What is claimed is:

1. A storage method of human corneal endothelial cells and/or human corneal endothelial precursor cells characterized in that human corneal endothelial cells and/or human corneal endothelial precursor cells that have been cultured using a culture medium that contains a ROCK inhibitor, and in which the content of epidermal growth factor (EGF) is less than a concentration that will cause a transformation are harvested at a timing when any one of or a plurality of the conditions (a) ~ (d) given below have been met, and are placed in a suspension state and then preserved:

(a) if the cells are seeded at a cell density of not less than 300 cells/mm^2 and not more than 500 cells/mm^2, during a period from immediately after a morphology of the human corneal endothelial cells and/or human corneal endothelial precursor cells has shifted from a spindle-shaped to a polygonal shape or an elliptical shape whose major axis-minor axis ratio is close to 1, until immediately before boundaries between the cells become indistinct;

(b) if the cells are seeded at a cell density of not less than 300 cells/mm^2 and not more than 500 cells/mm^2, during a period from when an expression level of CD44 becomes equal to or less than half a maximum value observed after the most recent subculturing until this expression level reaches a plateau;

(c) if the cells are seeded at a cell density of not less than 300 cells/mm^2 and not more than 500 cells/mm^2, when the cell density of the human corneal endothelial cells and/or human corneal endothelial precursor cells is not less than 900 cells/mm^2 and not more than 2500 cells/mm^2; and

(d) if the cells are seeded at a cell density of not less than 300 cells/mm^2 and not more than 500 cells/mm^2, when the number of culturing days since the most recent

subculturing is not less than 4 days and not more than 14 days.

2. The storage method according to Claim 1, wherein the human corneal endothelial cells and/or human corneal endothelial precursor cells are preserved at a temperature of not more than 10 degrees centigrade.

3. The storage method according to Claim 1, wherein the human corneal endothelial cells and/or human corneal endothelial precursor cells are preserved at a temperature of not more than -30 degrees centigrade.

4. The storage method according to any one of Claims 1 to 3, wherein the human corneal endothelial cells and/or human corneal endothelial precursor cells are preserved for 24 hours or longer after being placed in a suspension state.

5. The storage method according to any one of Claims 1 to 4, wherein the transformation includes endothelial-mesenchymal transitions.

6. The storage method according to any one of Claims 1 to 5, wherein the human corneal endothelial cells and/or human corneal endothelial precursor cells are created using, as a source, cells selected from a group consisting of corneal endothelial cell-derived cells, pluripotent stem cells, mesenchymal stem cells, corneal endothelial precursor cells harvested from a corneal endothelium, cells harvested from a corneal endothelium, and corneal endothelial precursor cells and corneal endothelial-like cells produced via a direct programing method.

7. Cell population obtained by culturing human corneal endothelial cells and/or human corneal endothelial precursor cells preserved using the storage method described in any one of Claims 1 to 6 cultured and/or differentiated and matured using a culture medium that contains a ROCK inhibitor and in which the content of epidermal growth factor (EGF) is less than a concentration that will cause a transformation, wherein results of a purity test performed via a FACS of the cell population satisfy all of the

following ranges:

$CD166^{+} > 99\%$

$CD24^{+} < 5\%$

$CD44^{high} < 5\%$

$CD44^{neg\sim low} > 90\%$

$CD90^{+} < 5\%$.

8. A suspension solution of cell population obtained by culturing human corneal endothelial cells and/or human corneal endothelial precursor cells preserved using the storage method described in any one of Claims 1 to 6 cultured and/or differentiated and matured using a culture medium that contains a ROCK inhibitor and in which the content of epidermal growth factor (EGF) is less than a concentration that will cause a transformation, wherein results of a purity test performed via a FACS of the cell population satisfy all of the following ranges:

$CD166^{+} > 99\%$

$CD24^{+} < 5\%$

$CD44^{high} < 5\%$

$CD44^{neg\sim low} > 90\%$

$CD90^{+} < 5\%$.

9. A suspension solution preparation method for preparing a suspension solution of human corneal endothelial cells and/or human corneal endothelial precursor cells characterized in that human corneal endothelial cells and/or human corneal endothelial precursor cells that have been cultured using a culture medium that contains a ROCK inhibitor, and in which the content of epidermal growth factor (EGF) is less than a concentration that will cause a transformation are harvested at a timing when any one of or a plurality of the conditions (a) ~ (d) given below have been met, and are placed in a

suspension state:

(a) if the cells are seeded at a cell density of not less than 300 cells/mm^2 and not more than 500 cells/mm^2, during a period from immediately after a morphology of the human corneal endothelial cells and/or human corneal endothelial precursor cells has shifted from a spindle fibroblast-like shape having irregular elongated projections to a tessellated shape whose major axis-minor axis ratio including the projections is close to 1, until immediately before boundaries between the cells become indistinct;

