

Characterization of hPSC

Cell Line Name	PB01-EiPS21-EGFP05		
Type of Cell Line	hiPSC		
Depositor (Institution)	Korea National Institute of Health		
Passage #	p41*		
Day of Cell Freezing	20221111		
Analysis	Result	Passage #	Day of analysis
Cell viability	Pass(52.3%) Live cell# : 8.71x10 ⁵ cell/ml	p41	20221123
Authentication (STR)	Pass	p42	20221208
Mycoplasma test (PCR)	Pass	p42	20221227
Cell attachment and colony morphology	Pass	p42	20221128
Bacterial, and fungal contamination test	Pass	p42	20221220
Viral contamination test	Pass	p42	20221208
Karyotype (G-banding)	46,XY	p42	20221213
Stem Cell Marker Expression			
· AP staining	Pass (positive)	p41	20211229
· ICC	Pass (positive)	p41	20220104
· qRT-PCR	Pass (positive)	p41	20210624
Differentiation Marker Expression			
· EB formation	Pass (EB14d)	p40	20210729
· qRT-PCR	Pass (positive)	p40	20210804
GFP Expression	Pass (positive)	p40	20210729

* Freezing media : Stem-cellbanker (Zenoaq #BLC-3-1)

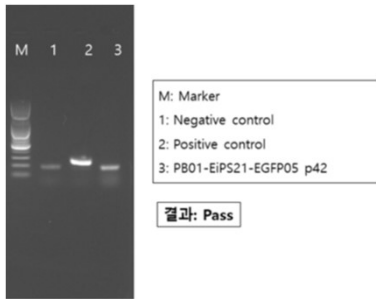
Cell Culture Condition

- Feeder(matrix) : - Vitronectin (Gibco, A14700)
- Media : - StemFlex (Gibco/Thermo-Fisher A3349401)
- Passage (Cell dissociation) - EDTA or Gentle Cell Dissociation Reagent (Stem cell Technol, 07174)
- EZPassage (Thermo-Fisher 23181010)

Genetic Modification

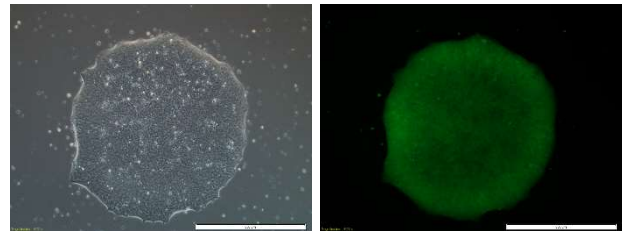
- Parental Cell - PB01-EiPSC21 (Korea National Institute of Health)
PBMC
- Genetic modification - CRISPR/Cas9, EGFP knock-in, AAVS1 locus

Mycoplasma contamination test



Cell attachment, Morphology & GFP expression

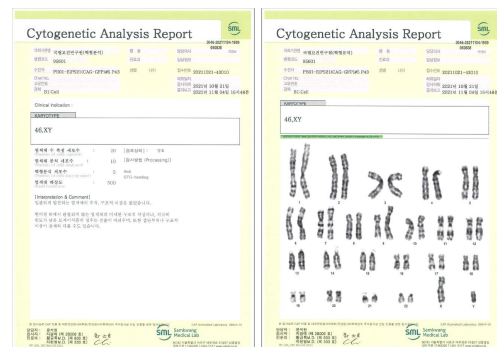
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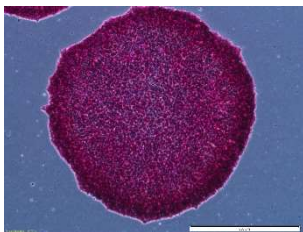
Microbial contamination test

검사결과보고서	검사결과보고서
<p>검사번호: 2021071307</p> <p>검사일자: 2021.07.13</p> <p>검사대상: PB01-EiPS21-EGFP05 p42</p> <p>검사항목: Microbial Contamination Test</p> <p>검사결과: Pass</p>	<p>검사번호: 2021071307</p> <p>검사일자: 2021.07.13</p> <p>검사대상: PB01-EiPS21-EGFP05 p42</p> <p>검사항목: Microbial Contamination Test</p> <p>검사결과: Pass</p>

Karyotype

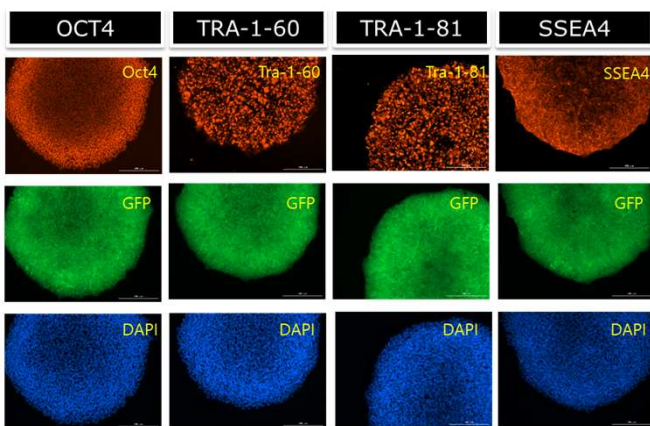


AP staining



Stem cell marker gene expression

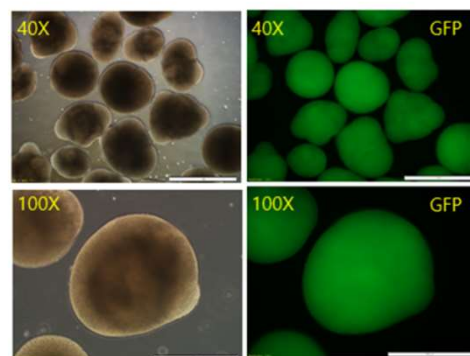
<ICC>>



Differentiation

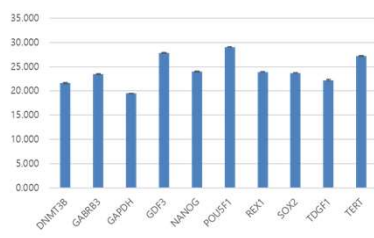
<EB formation>

EB 14day

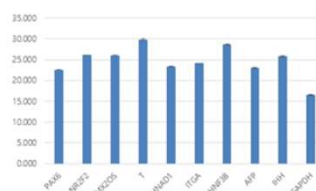


<qRT-PCR>

Gene	Ct mean
NANOG	24.001
OCT4	29.030
Sox2	23.681
TERT	27.166
TDGF1	22.212
DNMT3B	21.602
GABRB3	23.416
GDF3	27.858
REX1	23.906
GAPDH	19.489



<qRT-PCR>



Gene	Ct mean
PAX6	22.599
NR2F2	26.125
EMX2OS	26.059
T	29.881
HAND1	23.282
ITGA8	24.126
HNF3B	28.655
AFP	23.053
IHH	25.774
GAPDH	16.554