[Non-patent Literature 6] Folia Histochemica Et Cytobiological Vol.44, No.4, pp. 215-230, 2006

[Non-patent Literature 7] J Cell Biochem. Vol.64, 2, pp. 278-94, 1997

[Non-patent Literature 8] Molecular Human Reproduction Vol.8, No3.3, pp. 228-236, 2002

[Non-patent Literature 9] J Leukoc Biol. Vol.76, No.1, pp. 152-61, 2004

DISCLOSURE OF THE INVENTION

[0012a] In one aspect, there is provided a medium when used in the passage culture of mammalian somatic cells comprising an agonist for an endothelial cell differentiation gene (Edg) family receptor and an agonist for a serotonin receptor, wherein said medium is a serum-free medium.

[0012b] In another aspect, there is provided an additive when used in a medium for passage culture of mammalian somatic cells, said additive comprising an agonist for an endothelial cell differentiation gene (Edg) family receptor and an agonist for a serotonin receptor, wherein said medium is a serum-free medium.

[0012c] In a further aspect, there is provided a method for passage-culturing mammalian somatic cells, said method comprising culturing of the mammalian somatic cells in the medium as defined above.

PROBLEMS TO BE SOLVED BY THE INVENTION

[0013]

The present invention aims to provide a medium for mammalian somatic cells with which mammalian somatic cells can be grown effectively when the mammalian somatic cells are cultured, while reducing the amount of serum to be added to the medium as much as possible or without adding serum thereto, and to provide an additive to constitute the medium.

MEANS FOR SOLVING THE PROBLEMS

[0014]

The present inventors intensively studied to discover that blending of a ligand for an endothelial cell differentiation gene (Edg) family receptor and a ligand for a serotonin receptor to a medium allows effective growth of somatic cells of mammals even in cases where the medium does not contain serum at all or contains only a small amount thereof, thereby completing the present invention.

[0015]

That is, the present invention provides a medium for mammalian somatic cells, which medium contains a ligand for an endothelial cell differentiation gene (Edg) family receptor and a ligand for a serotonin receptor. Further, the present invention provides an additive for a medium for mammalian somatic cells, which additive contains a ligand for an endothelial cell differentiation gene (Edg) family receptor and a ligand for a serotonin receptor.

EFFECT OF THE INVENTION

[0016]

The medium and the additive for a medium of the present invention enable efficient growth of somatic cells under conditions where serum, which has been conventionally added to the medium when somatic cells were cultured, is not used or the amount thereof to be added is reduced. Therefore, problems which have occurred by usage of serum, for example, the burden of a patient, contamination of infectious pathogens and the like can be solved. Further, also in cases where serum is added, variations in the growing ability of cells due to variations among the lots of sera to be added can be suppressed. Further, also by using human serum as the serum, somatic cells can be grown efficiently. Further, since somatic cells can be cultured using a reduced amount of serum by the method for culturing of the present invention, cultured somatic cells having a stable quality can be provided. Therefore, the obtained cultured somatic cells can be made to be those having a stable quality wherein the problem of contamination of infectious pathogens is minimized.