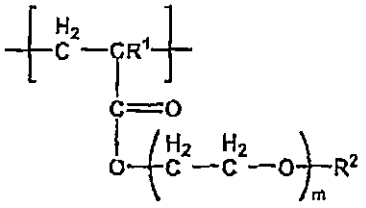
CLAIMS

1. An agent for improving cancer cell adhesiveness, consisting of:

a polymer comprising a constitutional unit represented by the following formula (1):



(1)

wherein R^1 is a hydrogen atom or a methyl group, R^2 is a methyl group or an ethyl group, and m is 1 to 3.

2. The agent for improving cancer cell adhesiveness according to claim 1, consisting of a polymer consisting of the constitutional unit represented by the formula (1).

3. The agent for improving cancer cell adhesiveness according to claim 1 or 2, wherein R^1 is a hydrogen atom, R^2 is a methyl group and m is 1.

4. The agent for improving cancer cell adhesiveness according to claim 1 or 2, wherein R^1 is a hydrogen atom, R^2 is an ethyl group and m is 2.

5. The agent for improving cancer cell adhesiveness according to claim 1 or 2, wherein R^1 is a methyl group, R^2 is a methyl group and m is 2.

6. The agent for improving cancer cell adhesiveness according to any one of claims 1 to 5, wherein a number average molecular weight of the polymer is 10,000 to 300,000.

7. A cancer cell enrichment filter consisting of:

a substrate having a plurality of through holes, wherein at least a part of the substrate is coated with the agent for improving cancer cell adhesiveness according to any one of claims 1 to 6.

8. The cancer cell enrichment filter according to claim 7,

wherein the through holes have an average pore size of 5 μm or more and less than 30 μm and an average aperture ratio of 5% or more and less than 50%.

9. The cancer cell enrichment filter according to claim 7 or 8,

wherein the substrate is made of a metal.

10. The cancer cell enrichment filter according to claim 9,

wherein the metal is selected from the group consisting of copper, nickel, a copper-nickel alloy, and copper, nickel or copper-nickel alloy having a gold-plated surface.

11. The cancer cell enrichment filter according to claim 9 or 10,

wherein the through holes are formed by an electrocasting method.

12. A method for detecting presence of cancer cells, comprising:

a filtration step of filtering peripheral blood with the cancer cell enrichment filter according to any one of claims 7 to 11.

13. The method according to claim 12, further comprising:

a step of analyzing a gene of cells having been enriched in the filtration step.

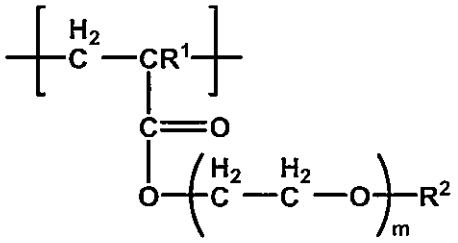
14. The method according to claim 12 or 13, further comprising:

a step of culturing cells having been enriched in the filtration step.

Claims

1. A cancer cell enrichment filter comprising:

a substrate having a plurality of through holes, wherein at least a part of the substrate is coated with an agent for improving cancer cell adhesiveness, the agent for improving cancer cell adhesiveness consisting of a polymer comprising a constitutional unit represented by the following formula (1):



(1)

wherein (i) R^1 is a hydrogen atom, R^2 is an ethyl group and m is 2 or (ii) R^1 is a methyl group, R^2 is a methyl group and m is 2.

2. The cancer cell enrichment filter according to claim 1, wherein the polymer consists of the constitutional unit represented by the formula (1).

3. The cancer cell enrichment filter according to claim 1, wherein R^1 is a hydrogen atom, R^2 is an ethyl group and m is 2.

4. The cancer cell enrichment filter according to claim 1, wherein R^1 is a methyl group, R^2 is a methyl group and m is 2.

5. The cancer cell enrichment filter according to claim 1, wherein a number average molecular weight of the polymer is 10,000 to 300,000.

6. The cancer cell enrichment filter according to claim 1,

wherein the through holes have an average pore size of 5 μm or more and less than 30 μm and an average aperture ratio of 5% or more and less than 50%.

7. The cancer cell enrichment filter according to claim 1,

wherein the substrate is made of a metal.

8. The cancer cell enrichment filter according to claim 7,

wherein the metal is selected from the group consisting of copper, nickel, a copper-nickel alloy, and copper, nickel or copper-nickel alloy having a gold-plated surface.

9. A method for detecting presence of cancer cells, comprising:

a filtration step of filtering peripheral blood with the cancer cell enrichment filter according to claim 1.

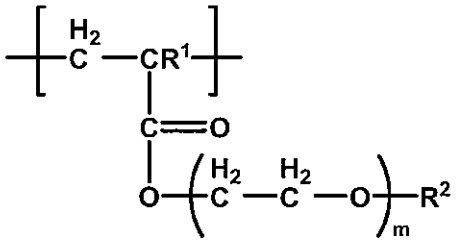
10. The method according to claim 9, further comprising:

a step of analyzing a gene of cells having been enriched in the filtration step.

11. The method according to claim 9, further comprising:

a step of culturing cells having been enriched in the filtration step.

12. A method for improving adhesiveness of cancer cells to a substrate comprising a step of coating the substrate with a polymer comprising a constitutional unit represented by the following formula (1):



(1)

wherein (i) R^1 is a hydrogen atom, R^2 is a an ethyl group, and m is 2 or (ii) R^1 is a methyl group, R^2 is a methyl group and m is 2.

13. The method according to claim 12, wherein the polymer consists of the constitutional unit represented by the formula (1).

14. The method according to claim 12, wherein R^1 is a hydrogen atom, R^2 is an ethyl group and m is 2.

15. The method according to claim 12, wherein R^1 is a methyl group, R^2 is a methyl group and m is 2.

16. The method according to claim 12, wherein a number average molecular weight of the polymer is 10,000 to 300,000.