

Thaw and Culture Details

Cell Line Name	JHU125i
WiCell Lot Number	DB41326
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 4 wells of a 6 well plate.
Culture Platform	Feeder Independent
	Medium: E8
	Matrix: Vitronectin
Protocol	WiCell Feeder Independent E8 Medium Protocol
Passage Number	p6 These cells were cultured for 6 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	16-June-2016
Vial Label	P125 P6 6/16/16 1M
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

Test Description	Test Provider	Test Method	Test Specification	Result
Post-Thaw Viable Cell	WiCell	SOP-CH-305	Recoverable attachment after	Pass
Recovery			passage	
Identity by STR	UW Translational Research Initiatives in Pathology Laboratory	PowerPlex 16 HS System by Promega	Defines profile	Pass
Sterility	Biotest Laboratories	ST/07	Negative	Pass
Mycoplasma	WiCell	SOP-QU-004	Negative	Pass
Karyotype by G-banding	WiCell	SOP-CH-003	Report karyotype	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
2F August 2017	3/17/2017 X AMK
25-August-2016	AMK Quality Assurance Signed by: Klade, Anjelica



Short Tandem Repeat Analysis

info@wicell.org (888) 204-1782

Department of Pathology and Laboratory Medicine TRIP Laboratory (Molecular)

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

Sample Report: 12138-STR

Sample Name on Tube: 12138-STR

 $182.7 \text{ ng/}\mu\text{L}, (A260/280=1.95)$

Sample Type: Cells

Cell Count: ~2 million cells

Requestor:

WiCell Research Institute **Quality Department**

Sample Date: N/A

Receive Date: 01/23/17 **Assav Date:** 01/24/17

File Name: STR

Report Date: 01/26/17

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 confidentiality. If
vWA	10-22	more information
Amelogenin	X,Y	is required,
Penta_D	2.2, 3.2, 5, 7-17	please, contact
CSF1PO	6-15	WiCell's Technical
D16S539	5, 8-15	Support.
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	

Results: Based on the 12138-STR cells submitted by WiCell QA dated and received on 01/23/17, this sample (Label on Tube: 12138-STR) defines the STR profile of the human stem cell line JHU125i comprising 26 allelic polymorphisms across the 15 STR loci analyzed.

Interpretation: No STR polymorphisms other than those corresponding to the human JHU125i 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 12138-STR sample submitted corresponds to the JHU125i stem cell line and was not contaminated with any other human stem cells or a significant amount of mouse feeder layer cells.

Sensitivity: Sensitivity limits for detection of STR polymorphisms unique to either this or other human stem cell lines is $\sim 2-5\%$.

X RMB	Digitally Signed on 01/27/17	X WMR	Digitally Signed on	01/27/17
TRIP La	aboratory, Molecular	UWHC Molecular	, PhD, Director / Co-Director Diagnostics Laboratory / UWS	

Sterility Report

Biotest Laboratories, Inc.

Making life-saving products possible

WiCell Research Institute, Inc.

BIOTEST SAMPLE # 17011270

WiCell Quality Assurance

504 South Rosa Road, Room 101 VALIDATION # NG

Madison, WI 53719

TEST PURPOSE NG

PRODUCT JHU064i-DB41110 12126, JHU066i-DB41116 12127, JHU071i-DB41122 12128, JHU117i-

DB41295 12129, JHU125i-DB41326 12130, JHU219i-DB36878 12131, JHU207i-DB36830

12132, JHU208i-DB36834 12133, JHU209i-DB36839 12134, MIN09i-33114.C-WB57126 12155

PRODUCT LOT NA

STERILE LOT NA BI LOT NA

STERILIZATION LOT NA BI EXPIRATION DATE NA

STERILIZATION DATE NA DATE RECEIVED 2017-01-19

STERILIZATION METHOD NA TEST INITIATED 2017-01-20

SAMPLING BLDG / ROOM NA TEST COMPLETED 2017-02-03

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 03 FEB 17

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.

Biotest Laboratories = 9303 West Broadway Ave. = Brooklyn Park, MN 55445 = USA = (763) 315-1200

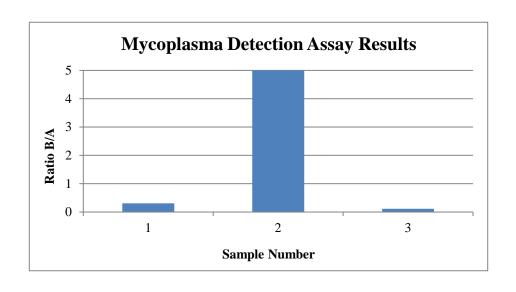


Mycoplasma Detection Assay Report Testing Performed by WiCell

Testing Performed by WiCell Lot Release Testing January 17, 2017

FORM SOP-QU-004.01 Version F Edition 02 Reported by:OG Reviewed by: JB Berthold Flash n' Glo 539

		Read	ing A	A	Read	ling B	В	Ratio		
#	Sample Name	RLU1	RLU2	Ave	RLU1	RLU2	Ave	B/A	Result	Comments/Suggestions
1	JHU125i-DB41326 12138	217	213	215	68	65	66.5	0.31	Negative	
2	Positive (+) Control	124	117	120.5	7249	7237	7243	60.11	Positive	
3	Negative (-) Control	234	229	231.5	28	25	26.5	0.11	Negative	





Chromosome Analysis Report: 058023

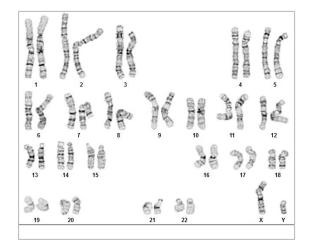
Date Reported: Tuesday, January 24, 2017

Cell Line: JHU125i-DB41326 12138

Passage#: 8

Date of Sample: 1/19/2017

Specimen: iPSC Results: 46,XY



Cell Line Gender: Male

Reason for Testing: lot release testing

WiCell CDM Investigator:

> Cell: 45 Slide: 1

Slide Type: Karyotype

Total Counted: 20 Total Analyzed: 8

Total Karyogrammed: 4 Band Resolution: 450 - 500

QC Review By:

Interpretation:

This is a normal karyotype. No clonal abnormalities were detected at the stated band level of resolution.

Completed by:	MS, CG(AS	SCP)
Reviewed and Interpreted by:	,	PhD, FACMG

Sent By:____

A signed copy of this report is available upon request.

Director of the WiCell Cytogenetics Laboratory.

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 karvograms in this assay. Detection of heterogeneity of clonal

Sent To:_

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

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.