(b) if the cells are seeded at a cell density of not less than 300 cells/mm^2 and not more than 500 cells/mm^2, during a period from when an expression level of CD44 becomes equal to or less than half a maximum value observed after the most recent subculturing until this expression level reaches a plateau;

(c) if the cells are seeded at a cell density of not less than 300 cells/mm^2 and not more than 500 cells/mm^2, when the cell density of the human corneal endothelial cells and/or human corneal endothelial precursor cells is not less than 900 cells/mm^2 and not more than 2500 cells/mm^2; and

(d) if the cells are seeded at a cell density of not less than 300 cells/mm^2 and not more than 500 cells/mm^2, when the number of culturing days since the most recent subculturing is not less than 4 days and not more than 14 days.

10. A culturing method for culturing human corneal endothelial cells and/or human corneal endothelial precursor cells characterized in that human corneal endothelial cells and/or human corneal endothelial precursor cells that have been cultured using a culture medium that contains a ROCK inhibitor, and in which the content of epidermal growth factor (EGF) is less than a concentration that will cause a transformation are harvested at a timing when any one of or a plurality of the conditions (a) ~ (d) given below have been met, and are subcultured:

(a) if the cells are seeded at a cell density of not less than 300 cells/mm^2 and not more than 500 cells/mm^2, during a period from immediately after a morphology of the human corneal endothelial cells and/or human corneal endothelial precursor cells has shifted from a spindle fibroblast-like shape having irregular elongated projections to a tessellated shape whose major axis-minor axis ratio is close to 1, until immediately before boundaries between the cells become indistinct;

(b) if the cells are seeded at a cell density of not less than 300 cells/mm^2 and not more than 500 cells/mm^2, during a period from when an expression level of CD44 becomes equal to or less than half a maximum value observed after the most recent subculturing until this expression level reaches a plateau;

(c) if the cells are seeded at a cell density of not less than 300 cells/mm^2 and not more than 500 cells/mm^2, when the cell density of the human corneal endothelial cells and/or human corneal endothelial precursor cells is not less than 900 cells/mm^2 and not more than 2500 cells/mm^2; and

(d) if the cells are seeded at a cell density of not less than 300 cells/mm^2 and not more than 500 cells/mm^2, when the number of culturing days since the most recent subculturing is not less than 4 days and not more than 14 days.

11. A method for the preservation of cultured human corneal endothelial cells and/or human corneal endothelial precursor cells, the method comprising,

obtaining a plurality of human corneal endothelial cells and/or human corneal endothelial precursor cells;

separating at least a portion of the plurality of cells to generate a cell population for evaluation and a cell population for preservation;

evaluating at least a portion of the cell population for evaluation for one or more of the following criteria:

(a) a morphology of the human corneal endothelial cells and/or human corneal endothelial precursor cells to identify cells that have shifted from spindle-shaped to either of (i) a polygonal shape or (ii) an elliptical shape whose major axis-minor axis ratio is close to 1 and still have distinct boundaries between the cells if the cells are seeded at a cell density of not less than 300 cells/mm^2 and not more than 500 cells/mm^2;

(b) an expression level of CD44 to identify cells expressing a consistent level of CD44 after previously expressing CD44 at a level equal to or less than half a maximum value observed after an immediately prior subculturing if the cells are seeded at a cell density of not less than 300 cells/mm^2 and not more than 500 cells/mm^2;

(c) cell density to identify when the cell density of the human corneal endothelial cells and/or human corneal endothelial precursor cells is not less than 900 cells/mm^2 and not more than 2500 cells/mm^2 if the cells are seeded at a cell density of not less than 300 cells/mm^2 and not more than 500 cells/mm^2; and

(d) a time period between the evaluation and an immediately prior subculturing to determine if the time is not less than 4 days and not more than 14 days if the cells are seeded at a cell density of not less than 300 cells/mm^2 and not more than 500 cells/mm^2; and

placing at least a portion of the cells from the cell population for preservation in a storage media when the cell population for evaluation meets one or more of the evaluation criteria of (a), (b), (c), or (d).

12. The method of Claim 11, wherein the human corneal endothelial cells and/or human corneal endothelial precursor cells are preserved at a temperature of 10 degrees centigrade or less.

13. The method of Claim 11 or 12, wherein the human corneal endothelial cells and/or human corneal endothelial precursor cells are preserved for at least 24 hours.

14. The method according to any one of Claims 11 to 13, wherein the human corneal endothelial cells and/or human corneal endothelial precursor cells are created using, as a source, cells selected from a group consisting of corneal endothelial cell-derived cells, pluripotent stem cells, mesenchymal stem cells, corneal endothelial precursor cells harvested from a corneal endothelium, cells harvested from a corneal endothelium, and corneal endothelial precursor cells and corneal endothelial-like cells produced via a direct programing method.

