CLAIMS

1. A cancer tissue-derived cell mass, which is

a separated product that is separated from a cancer tissue obtained from an individual as a mass containing at least three cancer cells or

a cultured product of the separated product, and

which can retain a proliferation ability in vitro.

2. The cancer tissue-derived cell mass according to claim 1, which is obtained by a process comprising the step of treating a cancer tissue obtained from an individual with a collagenase-containing enzyme.

3. The cancer tissue-derived cell mass according to claim 2, which is obtained by a process comprising the step of treating a cancer tissue obtained from an individual with a mixed enzyme comprising at least one protease selected from the group consisting of C. histolyticum neutral protease, thermolysin, and dispase; and at least one collagenase selected from the group consisting of collagenase I, collagenase II, and collagenase IV.

4. The cancer tissue-derived cell mass according to claim 3, wherein the mixed enzyme is LIBERASE BLENDZYME 1®.

5. A cancer tissue-derived cell mass, which comprises a

population of at least three cancer cells and which takes an almost spherical or ellipsoidal form.

6. A cancer tissue-derived cell mass, which contains a population of at least three cancer cells and a basement membrane-like material present on the circumference surface of the population of the cancer cells, and which takes an almost spherical or ellipsoidal form.

7. The cancer tissue-derived cell mass according to any one of claims 1 to 6, wherein the cell mass does not contain substantially any cells other than cancer cells.

8. The cancer tissue-derived cell mass according to claim 6 or 7, wherein the basement membrane-like material is laminin.

9. The cancer tissue-derived cell mass according to any one of claims 1 to 8, which has a diameter of 40 μm to 250 μm.

10. The cancer tissue-derived cell mass according to any one of claims 1 to 9, wherein the cancer cell is derived from an epithelial cancer cell.

11. The cancer tissue-derived cell mass according to claim 10, wherein the cancer cell is derived from colon cancer, ovarian cancer, breast cancer, lung cancer, prostate cancer, kidney cancer, bladder cancer, pharyngeal cancer, and pancreatic cancer.

12. A process for preparing a cancer tissue-derived cell mass, which comprises the steps of:

treating, with an enzyme, a pulverized product of a cancer tissue removed from a living body; and

selecting and collecting a mass containing at least three cancer cells among from the enzymatically treated product.

13. The process for preparing a cancer tissue-derived cell mass according to claim 12, which further comprises the step of culturing the collected component for at least three hours.

14. The process for preparing a cancer tissue-derived cell mass according to claim 12 or 13, wherein the selection and collection comprises using a sieve.

15. The process for preparing a cancer tissue-derived cell mass according to claim 12 to 14, wherein the step of selecting and collecting a mass containing at least three cancer cells is a step of collecting an oversized component using a sieve with a mesh size of 40 μm and collecting an undersized component using a sieve with a mesh size of 250 μm.

16. The preparation process according to claim 12, wherein the enzyme is a collagenase-containing enzyme.

17. The process for preparing a cancer tissue-derived cell mass

according to claim 16, wherein the enzyme is a mixed enzyme comprising at least one protease selected from the group consisting of C. histolyticum neutral protease, thermolysin, and dispase; and at least one collagenase selected from the group consisting of collagenase I, collagenase II, and collagenase IV.

18. The process for preparing a cancer tissue-derived cell mass according to claim 17, wherein the mixed enzyme is LIBERASE BLENDZYME 1®.

19. The cancer tissue-derived cell mass , which is obtained by the preparation process according to any one of claims 12 to 18.

CLAIMS

1. A process for preparing a cancer tissue-derived cell mass comprising the steps of:

treating, with a collagenase-containing enzyme, a pulverized product of a cancer tissue removed from a living body;

selecting and collecting a mass containing at least three cancer cells having a diameter or a long diameter of 20 μm to 500 μm or volume average particle size of 20 μm to 500 μm from the enzymatically treated product with a process for assorting the size; and

culturing the collected mass to obtain a cultured product that takes an almost spherical or ellipsoidal form.

2. The process for preparing a cancer tissue-derived cell mass according to claim 1, wherein the cultured product that takes an almost spherical or ellipsoidal form consists of cells, 99.54% or more of which express EpCAM.

3. The process for preparing a cancer tissue-derived cell mass according to claim 1, wherein the process for assorting the size is done with the use of a sieve.

4. The process for preparing a cancer tissue-derived cell mass according to claim 1, wherein the step of selecting and collecting a mass containing at least three cancer cells is a step of collecting

and selecting an oversized component using a sieve with a mesh size of 40 μm and collecting and selecting an undersized component using a sieve with a mesh size of 250 μm.

5. The process for preparing a cancer tissue-derived cell mass according to claim 1, wherein the enzyme is a mixed enzyme comprising at least one protease selected from the group consisting of *C. histolyticum* neutral protease, thermolysin, and dispase; and at least one collagenase selected from the group consisting of collagenase I, collagenase II, and collagenase IV.

6. The process for preparing a cancer tissue-derived cell mass according to claim 1, wherein the pulverized product is in the size of about 2 mm cube.

7. The process for preparing a cancer tissue-derived cell mass according to claim 1, wherein the collagenase-containing enzyme treatment is conducted for 30 to 150 minutes, at the temperature of 25 to 39° C. under the conditions of pH 6-8.

8. The process for preparing a cancer tissue-derived cell mass according to claim 1, wherein the step for culturing is done in a serum-free media which contains EGF or bFGF in the concentration of 10 to 30% w/v based on the whole medium at least three hours.

9. The process for preparing a cancer tissue-derived cell mass according to claim 1, further comprising the step for mechanically

dividing the cultured product that takes an almost spherical or ellipsoidal form.

10. The process for preparing a cancer tissue-derived cell mass according to claim 1, wherein the step of selecting and collecting a mass containing at least three cancer cells is a step of collecting and selecting an oversized component using a sieve with a mesh size of 40 μm and collecting and selecting an undersized component using a sieve with a mesh size of 250 μm with the use of a pipette.