

Characterization of hPSC

Cell Line Name	hFmiPS2			
Type of Cell Line	hiPSC			
Depositor (Institution)	Korea National Institute of Health			
Passage #	p23*			
Day of Cell Freezing	20210903			
Analysis	Result	Passage#	Day of analysis	
Cell viability	Pass (85.9±3 %)	p25	20211018	
Authentication (STR)	Pass	p25	20211020	
Mycoplasma test (PCR)	Pass	p25	20211019	
Microbial contamination test (Virus, Fungi, bacteria)	Pass	p25	20211014	
Karyotype (G-banding)	정상(46,XY)	p25	20211019	
CNV analysis (CMA)	Pass (arr(X,Y)x1,(1-22)x2)	p20	20210930	
Cell/colony morphology	Pass	P25	20211025	
Attached cell number after thawing	Pass (Day4, 3.11±1x10 ⁵ cells/ml)	p25	20211018	
Stem Cell Marker Expression				
· AP staining	Pass	p23	20211008	
· ICC	Pass	p23	20211015	
· qRT-PCR	Pass	p23	20211022	
Differentiation Marker Expression				
· EB formation	Pass(EB14d)	p21	20211022	
· qRT-PCR	Pass	p21	20211022	

* Freezing media : Stem-cellbanker (AMSBIO, 11897)

Cell Culture Condition

- Feeder/matrix Vitronectin (Gibco, A14700)
- Media TeSR-E8(Stem Cell Technol, ST05940)
- Passage (Cell dissociation) EDTA

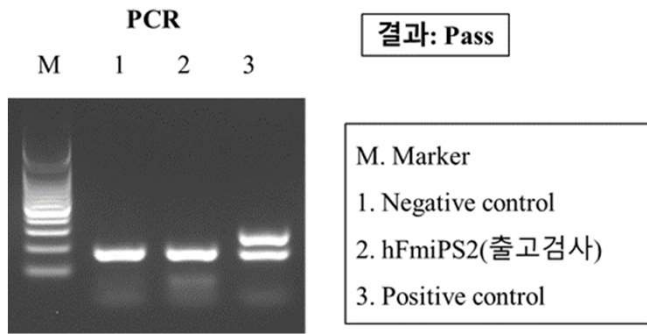
Description of the hPSC

- Parental Cell human dermal fibroblast (ScienceCell, #2320)
- Reprogram modified mRNA (mRNA reprogramming kit, Stemgent #00-0071)
OCT4, SOX2, KLF4, LIN28, c-MYC

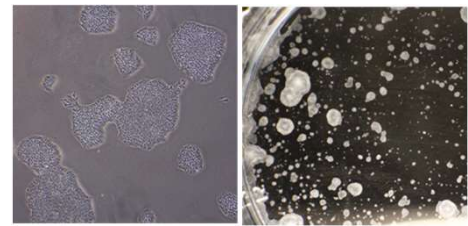
Reference

Uhm KO et al. Generation of human induced pluripotent stem cell lines from human dermal fibroblasts using a modified RNA system. Stem Cell Res 2017 Oct;24:148-150.

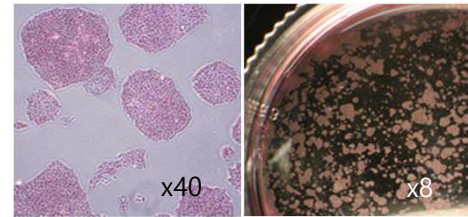
Mycoplasma contamination test



Cell attachment & morphology



AP staining



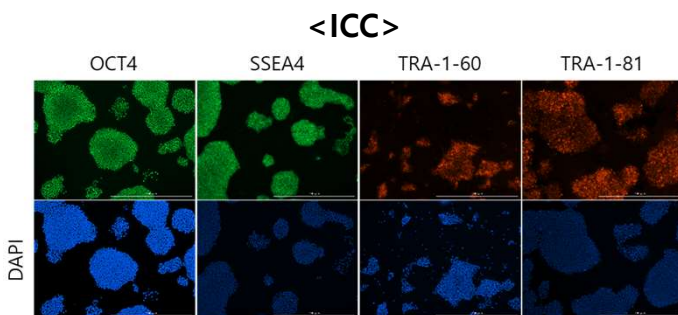
Microbial contamination test

검사결과보고서	검사결과보고서
<p>검사번호: 2019010101</p> <p>검사일자: 2019.01.01</p> <p>검사대상: hFmiPS2</p> <p>검사방법: PCR</p> <p>검사결과: 음성</p>	<p>검사번호: 2019010102</p> <p>검사일자: 2019.01.01</p> <p>검사대상: hFmiPS2</p> <p>검사방법: PCR</p> <p>검사결과: 음성</p>

Karyotype

Cytogenetic Analysis Report	Cytogenetic Analysis Report
<p>검사번호: 2019010101</p> <p>검사일자: 2019.01.01</p> <p>검사대상: hFmiPS2</p> <p>검사방법: Karyotyping</p> <p>검사결과: 정상</p>	<p>검사번호: 2019010102</p> <p>검사일자: 2019.01.01</p> <p>검사대상: hFmiPS2</p> <p>검사방법: Karyotyping</p> <p>검사결과: 정상</p>

Stem cell marker gene expression

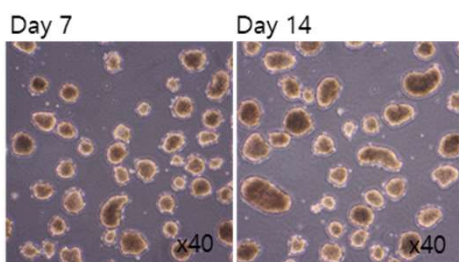


<qRT-PCR>

GENE	CT mean
NANOG	24.0
OCT4	27.0
SOX2	25.1
TERT	28.2
TDGF1	22.0
DNMT3B	21.1
GABRB3	24.6
GDF3	28.5
REX1	25.9
GAPDH	21.1

Differentiation marker gene expression

EB formation (EB14d)



<qRT-PCR>

GENE	CT mean
PAX6	26.2
SOX1	33.9
NR2F2	30.4
HNF3B	27.4
AFP	28.3
IHH	30.3
T	31.6
HAND1	31.3
ITFGA8	32.3
GAPDH	21.5