15. A method for processing cultured human corneal endothelial cells and/or human corneal endothelial precursor cells, the method comprising,

culturing a plurality of human corneal endothelial cells and/or human corneal endothelial precursor cells in a culture vessel comprising a culture media;

separating at least a portion of the plurality of cells to generate a cell population for evaluation and a remainder cell population;

evaluating at least a portion of the cell population for evaluation for one or more of the following criteria:

(a) a morphology of the human corneal endothelial cells and/or human corneal endothelial precursor cells to identify cells that have shifted from spindle-shaped to either of (i) a polygonal shape or (ii) an elliptical shape whose major axis-minor axis ratio is close to 1 and still have distinct boundaries between the cells if the cells are seeded at a cell density of not less than 300 cells/mm^2 and not more than 500 cells/mm^2;

(b) an expression level of CD44 to identify cells expressing a consistent level of CD44 after previously expressing CD44 at a level equal to or less than half a maximum value observed after an immediately prior subculturing if the cells are seeded at a cell density of not less than 300 cells/mm^2 and not more than 500 cells/mm^2;

(c) cell density to identify when the cell density of the human corneal

endothelial cells and/or human corneal endothelial precursor cells is not less than 900 cells/mm^2 and not more than 2500 cells/mm^2 if the cells are seeded at a cell density of not less than 300 cells/mm^2 and not more than 500 cells/mm^2; and

(d) a time period between the evaluation and an immediately prior subculturing to determine if the time is not less than 4 days and not more than 14 days if the cells are seeded at a cell density of not less than 300 cells/mm^2 and not more than 500 cells/mm^2; and

placing at least a portion of the cells from the remainder cell population for preservation in a storage media when the cell population for evaluation meets one or more of the evaluation criteria of (a), (b), (c), or (d); or

placing at least a portion of the cells from the remainder cell population in a culture vessel comprising a culture media when the cell population for evaluation fails to meet each of the evaluation criteria of (a), (b), (c), or (d), and culturing the remainder cell population to meet one or more of the evaluation criteria of (a), (b), (c), or (d).

16. The method of Claim 15, wherein the culture media comprises a ROCK inhibitor, and wherein the culture media comprises a concentration of epidermal growth factor (EGF) below a threshold concentration that will cause a transformation of the cells.

17. The method of Claim 15 or 16, wherein the culture media comprises a ROCK inhibitor, and wherein the culture media comprises a concentration of epidermal growth factor (EGF) of less than 2 ng/mL.

18. The method of Claim 17, wherein the culture media does not include EGF.

19. The method according to any one of Claims 15 to 18, wherein the human corneal endothelial cells and/or human corneal endothelial precursor cells are created using, as a source, cells selected from a group consisting of corneal endothelial cell-

derived cells, pluripotent stem cells, mesenchymal stem cells, corneal endothelial precursor cells harvested from a corneal endothelium, cells harvested from a corneal endothelium, and corneal endothelial precursor cells and corneal endothelial-like cells produced via a direct programing method.

20. A method according to any one of Claim 11 to 19, further comprising removing the preserved cells from preservation and returning them to a culture vessel for additional culturing, wherein the cells subjected to additional culturing meet one or more of the following criteria:

(1) no fibroblast, foreign matter, discoloration, or other abnormality is found upon an external visual inspection being performed using phase-contrast images;

(2) the cell survival rate is 70% or more in Trypan blue dye exclusion assay;

(3) PDGF-BB concentration of the cell supernatant is 100 pg/mL or more in a purity test performed via an ELISA;

(4) the percentage content of effector cells provided with human corneal endothelium function is greater than 90%, wherein the effector cell is a cell having the same type of corneal endothelial characteristics as human corneal endothelial cells when present in the human body;

(5) the pumping function of Na^+/K^+ ATPase is positive;

(6) the barrier function of ZO-1 is positive; and

(7) the human corneal endothelial cell density (ECD) is 1500 cells /mm^2 or greater.

21. A method according to any one of Claims 11 to 19, wherein cells that are removed from the preservation state are suitable for delivery to the eye of a subject to treat an ocular disease or injury.

22. A method according to any one of Claims 11 to 19, wherein cells that are

removed from the preservation state are suitable for preparation of a medicament for delivery to the eye of a subject to treat an ocular disease or injury.

23. A method according to any one of Claims 11 to 19, wherein cells that are removed from the preservation state are suitable for use in the treatment of an ocular disease or injury.

24. The method of any one of Claims 21 to 23, wherein the ocular disease is a corneal disease or injury.