



Certificate of Analysis

Thaw and Culture Details

Cell Line Name	STAN156i-334C1	
WiCell Lot Number	DB35697	
Provider/Client	Stanford University – Laboratory of Dr. Thomas Quettermous	
Banked By	Icahn School of Medicine at Mount Sinai Stem Cell Core	
Thaw and Culture Recommendations	WiCell recommends thawing 1 vial into 3 wells of a 6 well plate using mTeSR™ Plus and Matrigel®. WiCell recommends thawing using ROCK Inhibitor for best results.	
Protocol	WiCell Feeder Independent Pluripotent Stem Cell Protocol	
Culture Platform Prior to Freeze	Medium: mTeSR™ 1	Matrix: Matrigel®
Passage Number	p10 Cells were cultured for 10 passages prior to freeze and post colony selection. Plated cells at thaw should be labeled passage 11.	
Date Vialied	15-October-2015	
Vial Label	IMMS 334i C1 P10 AP 10/15/15	
Biosafety and Use Information	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.	



Certificate of Analysis

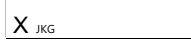
Results

Test Description	Test Provider	Test Method	Test Specification	Result
Karyotype	WiCell	G-T-L Banding performed on 20 metaphase cells	Expected karyotype	See Report
	Results: 46,XX Interpretation: This is a normal karyotype; no clonal abnormalities were detected at the stated band level of resolution.			
Post-Thaw Viable Cell Recovery	WiCell	Thaw using specified Thaw & Culture Recommendations	Recoverable attachment after passage	Pass
Identity by STR	WiCell	PowerPlex 16 HS System by Promega™	Defines STR profile of deposited cell line	See Report
Mycoplasma	WiCell	PCR	Amplification of mycoplasma specific DNA detected with negative result	Pass
Sterility	Steris	Native Product Direct Transfer using FTM and TSB (ST/07)	Negative for growth following 14 days of culture	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.

- RNA-Seq
- Whole Genome Sequencing
- Infinium® Expanded Multi-Ethnic Genotyping Array (MEGA^{EX})

Approval Date	WiCell Quality Assurance Approval
13-January-2022	<div style="text-align: right; font-size: small;">1/13/2022</div>  <div style="font-size: x-small;"> JKG WiCell Quality Assurance Signed by Gay Jenna </div>

Date Reported: Monday, December 27, 2021

Cell Line Sex: Female

Cell Line: STAN156i-334C1-DB35697

Reason for Testing: LOT_RELEASE

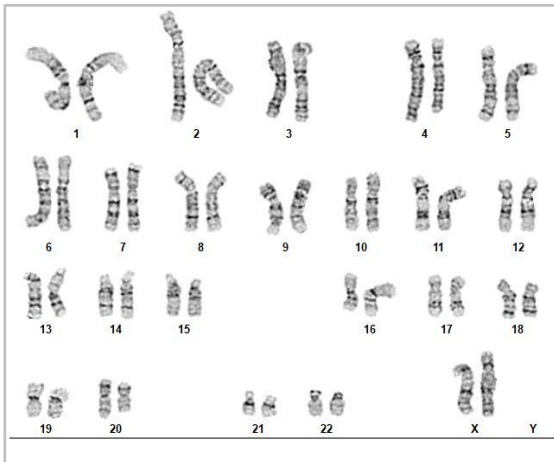
Submitted Passage #: 11

Date of Sample: 12/17/2021

Investigator: WiCell Stem Cell Bank, WiCell

Specimen: Human iPSC

Results: 46,XX



Cell: 41

Slide: G01

Slide Type: Karyotype

Total Counted: 20

Total Analyzed: 8

Total Karyogrammed: 4

Band Resolution: 400 - 450

Interpretation:

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

Completed by: Pam Mill

Reviewed and Interpreted by: Kaitlin C. Lenhart, PhD, DABMGG

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 of this assay are for research use only. 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

Requestor: WiCell Stem Cell Bank, WiCell
 Samples Received: 12Dec21, 17Dec21
 STR Amplification Date: 20Dec21

