

polypeptide (PP)-producing cells and ghrelin-producing cells.

6. ~~A method of producing pancreatic hormone-producing cells, comprising subjecting endodermal cells to the following steps (4') and (5'):~~
- 5 ~~(4') a step of forming a cell mass from endodermal cells, and cultivating the cell mass in a suspension state in a medium~~
- ~~(5') a step of cultivating the cells obtained in the aforementioned step (4') in a medium containing a retinoic acid receptor agonist,~~
- 10 ~~an inhibitor of AMP-activated protein kinase and/or activin-receptor-like kinase-2,3,6, an inhibitor of activin-receptor-like kinase-4,5,7 and a cell growth factor~~
- ~~wherein the retinoic acid receptor agonist in step (5) is retinoic acid;~~
- 15 ~~the inhibitor of AMP-activated protein kinase and/or activin-receptor-like kinase-2,3,6 in step (5) is dorsomorphin;~~
- ~~the inhibitor of activin-receptor-like kinase-4,5,7 in step (5) is 4-[4-(1,3-benzodioxol-5-yl)-5-(2-pyridinyl)-1H-imidazol-2-yl]-benzamide;~~
- 20 ~~the cell growth factor in step (5) is basic fibroblast growth factor.~~
7. ~~A method of screening for a therapeutic drug for diabetes, comprising using the cells obtained by any one or more steps selected from the group consisting of the following steps (1) — (6):~~
- 25 ~~(1) a step of cultivating human iPS cells or human ES cells in a medium containing a Rho kinase inhibitor~~
- ~~(2) a step of cultivating the cells obtained in the aforementioned step (1) in a medium containing a GSK3 inhibitor~~
- ~~(3) a step of cultivating the cells obtained in the aforementioned~~
- 30 ~~step (2) in a medium containing GSK3 inhibitor and an activator of~~

~~activin receptor-like kinase-4,7~~

~~(4) a step of forming a cell mass from the cells obtained in the
aforementioned (3), and cultivating the cell mass in a suspension
state in a medium~~

- 5 ~~(5) a step of cultivating the cells obtained in the aforementioned
step (4) in a medium containing a retinoic acid receptor agonist, an
inhibitor of AMP-activated protein kinase and/or activin receptor-
like kinase-2,3,6, an inhibitor of~~

~~activin receptor-like kinase-4,5,7 and a cell growth factor~~
~~(6) a step of cultivating the cells obtained in the aforementioned~~
~~step (5), wherein~~
~~the activator of of activin receptor-like kinase-4,7 in step (3) is~~
5 ~~activin;~~
~~the Rho kinase inhibitor in step (1) is (+)-(R)-trans-4-(1-~~
~~aminoethyl)-N-(4-pyridyl)cyclohexanecarboxamide dihydrochloride;~~
~~the GSK3 inhibitor in step (2) and (3) is (i) 6-[[2-[[4-(2,4-~~
~~dichlorophenyl)-5-(4-methyl-1H-imidazol-2-yl)-2-~~
10 ~~pyrimidinyl]amino]ethyl]amino]nicotinonitrile and/or (ii) (2'Z,3'E)-~~
~~6-bromoindirubin-3'-oxime;~~
~~the retinoic acid receptor agonist in step (5) is retinoic acid;~~
~~the inhibitor of AMP-activated protein kinase and/or activin-~~
~~receptor-like kinase-2,3,6 in step (5) is dorsomorphin;~~
15 ~~the inhibitor of activin receptor-like kinase-4,5,7 in step (5) is~~
~~4-[4-(1,3-benzodioxol-5-yl)-5-(2-pyridinyl)-1H-imidazol-2-yl]-~~
~~benzamide;~~
~~the cell growth factor in step (5) is basic fibroblast growth~~
~~factor.~~