CLAIMS

[Claim 1]

A method for producing a sheet-shaped cell culture, comprising

a step of freezing cells,

a step of thawing the frozen cells, and

a step of forming a sheet-shaped cell culture,

wherein the cells are human skeletal myoblasts, and the sheet-shaped cell culture is formed after the step of thawing the cells substantially without proliferation of the cells.

[Claim 2]

The method according to claim 1, wherein the cells are autologous cells or allogeneic cells.

[Claim 3]

The method according to claim 1 or 2, wherein the cells are autologous cells.

[Claim 4]

The method according to any one of claims 1 to 3 which further comprises a step of recovering the sheet-shaped cell culture after the step of forming the sheet-shaped cell culture, wherein the step of thawing the cells is carried out within 48 hours before the step of recovering the sheet-shaped cell culture.

[Claim 5]

The method according to any one of claims 1 to 4 which comprises a step of proliferating the cells before the step of freezing the cells.

[Claim 6]

The method according to any one of claims 1 to 5 which comprises a step of washing the cells after the step of thawing the frozen cells and before the step of forming the sheet-shaped cell culture.

[Claim 7]

The method according to any one of claims 1 to 6, wherein the obtained sheet-shaped cell culture has an activity selected from the group consisting of cytokine productivity, engrafting ability, angiogenesis ability and tissue regeneration ability higher than the activity of a sheet-shaped cell culture produced by a method which does not comprise a step of freezing cells and a step of thawing frozen cells.

[Claim 8]

The method according to claim 7, wherein the cytokine is selected from the group consisting of HGF and VEGF.

[Claim 9]

A sheet-shaped cell culture produced by the method according to any one of claims 1 to 8.

[Claim 10]

A pharmaceutical composition comprising the sheet-shaped cell culture according to claim 9.