restore functional hepatocytes is desired.

[0007]

Studies by Dezawa, one of the present inventors, has revealed that pluripotent stem cells (Multilineage-differentiating Stress Enduring cells; Muse cell), which exist in mesenchymal cell fractions and can be obtained without gene transferor induction by cytokines or the like and express SSEA-3 (Stage-Specific Embryonic Antigen-3) as a surface antigen, can be responsible for the pluripotency possessed by the mesenchymal cell fractions, and can be applied to disease treatment aimed at tissue regeneration (Patent Document 1; Non-Patent Documents 3 to 5). However, it has not been demonstrated whether the use of Muse cells in prevention and/or treatment of fibrosis could provide the expected therapeutic effects.

PRIOR ART REFERENCES

PATENT DOCUMENT

[0008]

Patent Document 1: Japanese Patent No. 5185443

NON-PATENT DOCUMENTS

[0009]

Non-Patent Document 1: Transplantation 2004; 78: 83-88

Non-Patent Document 2: The Journal of surgical research 2014; 186: 408-416

Non-Patent Document 3: Proc. Natl. Acad. Sci. USA, 2010; 107: 8639-8643

Non-Patent Document 4: Proc. Natl. Acad. Sci. USA, 2011; 108: 9875-9880

Non-Patent Document 5: Nat. Protc., 2013; 8: 1391-1415

SUMMARY

[0009a] In one aspect, there is provided use of a therapeutically effective amount of a SSEA-3-positive pluripotent stem cell derived from a mesenchymal tissue in a living body or a cultured mesenchymal cell in the manufacture of a cell product for prevention and/or treatment of organ fibrosis, wherein said organ fibrosis is a fibrosis occurring at least one selected from the group consisting of in digestive organ, respiratory organ and on skin. In another aspect, there is provided use of a therapeutically effective amount of a SSEA-3-positive pluripotent stem cell derived from a mesenchymal tissue in a living body or a cultured mesenchymal cell in the manufacture of a cell product for inhibition of tissue fibrosis and/or lysis of fibrotic tissue, wherein said tissue is at least one selected from the group consisting of digestive tissue, respiratory tissue and skin.

PROBLEMS TO BE SOLVED BY THE INVENTION

[0010]

An object of the present invention is to provide a cell product for prevention and/or treatment of organ fibrosis.

MEANS FOR SOLVING THE PROBLEMS

[0011]

The present inventors have found that in a liver fibrosis model using an

CLAIMS

1. Use of a therapeutically effective amount of a SSEA-3-positive pluripotent stem cell derived from a mesenchymal tissue in a living body or a cultured mesenchymal cell in manufacture of a cell product for prevention and/or treatment of organ fibrosis, wherein said organ fibrosis is a fibrosis occurring at least one selected from the group consisting of in digestive organ, respiratory organ and on skin.

2. The use of claim 1, wherein said organ fibrosis is a fibrosis occurring in digestive organ.

3. The use of claim 2, wherein said organ fibrosis is liver fibrosis.

4. The use of claim 3, wherein said pluripotent stem cell is capable of differentiating into a cell expressing a hepatoblast marker or a hepatocyte marker.

5. The use of claim 3 or 4, which improves serum total bilirubin and/or serum albumin levels when administered to a subject, as compared with that of non-administration group.

6. The use of claim 1, wherein said organ fibrosis is a fibrosis occurring on skin.

7. The use of claim 1, wherein said organ fibrosis is a fibrosis occurring in lung.

8. The use of any one of claims 1 to 7, wherein said pluripotent stem cell has all of the following characteristics:

(i) having low or no telomerase activity;
(ii) capable of differentiating into any of tridermic cells;
(iii) showing no neoplastic proliferation; and
(iv) having self-renewal capacities.

9. Use of a therapeutically effective amount of a SSEA-3-positive pluripotent stem cell derived from a mesenchymal tissue in a living body or a cultured mesenchymal cell in manufacture of a cell product for inhibition of tissue fibrosis and/or lysis of fibrotic tissue, wherein said tissue is at least one selected from the group consisting of digestive tissue, respiratory tissue and skin.