

줄기세포주 특성분석 결과보고서

| Cell Line Name | LQT08-hiPSC | | |
|---|-------------------------------------|-----------|-----------------|
| Alternative name | KSCBi015-A, DPHCi01, 01_P_CMC-SiPS1 | | |
| Type of Cell Line | hiPSC | | |
| Depositor (Institution) | Korea National Institute of Health | | |
| Passage # | p15* | | |
| Day of Cell Freezing | 20180906 | | |
| Analysis | Result | Passage # | Day of analysis |
| Cell viability | Pass(89.6±1.5%) | p15 | 20191011 |
| Authentication (STR) | Pass | p16 | 20191017 |
| Mycoplasma test (PCR) | Pass | p16 | 20191017 |
| Cell attachment and colony morphology | Pass | p13 | 20190304 |
| Microbial test (Viral, bacterial, and fungal contamination) | Pass | p16 | 20191106 |
| Karyotype (G-banding) | 46,XX | p16 | 20191029 |
| Stem Cell Marker Expression | | | |
| · AP staining | Pass (positive) | p13 | 20190308 |
| · ICC | Pass (positive) | p13 | 20190313 |
| · qRT-PCR | Pass (positive) | P14 | 20190315 |
| Differentiation Marker Expression | | | |
| · EB formation | Pass (EB14d) | p13 | 20190318 |
| · qRT-PCR | Pass (positive) | P13 | 20190328 |
| Disease related mutation | KCNQ1 (c.569G>A) | p6 | 20210609 |

Cell Culture Condition

- Feeder/matrix Vitronectin (Gibco, A14700)
- Media TeSR-E8 (Stem Cell Technol, ST05940) (계대 배양 시 Y27632 사용)
- Passage (Cell dissociation) EDTA/Gentle Cell Dissociation Reagent (Stem cell Technol, 07174)

Description of the hPSC

- Parental Cell (Source cell) Peripheral Blood Mononuclear Cell
(Disease information)
- long QT syndrome type 1, heterozygote mutation in the KCNQ1 gene.
- Reprogram
- Sendai virus (CytoTune-iPS Reprogramming kit, Invitrogen)
 - OCT3/4, SOX2, KLF4, c-MYC

Reference

Lee Y et al. Establishment of a human induced pluripotent stem cell line, KSCBi015-A, from a long QT syndrome type 2 patient harboring a KCNH2 mutation. Stem Cell Res. 2021 Oct 13;57:102570.

