

# Certificate of Analysis (CoA) for induced Pluripotent Stem Cells

*This product is for research only*

ECACC Catalogue No: 66540015

Cell Line Name	UKKi008-A	Batch Number	P002
Donor ID	NP0016		
Disease Association	Long QT Syndrome Type 3	Phenotype of Donor	Affected
Tissue of Origin	Dermal Fibroblasts	Sex	Male
Reprogramming Method	Integrating Transposon (Sleeping Beauty POU5F1, SOX2, KLF4 and MYC) and miRNA 307/367		
Passage Number	Passage 34	Cell number / vial	1.1 x 10 <sup>6</sup>
Culture Matrix	Vitronectin	Culture Medium	E8
O <sub>2</sub> Concentration	20%	CO <sub>2</sub> Concentration	5%
Passaging Method	EDTA	Additional Culture Information	N/A
Cryopreservation Medium	90% E8 Medium +10% DMSO		
Recommendation for thawing	Recommended thaw into 2 wells of a 6-well plate or per 10cm <sup>2</sup> . Refer to cell line user protocols for further guidance at <a href="http://www.EBiSC.org">www.EBiSC.org</a> .		
Additional Comments	Typical recovery after thaw. Cells may need to be passaged with a higher split ratio e.g. 1:6 – 1:10 to prevent cells becoming over confluent		
Associated Publications	PubMed-ID 24349418		

Please see [www.EBiSC.org](http://www.EBiSC.org) for further information on Quality Control applied to lines released by EBiSC. The following standard testing criteria have been determined within EBiSC, prior to release of this product:

Test	Assay	Acceptance Criteria	Result
<b>Sterility</b>	Inoculation for microbiological growth	Not Detected	Pass
	qPCR for Mycoplasma	Not Detected	Pass
	Virology (HBV, HCV, HIV1, HIV2)	Not Detected	Pass
<b>Cell Line Identity</b>	Short Tandem Repeat analysis using PCR	N/A	Allele data recorded and available upon request
<b>Viability</b>	Visual Assessment	Growth to confluence post-thaw	Acceptable
<b>Phenotype</b>	Continuous visual assessment of iPSC colony morphology.	Recorded	Typical iPSC colonies with low differentiation levels
	Flow Cytometry	SSEA-4 > 70% + TRA-1-60 > 70% + SSEA-1 < 10% +	Pass

[www.EBiSC.eu](http://www.EBiSC.eu)



In case of queries, please contact [culturecollections.technical@phe.gov.uk](mailto:culturecollections.technical@phe.gov.uk). European Collection of Authenticated Cell Cultures (ECACC), Culture Collections, Public Health England, Tel: +44 (0) 1980 612684

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Test	Assay	Acceptance Criteria	Result
<b>Differentiation Potential</b>	Spontaneous EB differentiation and qPCR for trilineage markers	Up-regulation of germ layer markers.	Endoderm : Detected Mesoderm : Detected Ectoderm : Detected
<b>Karyotype</b>	G-Banding	N/A	46, XY Model karyotype (in all 30 cells examined)

Additional cell line characteristics have been determined by original reprogramming centres and have not been independently verified by EBiSC. Historical cell line data displayed here is accurate according to data provided by depositors on 07-JUL-2015

Test	Assay	Result
<b>Phenotype</b>	Immunocytochemistry	Positive Expression of NANOG, POU5F1, SSEA-4 and TRA-1-80
	Flow Cytometry	Positive expression of TRA-1-80 and SSEA-4
<b>Karyotype</b>	Molecular karyotyping	Deletion at chromosome X. No other large chromosomal aberrations were detected
<b>Cell Line Identity</b>	SNP Genotyping	Match to donor tissue
<b>Clearance of Reprogramming Factors</b>	Endpoint RT-PCR of transposon encoded reprogramming factors	Weak expression of Sox2-cMyc cassette, no expression of Oct4 or Klf4
<b>Differentiation Potential</b>	Spontaneous differentiation	Confirmed differentiation to ectoderm and endoderm
<b>Genetic Defect</b>	DNA Sequencing	LQTS3 mutation confirmed

The following guidance can be found in the Instructions for Use	
<b>Intended use</b>	<b>Expiry Date</b>
<b>Product Format</b>	<b>Recommended storage conditions</b>
<b>Volume</b>	<b>Hazardous Information</b>

Approved CoA

Signature

Date

03 feb 2016



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