

Characterization of hPSC

Cell Line Name	NU01-EiPS07			
Type of Cell Line	hiPSC			
Depositor (Institution)	Korea National Institute of Health			
Passage #	p15*			
Day of Cell Freezing	20190910*			
Analysis	Result	Passage #	Day of analysis	
Authentication (STR)	Pass	p12	20190920	
Mycoplasma test (PCR)	Pass	p11	20190902	
Cell attachment and colony morphology	Pass	p11	20190805	
Microbial contamination test (Virus, Fungi, bacteria)	Pass	p12	20191002	
Karyotype (G-banding)	46,XY	p7	20190730	
HLA genotype	HLA-A *11:01:01G *31:01:02G HLA-B *39:01:01G *54:01:01 HLA-DRB1 *04:05:01G *08:03:02G	p12	20190927	
ABO genotype	OO	p12	20191001	
CNV analysis (CNV_Chip)	CNV calls(2) - Gain : 16p13.13 - Loss: 15q25.3	p12	20191127	
Stem Cell Marker Expression				
· AP staining	Pass	p11	20190905	
· ICC	Pass	p12	20190923	
· qRT-PCR	Pass	p11	20191021	
Differentiation Marker Expression				
· EB formation	Pass (EB14d)	p12	20190910	
· qRT-PCR	Pass	p12	20191021	
* Freezing media : Stem Cell Banker (Amsbio, 11897)				

Cell Culture Condition

- Feeder /matrix · Vitronectin (Gibco, A14700)
- Media · TeSR-E8 Basal Medium(Stem Cell Technol, #05990)
- Passage (Cell dissociation) · EDTA/Gentle Cell Dissociation Reagent (Stem cell Technol, 07174)

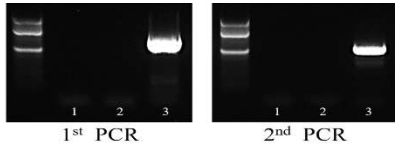
Description of the hPSC

- Parental Cell · Urine derived cell (NU01)
- Reprogram · Episomal Vector (SOP#202.1)
- Epi5 Episomal iPSC Reprogramming Kit (Thermo Fisher, A15960)
- Oct4, Sox2, Klf4, c-Myc, Lin28, p53DD

Reference

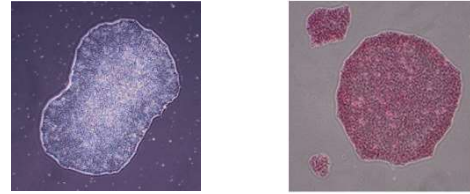
Im YS et al. Generation of integration-free induced pluripotent stem cell line (KSCBi012-A) from urinary epithelial cells of a healthy male individual. Stem Cell Res. 2022 Aug;63:102841.

Mycoplasma contamination test



- 1. Negative control
- 2. NU01-EiPS07(TeSR-E8 + Vitronectin, p12)
- 3. Positive control

Cell Morphology AP staining

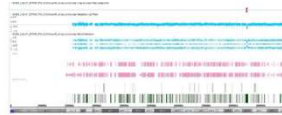


Microbial contamination test

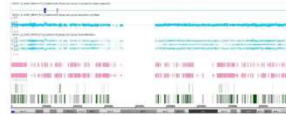
CNV analysis



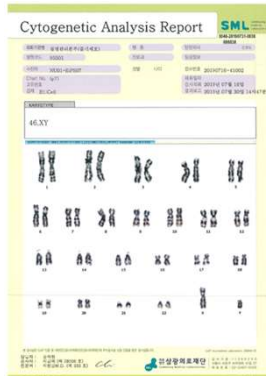
NU01-EiPS07 chromosome 15q25.3(Loss)



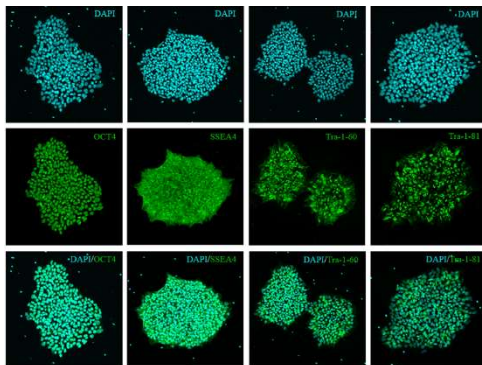
NU01-EiPS07 chromosome 16p13.13(Gain)



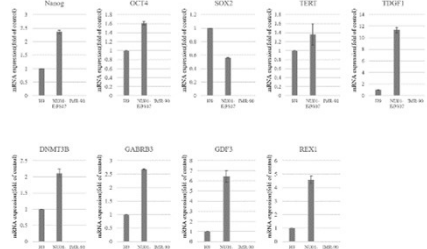
Karyotype



Stem cell marker gene expression <ICC>



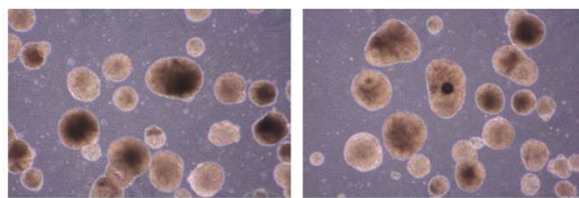
<qRT-PCR>



Differentiation marker gene expression

<EB formation>

EB Day 14



<qRT-PCR, EB 14d>

Gene	Ct mean
ACTB	24.2
PAX6	29.1
SOX1	34.9
HNF3B	not detected
AFP	35.4
T	35.3
MYOG	33.75

