

Characterization of hPSC

Cell Line Name	LQT01-hiPSC		
Alternative name	KSCBi014-A, DPHCi01, 01_P_CMC-SiPS1		
Type of Cell Line	hiPSC		
Depositor (Institution)	Korea National Institute of Health		
Passage #	p15*		
Day of Cell Freezing	20190906		
Analysis	Result	Passage #	Day of analysis
Cell viability	Pass(88.0±1.6%)	p15	20191127
Authentication (STR)	Pass	p16	20191001
Mycoplasma test (PCR)	Pass	p16	20191010
Cell attachment and colony morphology	Pass	p13	20190320
Microbial contamination test (Virus, Fungi, bacteria)	Pass	p16	20191015
Karyotype (G-banding)	46,XX	p16	20191008
Stem Cell Marker Expression			
· AP staining	Pass (Positive)	p11	20190107
· ICC	Pass (Positive)	p11	20190111
· qRT-PCR	Pass (Positive)	p11	20190104
Differentiation Marker Expression			
· EB formation	Pass (EB14d)	p13	20190321
· qRT-PCR	Pass (Positive)	p13	20190321
Disease related mutation	KCNH2 (c.453delC)		

* Freezing media : STEMCELL BANKER

Cell Culture Condition

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

Descriptions

- Parental Cell (Source cell) Peripheral Blood Mononuclear Cell (Disease information)
- long QT syndrome type 2, mutation in the *KCNH2* 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, KSCBi014-A, from a long QT syndrome type 2 patient harboring a *KCNH2* mutation. Stem Cell Research 57:102570 (2021)

