CLAIMS

1. A method for amplifying NK cells, comprising the steps of:

preparing cell population which is comprised of NK cells;

removing T cells from the cell population which is comprised of NK cells; and

after removal of T cells, cultivating the remaining cells in a medium supplemented with 2500 to 2831 IU/mL of IL-2.

2. The method according to Claim 1, wherein

the step of removing T cells is implemented by a step of removing CD3-positive cells.

3. The method according to Claim 1 or 2, comprising a step of:

removing hematopoietic progenitor cells from the cell population.

4. The method according to Claim 3, wherein

the step of removing hematopoietic progenitor cells from the cell population is implemented by a step of removing CD34-positive cells.

5. The method according to any one of Claims 1 to 4, wherein

the medium comprise self serum of the donor, AB-type serum, and/or serum albumin.

6. The method according to any one of Claims 1 to 5, wherein

the step of preparing cell population which is comprised of NK cells is implemented by a step of separating mononuclear cells from blood cells collected from a subject.

7. The method according to Claim 6, wherein

the blood cells are collected from peripheral blood, umbilical cord blood, a bone marrow and/or a lymph node.

8. The method according to Claim 7, wherein
the blood cells are collected from peripheral blood using apheresis.

9. The method according to any one of Claims 1 to 5, wherein the cell population is prepared from at least one kind of cells selected from a group consisting of:

hematopoietic stem cells derived from any stem cells selected from a group consisting: embryonic stem cells, adult stem cells and induced pluripotent stem cells (iPS cells);

hematopoietic stem cells derived from umbilical cord blood;

hematopoietic stem cells derived from peripheral blood;

hematopoietic stem cells derived from bone marrow blood;

umbilical cord blood mononuclear cells; and

peripheral blood mononuclear cells.

10. A pharmaceutical composition for adoptive immunotherapy, comprising NK cells prepared by the method according to any one of Claims 1 to 9.

11. The pharmaceutical composition according to Claim 10, to be used for treating an infectious disease and/or a cancer.

CLAIMS

1. A method for amplifying NK cells, comprising the steps of:

preparing cell population which is comprised of NK cells;

removing T cells from the cell population which is comprised of NK cells; and

after removal of T cells, cultivating the remaining cells without feeder cells in a medium supplemented with 2500 to 2831 IU/mL of IL-2, as the only cytokine.

2. The method according to Claim 1, wherein the step of removing T cells is implemented by a step of removing CD3-positive cells.

3. The method according to Claim 1, comprising, between the step of preparing and the step of cultivating a step of:

removing hematopoietic progenitor cells from the cell population.

4. The method according to Claim 3, wherein the step of removing hematopoietic progenitor cells from the cell population is implemented by a step of removing CD34-positive cells.

5. The method according to Claim 1, wherein the medium comprise self serum of the donor, AB-type serum, and/or serum albumin.

6. The method according to Claim 1, wherein the step of preparing cell population which is comprised of NK cells is implemented by a step of separating mononuclear cells from blood cells collected from a subject.

7. The method according to Claim 6, wherein the blood cells are collected from peripheral blood, umbilical cord blood, a bone marrow and/or a lymph node.

8. The method according to Claim 7, wherein the blood cells are collected from peripheral blood using apheresis.

9. The method according to Claim 1, wherein the cell population is prepared from at least one kind of cells selected from a group consisting of:

hematopoietic stem cells derived from any stem cells selected from a group consisting: embryonic stem cells, adult stem cells and induced pluripotent stem cells (iPS cells);

hematopoietic stem cells derived from umbilical cord blood;

hematopoietic stem cells derived from peripheral blood;

hematopoietic stem cells derived from bone marrow blood;

umbilical cord blood mononuclear cells; and

peripheral blood mononuclear cells.