

(a) preparing highly concentrated antibody solution by a method for preparing a composition comprising highly concentrated antibodies by ultrafiltration, wherein the method comprises the steps of:

- 1) regulating the feed flow rate to allow the value of feed pressure applied to an ultrafiltration membrane to increase to 85-100% of a specified maximum feed pressure of an ultrafiltration membrane; and
- 2) decreasing the feed flow rate to maintain or decrease the value of the feed pressure applied to the ultrafiltration membrane after the step (1); and

(b) preparing a pharmaceutical liquid composition comprising an antibody by adding a pharmaceutically acceptable carrier into the above highly concentrated antibody solution.

[0012b] In another aspect, there is provided a method for preparing a composition comprising

concentrated proteins by ultrafiltration, wherein the method comprises concentrating a protein preparation by ultrafiltrating the preparation, said ultrafiltrating comprising:

- a) regulating a feed flow rate of the preparation to allow a value of feed pressure applied to an ultrafiltration membrane to increase to 2.0 bar or a value of above 2.0 bar; and
- b) decreasing the feed flow rate to maintain or decrease the value of the feed pressure applied to the ultrafiltration membrane after the step (a),

wherein the protein preparation directly after said ultrafiltrating has a protein concentration above 200 g/L or a viscosity above 10 mPa·s.

[0012c] In another aspect, there is provided a method method for preparing a composition

comprising concentrated proteins by ultrafiltration, wherein the method comprises concentrating a protein preparation by ultrafiltrating the preparation, said ultrafiltrating comprising:

- a) regulating a feed flow rate of the preparation to allow a value of feed pressure applied to an ultrafiltration membrane to increase to 3.5 bar or a value of above 3.5 bar; and
- b) decreasing the feed flow rate to maintain or decrease the value of the feed pressure applied to the ultrafiltration membrane after the step (a),

wherein the protein preparation directly after said ultrafiltrating has a protein concentration above 200 g/L or a viscosity above 10 mPa·s.

[0013]

In summary, it is an object of the present disclosure to provide the following [1] to [33].

[Claim 36]

A method for preparing a composition comprising concentrated proteins by ultrafiltration,

wherein the method comprises concentrating a protein preparation by ultrafiltrating the preparation, said ultrafiltrating comprising:

- a) regulating a feed flow rate of the preparation to allow a value of feed pressure applied to an ultrafiltration membrane to increase to 2.0 bar or a value of above 2.0 bar; and
- b) decreasing the feed flow rate to maintain or decrease the value of the feed pressure applied to the ultrafiltration membrane after the step (a),

wherein the protein preparation directly after said ultrafiltrating has a protein concentration above 200 g/L or a viscosity above 10 mPa·s.

[Claim 37]

A method for preparing a composition comprising concentrated proteins by ultrafiltration,

wherein the method comprises concentrating a protein preparation by ultrafiltrating the preparation, said ultrafiltrating comprising:

- a) regulating a feed flow rate of the preparation to allow a value of feed pressure applied to an ultrafiltration membrane to increase to 3.5 bar or a value of above 3.5 bar; and
- b) decreasing the feed flow rate to maintain or decrease the value of the feed pressure applied to the ultrafiltration membrane after the step (a),

wherein the protein preparation directly after said ultrafiltrating has a protein concentration above 200 g/L or a viscosity above 10 mPa·s.

[Claim 38]

The method of claim 36, wherein the protein is an antibody.

[Claim 39]

The method of claim 37, wherein the protein is an antibody.