Crown insight

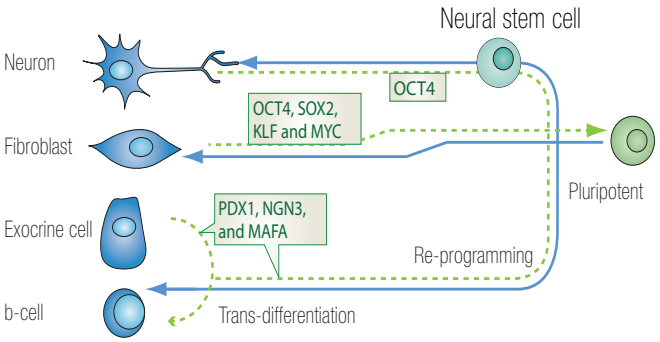
OCTOBER 2013 :

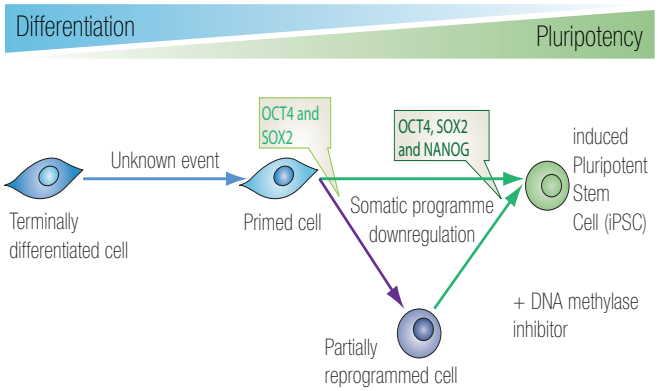
Klf4

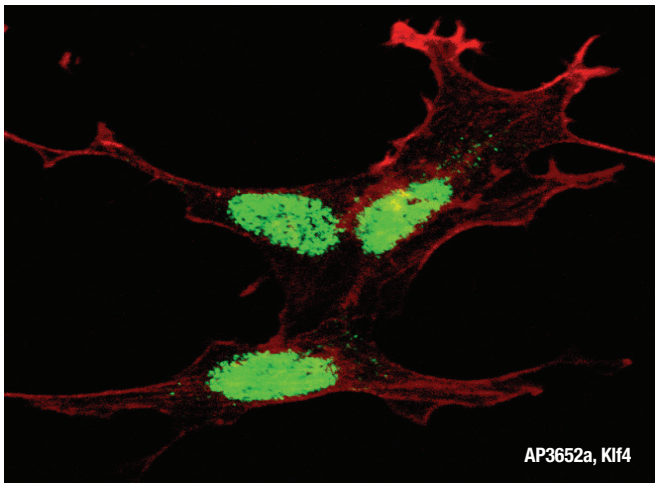
Introduction

Pluripotent cells are capable of differentiating down any given lineage to give rise to a range of different cell types. Reprogramming fibroblasts to regress back to pluripotency requires the expression of the transcription factors Oct4 (also known as Pou5f1), Sox2, Krüppel-like factor 4 (Klf4) and Myc. By contrast, neural stem cells can be effectively reprogrammed using just Oct4. Combining four factors in fibroblasts (Oct4, Sox2, c-Myc and Klf4), it was possible to generate pluripotent cells, called induced pluripotent ste (iPS) cells.

Reprogramming







Fluorescent confocal images of SY5Y cells stained with Klf4 Antibodies #AP3652a. SY5Y cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.2%, 30 min), then incubated with Klf4 (Primary Antibodies) #AP3652a (2h at room temperature). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:1000, 1h). Cytoplasmic actin was counterstained with Alexa Fluor® 555 (red) conjugated Phalloidin (5.25 µM, 25 min).

Selected Abgent Products

CAT. #	TARGET NAME
AP3652a	Klf4, Krueppel-like factor 4
AP2725f	Klf4, Krueppel-like factor 4
AP11958b	Klf4, Krueppel-like factor 4
AP2725e	Klf4, Krueppel-like factor 4
AP2046c	Pou5f1, Oct4, Oct3
AP3750a	Sox2
AP3649a	Nanog
AP3732a	Lin28a
AP1410c	Tert, telomerase
AP8742a	Nestin
AM2137b	Kit, Cd117
AM1004a	Met/Hgfr, c-Met
AP3268a	Stat5a

Visual categorization

Target associated (orange)

Autophagy Stem Cell Neurodegeneration

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