

A STORAGE METHOD OF HUMAN CORNEAL ENDOTHELIAL CELLS AND/OR
HUMAN CORNEAL ENDOTHELIAL PRECURSOR CELLS

ABSTRACT OF THE DISCLOSURE

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Human corneal endothelial cells and/or human corneal endothelial precursor cells are preserved with a high survival rate of these cells being maintained, and the occurrence rate of contaminated cells in post-preservation culturing is suppressed. A storage method of human corneal endothelial cells and/or human corneal endothelial precursor cells is 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.

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(a) 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.

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(b) 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) When the cell density of the human corneal endothelial cells and/or human corneal endothelial precursor cells is not less than 900 cells/mm² and not more than 2500

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cells/mm².

(d) When the number of culturing days since the most recent subculturing is not less than 4 days and not more than 14 days.

5 [FIG. 7]