



◆ **GLKVs31 (iPS cells expressing the second highest HLA in Japan※1)**

Clone ID	GLKVs31	Product	Human iPS cells
Source	Cord blood, Human	Race	Japanese
Passage No.	7	Gender	Male
Lot No.	20171005-32	Manufacture Dates	Oct. 5 th , 2017
Culture medium	StemFit AK03N	Substrate	iMatrix-511MG
Culture Method	Feeder-free (※2)		
Plasmids for reprogramming	pCE-hSK, pCE-hUL, pCE-hOCT3/4, pCE-mp53DD, pCXB-EBNA1		
Use and Provision of this cell stock	Please check our web site ; https://www.cira-foundation.or.jp/e/project/stock.html		

(※1) Reference; Okita, *et. al.*, Nat Methods. 2011 8(5): 409-412

(※2) Reference; Nakagawa, *et. al.*, Nat Biotechnol. 2008 26(1):101-106

Test Result

Test	Method	Result
Sterility	BacT/ALERT	Negative
Mycoplasma	PCR	Negative
Endotoxin	LAL	≤ 5 EU/mL
Virus (HBV, HCV, HIV, HTLV, Parvovirus B19)	PCR	Negative
HLA typing (HLA-A, B, DR)	PCR-SBT	Consistent with the donor cells
STR genotyping	PCR	Consistent with the donor cells
Morphology	Microscope	Consistent with human ES cells
Karyotype	Conventional Giemsa analysis G-banding	46,XY[20]
Plasmid remnants	qPCR	Below the limit of quantification
CNV(※3)	WGS, SNP	No de novo CNVs (>1kbp) were found in COSMIC Cancer Gene Census (ver.85) and Shibata list(※5) .
SNV/Indel(※4)	WGS, WES	No de novo non-synonymous SNVs/Indels were found in COSMIC Cancer Gene Census (ver.85) and Shibata list(※5) .
Undifferentiated markers	Microarray(※7)	<i>POU5F1</i> : 4.5%、 <i>NANOG</i> : 19.7% (Relative expression levels of <i>GAPDH</i>)
	Flow cytometry (※7)	TRA-1-60: 99.1% SSEA4: 99.7% TRA-2-49: 99.7%

Thawed postnatal cells	Counting the number of the cells with a disposable hemocytometer ^(※6,7)	1.49 × 10 ⁵ cells (Survival rate ; 73.2%)
Number of proliferating cells after thawing	Counting the number of the cells with a disposable hemocytometer after culturing for 5 days ^(※6,7) .	13.9 × 10 ⁵ cells (Number of seeded cells : 1.43 × 10 ⁵ cells)
Doubling time (h)	Counting the number of the cells ^(※6,7)	P10→P11: 31.0 P11→P12: 30.5 P12→P13: 28.8 P13→P14: 28.7 P14→P15: 35.4

(※3) CNV; Copy Number Variation

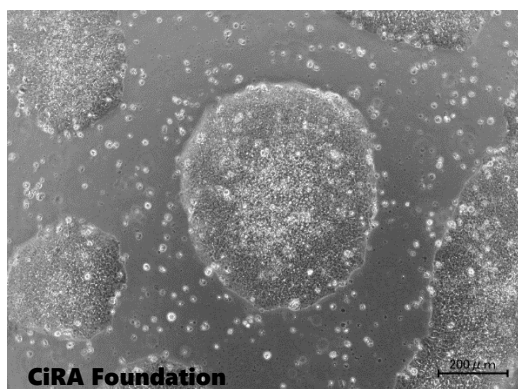
(※4) SNV/Indel; Single nucleotide variants /Insertion Deletion

(※5) The PMDA Science Board “Current Perspective on Evaluation of Tumorigenicity of Cellular- and Tissue-based Products Derived from induced Pluripotent Stem Cells (iPSCs) and iPSCs as Their Starting Materials” (Cellular- and Tissue-based Products Subcommittee, 20 August 2013)

(※6) OLYMPUS Cell Counter model R1

(※7) The result of # 1 out of 3 frozen stocks is shown.

■Image



Please contact us if you have any questions.

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