**Claims:**

1. A culture medium for the cultivation of cells comprising, a protein hydrolysate as a source of amino acids,
wherein the protein hydrolysate is prepared by enzymatic hydrolysis of a protein substrate,
wherein the cells are non-human metazoan cells, and

wherein a total input of amino acids from the protein hydrolysate, including amino acids in the form of peptides or suitable bioavailable derivatives, is at least 75% by weight of the total input of all amino acids in the culture medium;

wherein a total input of the protein hydrolysate expressed as dry protein weight introduced into the culture medium is in the range of 8 g/L to 50 g/L.

2. The culture medium according to claim 1, wherein the total input of amino acids added to the culture medium separately from the protein hydrolysate is in the range of 0.1g/L to 10g/L

3. The culture medium according to claim 1, wherein the protein substrate for the protein hydrolysate comprises at least one of: soy, pea, rice, wheat, corn, fava beans, alfalfa, hemp, chickpea, potato, pumpkin, rapeseed, red lentil, Spirulina, Chlorella, sunflower, water lentil, mung bean or baker's yeast.

4. The culture medium according to claim 1, further comprising one or more of vitamins, sugars, minerals, organic amines, micronutrients, iron supplement compounds, or shear protectants.
5. The culture medium according to claim 1, further comprising at least one exogenous signalling protein, wherein the exogeneous signalling protein has a concentration of up to 50 mg/L in the culture medium.
6. The culture medium according to claim 1, further comprising a source of bioavailable inorganic nitrogen, wherein a total input of the source of bioavailable inorganic nitrogen is in the range of 1 g/L to 10 g/L.

7. A culture medium for the cultivation of cells comprising:

a protein hydrolysate as a source of amino acids,
wherein the protein hydrolysate is prepared by an enzymatic hydrolysis of a source protein substrate,
wherein the cells are non-human metazoan cells,
wherein a total input of supplemented amino acids added to the culture medium separately from the protein hydrolysate is in a range of 0.1 g/L to 10 g/L.

8.The culture medium according to claim 7,
wherein the culture medium comprises at least one essential amino acids, wherein a highest possible conversion efficiency for essential total amino acids is in a range of 30 % to 100 %, as calculated by equation (1):

$$H_{EAA} = \frac{\frac{A_{EAAM}}{\Sigma A_{EAAM}}}{\frac{A_{EAAC}}{\Sigma A_{EAAC}}} * 100, \quad (1)$$

where
$H_{EAA}$ is the highest conversion efficiency for a particular amino acid,

$A_{EAAM}$ is the content of that particular essential amino acid in 100 g of protein in culture medium,

$\Sigma A_{EAAM}$ is the total content of all essential amino acids in 100 g of protein in culture medium,

$A_{EAAC}$ is the content of the particular essential amino acid in 100 g of cellular protein, and

wherein the concentrations of amino acids in grams per 100 grams of total essential amino acids introduced into the cultivation process is 0.3 g to 6.04 g for His, 0.57 g to 11.41 g for Ile, 1.00 g to19.91 g for Leu, 0.92 g to 18.34 g for Lys, 0.32 g to 6.49 g for Met, 0.53 g to 10.51 g for Phe, 0.54 g to 10.74 g for Thr, 0.18 g to 3.58 g for Trp, 0.65 g to 12.98 g for Val; and

wherein the highest possible conversion efficiency is determined by the most limiting essential amino acid.

9. The culture medium according to claim 7, further comprising a supplemented amino acid comprising at least one of: L-methionine, L-cysteine, L-cystine, L-ornithine, L-tryptophan, L-histidine, or L-threonine, added separately from the protein enzymatic hydrolysate.

10. The culture medium according to claim 9, wherein the total input of the protein hydrolysate expressed as dry protein weight introduced into the culture medium is in a range of 8 g/L to 50 g/L.

11. The culture medium according to claim 7, further comprising at least one of: vitamins, sugars, minerals, organic amines, micronutrients, iron supplementation compounds, or shear protectants.

12. The culture medium according to claim 11, wherein the culture medium comprises an organic amine, wherein the organic amine is at least one of putrescine or ethanolamine.

13. The culture medium according to claim 11, wherein the culture medium comprises a micronutrient, wherein the micronutrient comprises at least one of: spermine, spermidine, putrescine, thymidine, L-Ornithine, Ethanolamine, myo-inositol, or choline.

