

easy iPSC

Cat No. GTX400001

Application ICC/IF, Cell Culture, RT-PCR

Reactivity Human, Mouse

Package

100 µl

PRODUCT

Summary

Minicircle DNA for iPSC Production. Easy iPSC is a simple non-viral solution for reprogramming terminally differentiated cells into pluripotent stem cells. One simple transfection delivers all four transcription factors required. This specially designed minicircle DNA plasmid is devoid of any bacterial replication sequences that would induce endogenous silencing mechanisms, significantly enhancing the transfection efficiency. The vector includes a GFP reporter to easily identify and facilitate sorting of pluripotent cells.

APPLICATION

Application Note

This protocol has been optimized for use in human adipose stem cells (hASC). Use in other cell types, such as fibroblasts, will require optimization by the researcher.

PROPERTIES

Form Liquid

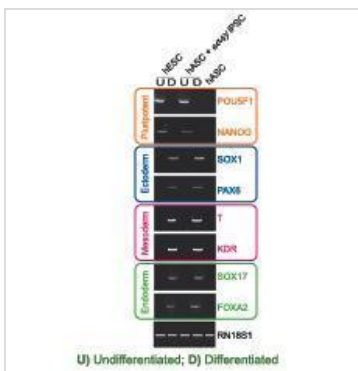
Buffer 0.1X TE Buffer

Storage Store at -20°C. Maintain under sterile conditions

Concentration 1 mg/ml (Please refer to the vial label for the specific concentration.)

Note For laboratory use only. Not for any clinical, therapeutic, or diagnostic use in humans or animals. Not for animal or human consumption.

DATA IMAGES

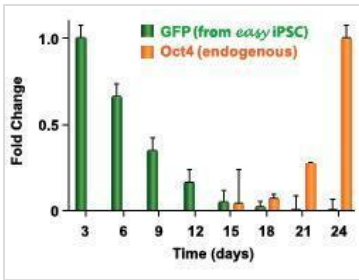


GTX400001 RT-PCR Image

RT-PCR analysis of markers for pluripotency and each germ layer confirms that easy iPSC-transfected hASC can be induced to differentiate into cells of each germ layer. Image from Jia et al. 2010. Nature Methods, 7(3).

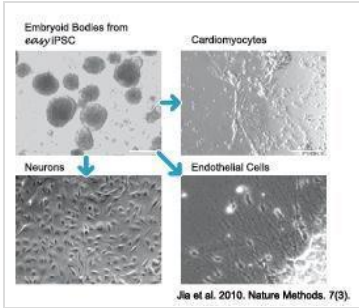


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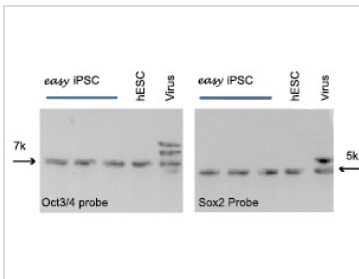


GTX400001 RT-PCR Image

easy iPSC induces the expression of endogenous OCT4 in hASC as determined by RT-PCR. Primers specific for the 3' UTR of endogenous OCT4 (GTX80102) were used for analysis. Image from Jia et al. 2010. Nature Methods, 7(3).



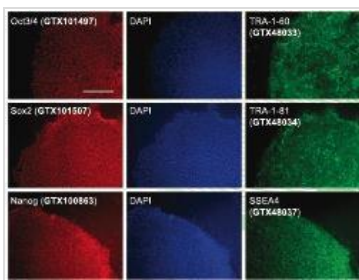
GTX400001 Image



GTX400001 Image

easy iPSC Advantage			
Comparison	easy iPSC	Plasmid	Virus
Delivery	All genes in single transfection	One single or multiple plasmid	Multiple viruses delivered
Safety	Extremely Safe	Extremely Safe	Requires BSL-2
Gene expression	Very High	Low	Very High
Duration	Increased duration	Extremely short	Permanent
Genomic Integration	No	No	Yes
Stoichiometry	Predictable 1:1:1	Complex and Unpredictable	Unpredictable
Sample Preparation	Ready to Use	Requires isolation and purification	Requires tissue culture and purification

GTX400001 Image



GTX400001 ICC/IF Image

hASC transfected with easy iPSC express pluripotency markers. Image from Jia et al. 2010. Nature Methods, 7(3).



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