Form SOP-89.01
 Version 7.0

Sample Name	JHU054i- WB67822 p12	STAN157i- 334C2- DB35700 p11	STAN156i- 334C1- DB35697 p11
Label on tube	89948	90072	90074
FGA	Identifying information has been redacted to protect donor confidentiality. If more information is required, please contact info@wicell.org		
TPOX			
D8S1179			
vWA			
Amelogenin			
Penta_D			
CSF1PO			
D16S539			
D7S820			
D13S317			
D5S818			
Penta_E			
D18S51			
D21S11			
TH01			
D3S1358			
Allelic Polymorphisms	29	28	28
Matches*	71848	90074	90072
Comments			

**Note: The STR profile of the following sample is an exact match for the given sample/samples.*



Short Tandem Repeat

Form SOP-89.01

Version 7.0

Requestor: WiCell Stem Cell Bank, WiCell
Samples Received: 12Dec21, 17Dec21
STR Amplification Date: 20Dec21

Assay Description: STR analysis is performed using the PowerPlex 16 HS System by Promega™. Results are reported as 13 CODIS STR markers, Amelogenin for gender determination and two low-stutter, highly discriminating pentanucleotide STR markers.

Results: The genotypic profiles comprise a range of 28-29 allelic polymorphisms across the 15 STR loci analyzed.

Interpretation: 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. These results suggests that the cells submitted correspond to the cell lines as named and were not contaminated with any other human 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 cell lines is ~2-5%.

12/22/2021	12/22/2021	12/22/2021
X Hannah Rueth	X Amber Kuhn	X Dawn Graham
Tech #1 Characterization Signed by: Cytogenetics	Tech #2 Characterization Signed by: Kuhn, Amber	QA Review Quality Assurance Signed by: Graham, Dawn

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Raw data is available upon request.



Mycoplasma Assay Report

PCR-based assay performed by WiCell

WiCell Stem Cell Bank, WiCell

21Dec21

Form SOP-83.01

Version 4.0

Sample Name	Result	Interpretation
STAN157i-334C2-DB35700 p11 (90072)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
STAN156i-334C1-DB35697 p11 (90073)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
Positive (+) Control	Positive	
Negative (-) Control	Negative	

Assay Description

Sample is tested for presence of mycoplasma using EZ-PCR™ Mycoplasma Detection Kit (Sartorius).

12/21/2021	12/21/2021	12/22/2021
X Amber Kuhn	X Justin Hobson	X Dawn Graham
Tech #1 Characterization Signed by: Kuhn, Amber	Tech #2 Characterization Signed by: Hobson, Justin	QA Review Quality Assurance Signed by: Graham Dawn

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A gel image is available upon request.

Native Product Sterility Report



WiCell
504 S Rosa Road, Rm 101
Madison, WI 53719

SAMPLE #: 19081786
DATE RECEIVED: 22-Aug-19
TEST INITIATED: 28-Aug-19
TEST COMPLETED: 11-Sep-19

SAMPLE NAME / DESCRIPTION: PACS1001i-GM27160 DB67267 14974
MCW029i-A2757 WB67282 14975
WC048i-17097-02-06 WB67278 14976
WC049i-17097-02-07 WB67280 14977
STAN331i-952C3 DB44191 14978
STAN332i-952C5 DB44194 14979
STAN250i-622C2 DB35669 14980
STAN252i-637C2 DB44374 14981
STAN156i-334C1 DB35697 14982
STAN157i-334C2 DB35700 14983

UNIQUE IDENTIFIER: NA

TEST RESULTS:

# Tested	# Positives (Growth)	- Control
10	0	2 Negatives

TEST SUMMARY:

# Samples	Media Type	Volume (mL)	Incubation Temperature (° C)	Incubation Duration (Days)
10	TSB	40	20-25	14
10	FTG	40	30-35	14

REFERENCE: Processed according to LAB-003: Sterility Test Procedure

PD #: 000053

TEST METHODOLOGY: USP - Direct Transfer

COMMENTS: NA

REVIEWED BY _____

DATE 12 Sep 19

Specific test results may not be indicative of the characteristics of any other samples from the same lot or similar lots. This test report shall not be reproduced, except in full, without prior written approval. Liability is limited to the costs of the tests. Results applied to samples as received.