14. The culture medium according to claim 11, wherein the culture medium comprises at least one iron supplementation compound, wherein the at least one iron supplementation compound comprises iron in oxidation state iron(III) or iron(II).

15. The culture medium according to claim 11, wherein the culture medium comprises a shear protectant, wherein the shear protectant comprises at least one of: polyethylene glycol (PEG), methyl cellulose (MC), (hydroxypropyl)methyl cellulose (HPMC), hydroxypropyl cellulose (HPC), carboxymethyl cellulose (CMC), or dextran sulfate.

16. A culture medium for cultivation of cells,

comprising a protein hydrolysate as a source of amino acids,

wherein the protein hydrolysate is prepared by an enzymatic hydrolysis of a protein substrate,

wherein the cells are non-human metazoan cells,

wherein a total input of protein hydrolysate, expressed as dry protein weight introduced into the culture medium is in a range of 8 g/L to 50 g/L.

17. The culture medium according to claim 16,

wherein the enzymatic hydrolysis occurs in a hydrolysis reaction mixture comprising the enzymes and the protein substrate,

wherein a total enzyme concentration in the hydrolysis reaction mixture is in a range of 0.05 to 5% expressed as a ratio of the concentration of the enzymes in the hydrolysis reaction mixture to the concentration of the protein substrate in the hydrolysis reaction mixture. .

18. The culture medium according to claim 16, wherein a degree of the enzymatic hydrolysis of the protein substrate, defined as a percentage of hydrolyzed peptide bonds out of a total amount of peptide bonds present in the substrate at the start of thehydrolysis reaction, is in a range of 10% to 60%.

19. The culture medium according to claim 16, wherein

the cells are anchorage independent, defined as being able to survive and grow in suspension conditions without attachment to any surface,

and/or

the cells are able to survive and grow as a suspension of cell clumps, cell aggregates, spheroids or organoids.

20. The process for preparation of the culture medium according to claim 16,

wherein the concentration of protein in the reaction mixture of hydrolysis is

in a range of 30 g/L to 130 g/L.

21. The culture medium according to claim 16, wherein an amount of the amino acid source in a range of 20% to 100% is converted during hydrolysis into free amino acids and short peptides smaller than 500 Da.

22. A method for preparing a culture medium for the cultivation of cells, comprising:

comprising providing a protein hydrolysate as a source of amino acids, wherein the protein hydrolysate is prepared by enzymatic hydrolysis of a protein substrate, adding the protein hydrolysate to the culture medium in a total amount, expressed as dry protein weight, in a range of 8g/L to 50g/L; and

wherein a total input of amino acids from the protein hydrolysate, including amino acids in the form of peptides, bioavailable derivatives, or a combination thereof, is at least 75% by weight of a total input of all amino acids in the culture medium;

wherein the cells are non-human metazoan cells.

23. The method for preparing a culture medium according to claim 22,
wherein at least two types of enzymes are used for enzymatic hydrolysis, wherein the at least two types of enzymes comprise:
(i) at least one endoprotease and at least one exoprotease, or
(ii) at least one of the following types of enzymes: serine protease, cysteine protease, metalloprotease, glutamic protease or aspartic protease.

24. The method for preparing the culture medium according to claim 22, wherein the culture medium has an osmolality in a range of 200 mOsm/kg to 400 mOsm/kg.

25. The method for preparing the culture medium according to claim 22, wherein the enzymatic hydrolysis of the protein substrate occurs in a hydrolysis reaction mixture comprising the protein substrate and an enzyme, wherein the protein substrate is at a concentration in a range of 30 to 130 g/L.

26. The method for preparation of the culture medium according to claim 22,

wherein the culture medium is further filtered using a filter having a pore size in

a range of 0.001 µm to 10 µm.

27. The method for preparation of the culture medium according to claim 22, wherein

the protein substrate is subjected to an initial thermal pretreatment to improve solubility and susceptibility to hydrolysis, wherein a temperature of the initial thermal pretreatment is in a range of 75 ºC to 95ºC for a duration in a range of 5 minutes to 120 minutes.

28. The method for preparation of the culture medium according to claim 22,

wherein the protein substrate is further enzymatically treated by a phytase enzyme.

29. The culture medium according to claim 1,
wherein the protein hydrolysate is thermally treated at the end of hydrolysis to deactivate enzymes and kill microorganisms.

30. The culture medium according to claim 1,

wherein a total input of the protein hydrolysate introduced into the culture medium is in a range of 0.2% to 25%