

Characterization of hPSC

Cell Line Name	DKH090i-A	[Vial label : DK-090i #1]	
Alternative Name	DK-090i		
Type of Cell Line	hiPSC		
Depositor (Institution)	Korea National Institute of Health		
Passage #	p10*		
Day of Cell Freezing	20180618		
Analysis	Result	Passage #	Day of analysis
Cell viability	Pass(81.43%)	p11	20180705
Authentication (STR)	Pass	p7	20180612
Mycoplasma test (PCR)	Pass	p8	20180622
Cell attachment and colony morphology	Pass	p13	20180724
Microbial contamination test (Virus, Fungi, bacteria)	Pass	p7	20180724
Karyotype (G-banding)	46,XX	p7	20180612
CNV analysis	CNV calls (case) - Pathogenic (2) [14q32.33, 15q13.3]	p8	20181015
Stem Cell Marker Expression			
· AP staining	Pass (Positive)	p13	20180719
· ICC	Pass (Positive)	p13	20180727
· qRT-PCR	Pass (Positive)	p7	20180615
Differentiation Marker Expression			
· EB formation	Pass (EB14d)	p12	20180727
· qRT-PCR	Pass (Positive)	p12	20180801

* Freezing media : mFreSR (Stem Cell Technol, ST#05855)

Cell Culture Condition

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

Description of the hPSC

Parental Cell PBMC
 Reprogram Sendai virus (CytoTune-iPS Reprogramming kit, Invitrogen)
 OCT3/4, SOX2, KLF4, c-MYC

- Eye disease, Leber congenital amaurosis (LCA)
- Mutation : Compound heterozygote for NMNAT1, c.709C>T and Exon 4 and 5 deletion
- Rim JH, Lee ST, Gee HY, et al. Accuracy of next-generation sequencing for molecular diagnosis in patients with infantile nystagmus syndrome. *JAMA Ophthalmol.* 2017;135(12):1376-1385. doi:10.1001/jamaophthalmol.2017.4859 ; Errors in table 2 [published online September 26, 2019]. *JAMA Ophthalmol.* doi:10.1001/jamaophthalmol.2019.3190

Reference

Park et al, Generation of a human induced pluripotent stem cell line from a patient with Leber congenital amaurosis. *Stem Cell Res* 2020 Mar;43:101725.

