

Thaw and Culture Details

Cell Line Name	JHU121i						
WiCell Lot Number	DB41310						
Provider	Johns Hopkins University – Laboratory of Dr. Lewis Becker						
Banked By	Johns Hopkins University – Laboratory of Dr. Lewis Becker						
Thaw and Culture Recommendations	WiCell recommends thawing 1 vial into 3 wells of a 6 well plate. WiCell recommends thawing using ROCK Inhibitor for best results.						
Culture Platform	Feeder Independent						
	Medium: E8						
	Matrix: Vitronectin						
Protocol	WiCell Feeder Independent E8 Medium Protocol						
Passage Number	p5 These cells were cultured for 5 passages post reprogramming prior to freeze. Add +1 to the passage number to best represent the overall passage number of the cells at thaw.						
Date Vialed	04-June-2016						
Vial Label	P121 P5 2X10^6 6/4/16						
Biosafety and Use Information	This cell line is of human origin. Appropriate biosafety precautions should be followed when working with these cells. The end user is responsible for ensuring that the cells are handled and stored in an appropriate manner. WiCell is not responsible for damages or injuries that may result from the use of these cells. Cells distributed by WiCell are intended for research purposes only and are not intended for use in humans.						

Testing Performed by WiCell

		J					
Test Description	Test Provider	Test Method	Test Specification	Result			
Karyotype by G-banding	WiCell	SOP-CH-003	Expected karyotype	Fail			
	chromosome 12 in tv	vo of twenty-two ce	is is an abnormal karyotype. There is an extra copy of of twenty-two cells examined. Trisomy 12 is a recurrent in human pluripotent stem cell cultures.				
Post-Thaw Viable Cell Recovery	WiCell	SOP-CH-305	Recoverable attachment after passage	Pass			
Identity by STR UW Translational Research Initiative Pathology Laborate		PowerPlex 16 HS System by Promega	Defines profile	Pass			
Sterility	Biotest Laboratories	ST/07	Negative	Pass			
Mycoplasma	WiCell	SOP-QU-004	Negative	Pass			



Testing Reported by Provider

The Provider stated that some or all of the additional analyses listed below may have been performed for this cell line. For more information, publication and dbGaP links, where available, are provided on the cell line specific web page on the WiCell website.

- Embryoid bodies
- Infinium® Expanded Multi-Ethnic Genotyping Array (MEGAEX)

Approval Date	Quality Assurance Approval			
26-August-2016	X AMK			
J	AMK Quality Assurance Signed by: Klade, Anielica			



Chromosome Analysis Report: 051225

Date Reported: Friday, November 18, 2016

Cell Line: JHU121i-DB41310 11930

Passage#: 7

Date of Sample: 11/15/2016

Specimen: iPSC

Results: 47,XY,+12[2]/46,XY[19]

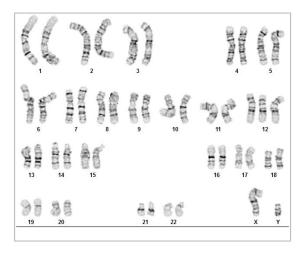
Nonclonal findings: 46,XY,t(1;19)(p22;p13.3)

Cell Line Gender: Male

Reason for Testing: lot release testing

Investigator:

, WiCell CDM



Cell: 32 Slide: 1

Slide Type: Karyotype

Total Counted: 22
Total Analyzed: 9

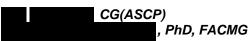
Total Karyogrammed: 6
Band Resolution: 450 - 475

Interpretation:

This is an abnormal karyotype. There is an extra copy of chromosome 12 in two of twenty-two cells examined. Trisomy 12 is a recurrent acquired abnormality in human pluripotent stem cell cultures.

No other clonal abnormalities were found. There is one nonclonal finding, listed above. Nonclonal findings may result from technical artifact, but may be due to a developing clonal abnormality or to low-level mosaicism.

Completed by: Reviewed and Interpreted by:



A signed copy of this report is available upon request.

Date:	Sent By:	Sent To:	QC Review By:

Limitations: This assay allows for microscopic visualization of numerical and structural chromosome abnormalities. The size of structural abnormality that can be detected is >3-10Mb, dependent upon the G-band resolution obtained from this specimen. For the purposes of this report, band level is defined as the number of G-bands per haploid genome. It is documented here as "band level", i.e., the range of bands determined from the four karyograms in this assay. Detection of heterogeneity of clonal cell populations in this specimen (i.e.,mosaicism) is limited by the number of metaphase cells examined, documented here as "# of cells counted".

This assay was conducted solely for listed investigator/institution. The results may not be relied upon by any other party without the prior written consent of the Director of the WiCell Cytogenetics Laboratory. The results of this assay are for research use only. If the results of this assay are to be used for any other purpose, contact the Director of the WiCell Cytogenetics Laboratory.

Unless otherwise mutually agreed in writing, the services provided to you hereunder by WiCell Research Institute, Inc. ("WiCell") are governed solely by WiCell's Terms and Conditions of Service, found at www.wicell.org/privacyandterms. Any terms you may attach to a purchase order or other document that are inconsistent, add to, or conflict with WiCell's Terms and Conditions of Service are null and void and of no legal force or effect.



