

Thaw and Culture Details

Cell Line Name	PENN005i-35-3			
WiCell Lot Number	DB36317			
Provider	University of Pennsylvania – Dr. Daniel Rader			
Banked By	Penn Institute for Regenerative Medicine iPS Core Facility			
Thaw and Culture Recommendations	WiCell recommends thawing 1 vial into 2 wells of a 6 well plate. WiCell recommends thawing using ROCK Inhibitor for best results.			
Protocol	WiCell Feeder Dependent Protocol			
Culture Platform Prior to Freeze	Feeder Dependent			
	Medium: hESC Medium (KOSR)			
	Matrix: MEF			
Passage Number	p13 These cells were cultured for 13 passages prior to freeze and post colony picking. Therefore, plated cells at thaw should be labeled passage 14.			
Date Vialed	30-January-2015			
Vial Label	iPS-35-1360-010 Sev3 P13 01-30-15 JS			
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.			

Testing Performed by WiCell

Test Description	Test Provider	Test Method	Test Specification	Result
	WiCell	SOP-49	Expected karyotype	See Report
Karyotype by G-banding	Results: 46,XY Nonclonal findings: 47,XY,+17 Interpretation: This is a normal karyotype; no 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 17) recurrently acquired in pluripotent stem cell cultures. An additional twenty cells were examined for this chromosomal aberration; it was not observed. Nonclonal findings may result from technical artifact, but may be due to a developing clonal abnormality or to low-level mosaicism.			
Post-Thaw Viable Cell Recovery	WiCell SOP-99 Recoverable attachment after passage		Pass	
Identity by STR	WiCell	PowerPlex 16 HS System by Promega	Defines STR profile of deposited cell line	Pass
Sterility	Steris	ST/07	Negative	Pass
Mycoplasma	WiCell	SOP-79	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.

- SNP microarray
- Flow Cytometry (Tra1-60 and SSEA-4)
- Differentiation into hepatocytes
- Infinium® Expanded Multi-Ethnic Genotyping Array (MEGAEX)

Approval Date	Quality Assurance Approval	
23-June-2016	3/11/2021 X JKG MG Quality Assurance Signed by Gay, Jenna	



Chromosome Analysis Report: 084925

Date Reported: Friday, February 26, 2021

Cell Line: PENN005i-35-3-DB36317

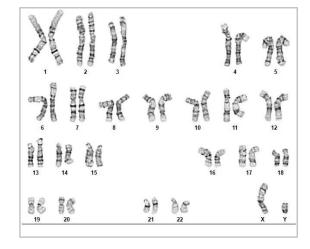
Submitted Passage #: 14

Date of Sample: 2/18/2021

Specimen: Human IPSC

Results: 46,XY

Nonclonal findings: 47,XY,+17



Cell Line Sex: Male

Reason for Testing: LOT_RELEASE

Investigator: WiCell Stem Cell Bank, WiCell

Cell: 33

Slide: G03

Slide Type: Karyotype

Total Counted: 40
Total Analyzed: 8

Total Karyogrammed: 5

Band Resolution: 500 - 550

Interpretation:

This is a normal karyotype; no 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 17) recurrently acquired in pluripotent stem cell cultures. An additional twenty cells were examined for this chromosomal aberration; it was not observed. Nonclonal findings may result from technical artifact, but may be due to a developing clonal abnormality or to low-level mosaicism.

Completed by:	, CG(ASCP)		
Reviewed and Interpreted by:	, PhD, FACMG		
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: 18Feb21, 19Feb21 STR Amplification Date: 22Feb21

Sample Name	PENN005i-35-3- DB36317 p14	JHU042i- WB67618 p11	WA09-RB67629 p30	WA09-RB67628 p30	WA09-RB67626 p29	PENN006i-149-1- DB36519 p13
Label on tube	84925	84926	84930	84931	84932	84933
FGA						
TPOX						
D8S1179			Identifying information has			
vWA			been redacted to			
Amelogenin			protect donor			
Penta_D			confidentiality. I more information			
CSF1PO			is required,			
D16S539			please contact info@wicell.org			
D7S820			iiilo @ wiceii.org			
D13S317						
D5S818						
Penta_E						
D18S51						
D21S11						
TH01						
D3S1358						
Allelic Polymorphisms	26	26	24	24	24	24
Matches*		84413	See Matches Comment	See Matches Comment	See Matches Comment	_
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 3.0

Requestor: WiCell Stem Cell Bank, WiCell Samples Received: 18Feb21, 19Feb21 STR Amplification Date: 22Feb21

Results: The genotypic profiles comprise a range of 24-26 allelic polymorphisms across the 15 STR loci analyzed.

<u>Interpretation:</u> 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%.

<u>Matches:</u> Samples <u>84930</u>, <u>84931</u>, and <u>84932</u> are exact matches to each other and to 14630, 74319, 74844, 74924, 74925, 83593, 84032, 84034, 84095, 84476, 84477, and 84656.

Z/23/2021

Z/24/2021

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Raw data is available upon request.

Native Product Sterility Report



SAMPLE #: 19102854

DATE RECEIVED: 31-Oct-19

TEST INITIATED: 11-Nov-19

TEST COMPLETED: 25-Nov-19

SAMPLE NAME / DESCRIPTION: STAN100i-108C4 WB67324 15096

WC058i-108-1-2-16 WB67325 15097

STAN255i-649C1 DB44436 15098 STAN256i-649C2 DB44439 15099 PENN005i-35-3 DB36317 15100 PENN006i-149-1 DB36519 15101 PENN007i-765-3 DB36286 15102 PENN008i-77-5 DB36507 15103 PENN012i-93-2 DB34713 15104 PENN013i-72-1 DB35089 15105

UNIQUE IDENTIFIER: NA

TEST RESULTS:

WiCell

504 S Rosa Road, Rm 101

Madison, WI 53719

# 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 26 NOVIG

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.



Mycoplasma Assay Report

PCR-based assay performed by WiCell
WiCell
16Feb21

Sample Name	Result	Interpretation
PENN005i-35-3-DB36317 p.14 (84799)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
PENN006i-149-1-DB36519 p.13 (84800)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
MIN31i-33363.D.3C2-WB67625 p.24 (84804)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
INC149 11FEB21AP (84805)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
INC169 11FEB21MMM (84806)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
INC123 11FEB21KR 1 OF 2 (84808)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
INC123 11FEB21KR 2 OF 2 (84836)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
Positive (+) Control	Positive	
Negative (-) Control	Negative	

Reported by: , Assistant Research Specialist Reviewed by: , Assistant Research Specialist

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A gel image is available upon request.