the results for the control, results obtained by the experiment on the therapeutic effect of the CD106+ rat fibroblasts on the rat chronic heart failure model were used. In terms of the results for the group in which the CD106+ human fibroblasts (2.0×10^6 cells/50 μL) were administered, the results obtained in Table 2 were used.

The results for the main items (LVEF, LVFS, LVEDV, and LVESV) and the results for the sub-items (LVIDd, LVIDs, IVSTd, LVPWTd, and HR) are shown in Tables 19 to 27.

[0096]

[Table 19]

Table 19: Trend of Left Ventricular Ejection Fraction (LVEF) of the Rat Heart Failure Model due to the difference in dosage of the CD106+ Human Fibroblasts (represented as “VCF” in the table)

Groups	Animal Number	LVEF (%) at each week after cell injection				
		0W	2W	4W	6W	8W
+ VCF (2.0e6 cells/50 μL)	110	50.50	53.10	57.50	59.80	66.60
	111	48.80	43.30	56.20	63.70	64.50
	112	42.50	44.20	46.80	59.70	61.10
	113	49.00	53.90	56.80	58.90	57.20
	Mean	47.70	48.63	54.33	60.53	62.35
	S.E.	1.77	2.83	2.52	1.08	2.06
+ VCF (5.0e5 cells/50 μL)	201	50.90	47.70	49.30	52.20	55.40
	202	51.30	47.90	50.40	52.20	62.70
	203	47.50	44.80	50.90	51.70	57.00
	204	53.70	48.90	55.70	54.30	61.20
	Mean	50.85	47.33	51.58	52.60	59.08
	S.E.	1.28	0.88	1.42	0.58	1.72
control	101	50.90	42.50	41.60	N.D.	39.10
	102	49.40	43.90	36.10	N.D.	33.20
	103	42.10	37.50	32.70	N.D.	27.70
	104	53.20	43.40	36.60	N.D.	28.70
	Mean	48.90	41.83	36.75	N.D.	32.18
	S.E.	2.40	1.47	1.83	N.D.	2.60

[0097]

CLAIMS

1. An injectable composition for treatment of a cardiac disease, the composition comprising fibroblasts, wherein the fibroblasts contain heart-derived CD106-positive fibroblasts in an amount of 5.0×10^5 cells or more.

2. An injectable composition for treatment of a cardiac disease, the composition comprising fibroblasts, wherein the fibroblasts contain CD 106-positive fibroblasts whose number of the CD 106-positive fibroblasts is increased from natural heart-derived fibroblasts.

3. The injectable composition according to claim 1 or 2, wherein the fibroblasts contain CD90-positive fibroblasts.

4. The injectable composition according to any one of claims 1 to 3, wherein the fibroblasts contain connexin 43-positive fibroblasts.

5. A method for producing an injectable composition for treatment of a cardiac disease, the method comprising the steps of:

providing natural heart-derived fibroblasts;

sorting CD106-positive fibroblasts from the fibroblasts; and

mixing the CD 106-positive fibroblasts whose number of the CD 106-positive fibroblasts is increased from the natural heart-derived fibroblasts obtained by the sorting and the other components which are physically acceptable as an injectable composition.

6. The method for producing an injectable composition according to claim 5, further comprising

sorting CD90-positive fibroblasts from the fibroblasts.

7. The method for producing an injectable composition according to claim 5 or 6, wherein the fibroblasts contain connexin 43-positive fibroblasts.