Short Tandem Repeat Analysis

WiCell® info@wicell.org (888) 204-1782

Department of Pathology and Laboratory Medicine TRIP Laboratory (Molecular)

http://www.pathology.wisc.edu/research/trip

Sample Report: 11930-STR

Sample Name on Tube: 11930-STR

 $118.9 \text{ ng/}\mu\text{L}, (A260/280=1.89)$

Sample Type: Cells

Cell Count: ~2 million cells

Requestor:

WiCell Research Institute Ouality Department Sample Date: N/A

Receive Date: 11/21/16 **Assay Date:** 11/22/16

File Name: STR 161125 wmr

Report Date: 12/01/16

STR Locus	STR Genotype Repeat #	STR Genotype
FGA	16–18,18.2,19,19.2,20,20.2,21,21.2,22, 22.2, 23, 23.2, 24, 24.2, 25, 25.2, 26–30, 31.2, 43.2, 44.2,45.2, 46.2	Identifying information has
TPOX	6-13	been redacted to
D8S1179	7-18	protect donor
vWA	10-22	confidentiality. If
Amelogenin	X,Y	more information is required, please,
Penta_D	2.2, 3.2, 5, 7-17	contact WiCell's
CSF1PO	6-15	Technical Support.
D16S539	5, 8-15	
D7S820	6-14	
D13S317	7-15	
D5S818	7-16	
Penta_E	5-24	
D18S51	8-10, 10.2, 11-13, 13.2, 14-27	
D21S11	24,24.2,25,25.2,26-28,28.2,29,29.2, 30, 30.2,31, 31.2,32,32.2,33,33.2, 34,34.2,35,35.2,36-38	
TH01	4-9,9.3,10-11,13.3	
D3S1358	12-20	

<u>Results:</u> Based on the 11930-STR cells submitted by WiCell QA dated and received on 11/21/16, this sample (Label on Tube: 11930-STR) defines the STR profile of the human stem cell line JHU121i comprising 26 allelic polymorphisms across the 15 STR loci analyzed.

<u>Interpretation:</u> No STR polymorphisms other than those corresponding to the human JHU121i stem cell line were detected and the concentration of DNA required to achieve an acceptable STR genotype (signal/noise) was equivalent to that required for the standard procedure (~1 ng/amplification reaction) from human genomic DNA. This result suggests that the 11930-STR sample submitted corresponds to the JHU121i stem cell line and was not contaminated with any other human stem cells or a significant amount of mouse feeder layer cells.

<u>Sensitivity:</u> Sensitivity limits for detection of STR polymorphisms unique to either this or other human stem cell lines is ~2-5%.

X RMB Digitally Signed on 12/02/16

X WMR Digitally Signed on 12/02/16

PhD, Director / Co-Director
UWHC Molecular Diagnostics Laboratory / UWSMPH TRIP Laboratory

Sterility Report

Biotest Laboratories, Inc.

Making life-saving products possible

WiCell Research Institute, Inc. BIOTEST SAMPLE # 16110686

WiCell Quality Assurance

504 South Rosa Road, Room 101 VALIDATION # NG

Madison, WI 53719

TEST PURPOSE NG

PRODUCT JHU107i DB36244 11933, JHU203i DB36811 11934, JHU248i DB37113 11935, JHU062i

DB41102 11936, JHU106i DB41285 11937, JHU121i DB41310 11938, JHU160i DB41371

11939, JHU145i DB41350 11940, JHU146i DB41353 11941, JHU149i DB41356 11942

PRODUCT LOT NA

STERILE LOT NA BI LOT NA

STERILIZATION LOT NA BI EXPIRATION DATE NA

STERILIZATION DATE NA DATE RECEIVED 2016-11-10

STERILIZATION METHOD NA TEST INITIATED 2016-11-11

SAMPLING BLDG / ROOM NA TEST COMPLETED 2016-11-25

REFERENCE Processed according to LAB-003: Sterility Test Procedure

Ten (10) products were each divided between 40 mL TSB and 40 mL FTG. The samples were then cultured at 20-25 C and 30-35 C respectively and were monitored for a

minimum of 14 days.

⊠ USP

BI Manufacturers Specifications

☐ Other

RESULTS # POSITIVES # TESTED POSITIVE CONTROL NEGATIVE CONTROL

Sterile 0 10 NA 2 Negatives

COMMENTS NA

REVIEWED BY ______ DATE _______ DATE _______

Specific test results may not be indicative of the characteristics of any other samples from the same lot or similar lots. Liability is limited to the costs of the tests. The uncertainty of measurement associated with the measurement result reported in this certificate is available from the organization upon request.

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Mycoplasma Detection Assay Report Testing Performed by WiCell

Testing Performed by WiCell
Lot Release Test
November 10th, 2016

FORM SOP-QU-004.01 Version F Edition 01 Reported by: OG Reviewed by: JB Berthold Flash n' Glo 539

		Read	ing A	A	Read	ing B	В	Ratio		
#	Sample Name	RLU1	RLU2	Ave	RLU1	RLU2	Ave	B/A	Result	Comments/Suggestions
1	JHU121i-DB41310 11930	144	147	145.5	53	55	54	0.37	Negative	
2	Positive (+) Control	136	138	137	7492	7467	7480	54.59	Positive	
3	Negative (-) Control	250	247	248.5	23	23	23	0.09	Negative	

