



Certificate of Analysis

Thaw and Culture Details

Cell Line Name	STAN158i-336C2	
WiCell Lot Number	DB44540	
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 4 wells of a 6 well plate using mTeSR™ Plus and Matrigel®. WiCell recommends passaging with ROCK Inhibitor	
Protocol	WiCell Feeder Independent Pluripotent Stem Cell Protocol	
Culture Platform Prior to Freeze	Medium: mTeSR™ 1	Matrix: Matrigel®
Passage Number	p12 Cells were cultured for 12 passages prior to freeze and post colony selection. Plated cells at thaw should be labeled passage 13.	
Date Vialied	19-August-2015	
Vial Label	ISMMS 336i C2P12 AP 081915	
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.	



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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
	<p>Results: 46,XX,i(20)(q10)[11]/46,XX[8] Nonclonal findings: 47,XX,+20</p> <p>Interpretation: This is an abnormal karyotype. There is an isochromosome of the long (q) arm of chromosome 20 in eleven of twenty cells examined. This imbalance results in trisomy for 20q and monosomy for 20p. Gain of chromosome 20q is a recurrent acquired abnormality in pluripotent stem cell cultures. No other clonal abnormalities were detected at the stated band level of resolution.</p> <p>There is a nonclonal finding, listed above, which contains a chromosomal aberration (gain of chromosome 20) recurrently acquired in pluripotent stem cell cultures. Nonclonal findings may result from technical artifact, but may be due to a developing clonal abnormality or to low-level mosaicism.</p>			
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

Test Description	Method	Result
Mycoplasma	Lonza MycoAlert kit	Negative

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})



Certificate of Analysis

Approval Date	WiCell Quality Assurance Approval
25Jan23	<p style="text-align: right;">1/25/2023</p> <p>X HEB _____ HEB WiCell Quality Assurance Signed by: Bruner, Haley</p>

Date Reported: Wednesday, December 21, 2022

Cell Line Sex: Female

Cell Line: STAN158i-336C2-DB44540

Reason for Testing: LOT_RELEASE

Submitted Passage #: 14

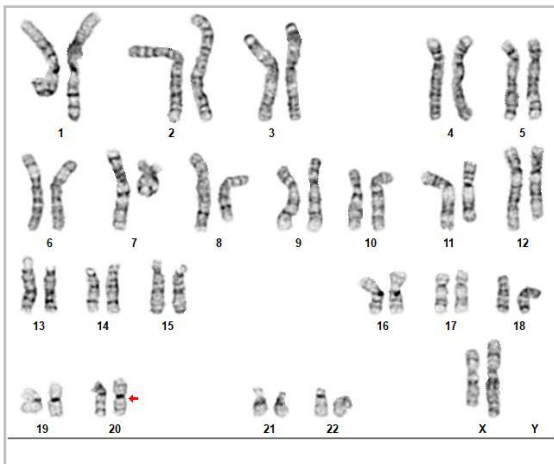
Date of Sample: 12/6/2022

Investigator: WiCell Stem Cell Bank, WiCell

Specimen: Human iPSC

Results: 46,XX,i(20)(q10)[11]/46,XX[8]

Nonclonal findings: 47,XX,+20



Cell: 26

Slide: G01

Slide Type: Karyotype

Total Counted: 20

Total Analyzed: 8

Total Karyogrammed: 4

Band Resolution: 425 - 500

Interpretation:

This is an abnormal karyotype. There is an isochromosome of the long (q) arm of chromosome 20 in eleven of twenty cells examined. This imbalance results in trisomy for 20q and monosomy for 20p. Gain of chromosome 20q is a recurrent acquired abnormality in pluripotent stem cell cultures. No other clonal abnormalities were detected at the stated band level of resolution.

There is a nonclonal finding, listed above, which contains a chromosomal aberration (gain of chromosome 20) recurrently acquired in pluripotent stem cell cultures. Nonclonal findings may result from technical artifact, but may be due to a developing clonal abnormality or to low-level mosaicism.

Completed by: Pam Mill

Reviewed and Interpreted by: Xiangqiang Shao, PhD

For internal use only

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: 06Dec22

STR Amplification Date: 12Dec22

Form SOP-89.01

Version 9.0

Sample Name	STAN158i-336C2-DB44540 p14
WiCell CTR No.¹	95023
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	28
Matches*	
Comments	

**Note: The STR profile of the following sample is a 100% match for the given sample/samples unless otherwise specified.*

¹ CTR No.: Characterization Test Request Number; also known as a laboratory accessioning number.



Short Tandem Repeat

Requestor: WiCell Stem Cell Bank, WiCell

Samples Received: 06Dec22

STR Amplification Date: 12Dec22

Form SOP-89.01

Version 9.0

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 of 28 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 ~2-4%.

12/14/2022	12/16/2022	12/21/2022
X Justin Hobson	X Amber Kuhn	X Dawn Graham
<hr/> Tech #1 Characterization Signed by: Hobson, Justin	<hr/> Tech #2 Characterization Signed by: Kuhn, Amber	<hr/> QA Review Quality Assurance Signed by: Graham, Dawn

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Mycoplasma Assay Report

PCR-based assay performed by WiCell
WiCell Stem Cell Bank, WiCell
12Dec22

Form SOP-83.01
Version 5.0

Sample Name	Result	Interpretation
STAN158i-336C2-DB44540 p14 (95023)	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).

12/12/2022	12/12/2022	12/13/2022
<p>X Justin Hobson</p> <hr/> Tech #1 Characterization Signed by: Hobson, Justin	<p>X Kaylie Petersen</p> <hr/> Tech #2 Characterization Signed by: Petersen, Kaylie	<p>X Dawn Graham</p> <hr/> QA Review Quality Assurance Signed by: Graham, Dawn

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A gel image is available upon request.

Native Product Sterility Report



**CORRECTED
REPORT #2**

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

SAMPLE #: 22031046
DATE RECEIVED: 17-Mar-22
TEST INITIATED: 28-Mar-22
TEST COMPLETED: 11-Apr-22

SAMPLE NAME / DESCRIPTION: WA09-WB67843
WA09-WB67844
UCSD241i-APP2-3-WB67845
iPS(IMR90)-4-WB67846
iPS(IMR90)-4-WB67847
STAN158i-336C2-DB44540
STAN159i-336C3-DB44543
STAN122i-193C1-DB35800
STAN162i-345C2-DB38177
STAN121i-193C2-DB35803

UNIQUE IDENTIFIER: N/A

TEST RESULTS:

# Tested	# Positives (Growth)	- Control
10	4	2 Negatives

TEST SUMMARY:

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

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

PD #: 000053

TEST METHODOLOGY: USP - Direct Transfer

COMMENTS: Corrected report revised due to updated comments.

Report revised due to updated Sample Name/Description.

Sample labeled STAN122i-193C1-DB35800 positive for TSB and FTG

Sample labeled STAN121i-193C2-DB35803 positive for TSB and FTG

REVIEWED BY 

DATE 18 APR 2022

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.