonic kidney cell lines (HEK-293),
Human-retina-derived cell lines (PER-C6), and
Amniocyte cell lines (CAP).

12. The process according to any of claims 2, 6 or 9 to 11, wherein the PAM inhibitor is 4-phenyl-3-butenoic acid (PBA), or a physiological equivalent thereof.

13. The process according to claim 12, wherein 4-phenyl-3-butenoic acid (PBA), or a physiological equivalent thereof, is used in a concentration of $\geq$0.01 µM and $\leq$3M.