

Claims

1. A porcine induced pluripotent stem cell (iPSC), wherein the iPSC expresses all of the genes selected from LMNA, HTRA1, PHLDA1, FGF1 and GASK1B.

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2. A porcine iPSC according to claim 1, derived from a neural stem cell (NSC).

3. A porcine iPSC according to any preceding claim, wherein the iPSC additionally expresses all of NANOG, REX1, SSEA-3 and SSEA-4.

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4. A population of porcine iPSCs, wherein at least 50% of the iPSCs express all of the genes selected from LMNA, HTRA1, PHLDA1, FGF1 and GASK1B.

5. A population of porcine iPSCs according to claim 4, wherein at least 90% of the iPSCs express all of the genes selected from LMNA, HTRA1, PHLDA1, FGF1 and GASK1B.

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6. A population of porcine iPSCs according to either one of claims 4 or 5, wherein at least 95% of the iPSCs express all of the genes selected from LMNA, HTRA1, PHLDA1, FGF1 and GASK1B.

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7. A population of porcine iPSCs according to any one of claims 4-6, derived from neural stem cells (NSCs).

8. A method of inducing pluripotency, comprising culturing porcine neural stem cells (NSCs) in the presence of non-integrating vectors that express reprogramming factors Oct4, Sox2, cMyc and Klf4.

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9. A method according to claim 8, wherein the vectors are Sendai viral vectors.

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10. A method according to either one of claims 8 or 9, for producing porcine iPSCs that express all of the genes selected from LMNA, HTRA1, PHLDA1, FGF1 and GASK1B.