



# Certificate of Analysis

## Thaw and Culture Details

Cell Line Name	<b>STAN022i-170-2</b>	
WiCell Lot Number	<b>DB30885</b>	
Provider/Client	Stanford University – Laboratory of Dr. Marlene Rabinovitch	
Banked By	Stanford University – Laboratory of Dr. Marlene Rabinovitch	
Thaw and Culture Recommendations	WiCell recommends thawing 1 vial into 1 well of a 6 well plate using TeSR™-E8™ and Matrigel®.	
Protocol	WiCell Feeder Independent Pluripotent Stem Cell Protocol	
Culture Platform Prior to Freeze	Medium: E8	Matrix: Matrigel®
Passage Number	p10 Cells were cultured for 10 passages prior to freeze and post reprogramming. Plated cells at thaw should be labeled passage 11.	
Date Vialied	30-JUNE-2015	
Vial Label	06/30/2015 E 170 D#####-### ip 170FSVNOC2 P10 V#####	The label on vial only includes information applicable to the entire lot. "D#####-###" and "V#####" are vial specific and therefore are not included on this CoA.
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
	<b>Results:</b> 46,XY <b>Interpretation:</b> 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

Test Description	Test Method	Result
Identity	SNP	iPSCs match the donor material
Mycoplasma	Lonza MycoAlert™ kit	Negative

The Provider stated that the additional analysis 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.

- Infinium® Expanded Multi-Ethnic Genotyping Array (MEGA<sup>EX</sup>)

Approval Date	WiCell Quality Assurance Approval
22-June-2022	 <small>AA WiCell Quality Assurance Signed by Armitz, Andy</small>

**Date Reported:** Friday, April 29, 2022

**Cell Line:** STAN022i-170-2-DB30885

**Submitted Passage #:** 12

**Date of Sample:** 4/22/2022

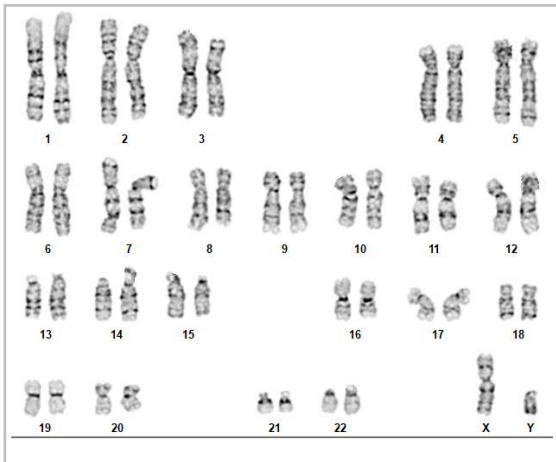
**Specimen:** Human iPSC

**Results:** 46,XY

**Cell Line Sex:** Male

**Reason for Testing:** LOT\_RELEASE

**Investigator:** WiCell Stem Cell Bank, WiCell



**Cell:** 6

**Slide:** G02

**Slide Type:** Karyotype

**Total Counted:** 20

**Total Analyzed:** 8

**Total Karyogrammed:** 4

**Band Resolution:** 400 - 500

**Interpretation:**

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

**Completed by:** Kim Leonhard, CG(ASCP)

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

*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](http://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: 22Apr22

STR Amplification Date: 27Apr22

Form SOP-89.01

Version 8.0

<b>Sample Name</b>	<b>STAN022i-170-2-DB30885 p12</b>
<b>Label on tube</b>	91700
<b>FGA</b>	Identifying information has been redacted to protect donor confidentiality. If more information is required, please contact <a href="mailto:info@wicell.org">info@wicell.org</a>
<b>TPOX</b>	
<b>D8S1179</b>	
<b>vWA</b>	
<b>Amelogenin</b>	
<b>Penta_D</b>	
<b>CSF1PO</b>	
<b>D16S539</b>	
<b>D7S820</b>	
<b>D13S317</b>	
<b>D5S818</b>	
<b>Penta_E</b>	
<b>D18S51</b>	
<b>D21S11</b>	
<b>TH01</b>	
<b>D3S1358</b>	
<b>Allelic Polymorphisms</b>	28
<b>Matches*</b>	
<b>Comments</b>	

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



# Short Tandem Repeat

Requestor: WiCell Stem Cell Bank, WiCell

Samples Received: 22Apr22

STR Amplification Date: 27Apr22

Form SOP-89.01

Version 8.0

**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 a range 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 ~2-5%.

4/28/2022	4/28/2022	5/2/2022
<b>X</b> Amber Kuhn	<b>X</b> Anna Lisa Larson	<b>X</b> Dawn Graham
Tech #1 Characterization Signed by: Kuhn, Amber	Tech #2 Characterization Signed by: Larson, Anna Lisa	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  
28Apr22

Form SOP-83.01  
Version 5.0

Sample Name	Result	Interpretation
STAN022i-170-2-DB30885 p12 (91700)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
INC 150 22Apr22 JB (91698)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
INC 149 22Apr22 MMM (91697)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
INC 169 22Apr22 JG 2/2 (91696)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
INC 169 22Apr22 JG 1/2 (91695)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
INC 170 22Apr22 KLP (91694)	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).

4/28/2022	4/30/2022	5/2/2022
 Amber Kuhn <hr/> Tech #1 Characterization Signed by: Kuhn, Amber	 Kayla Janke <hr/> Tech #2 Characterization Signed by: Janke, Kayla	 Dawn Graham <hr/> 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 #: 21121046  
DATE RECEIVED: 16-Dec-21  
TEST INITIATED: 22-Dec-21  
TEST COMPLETED: 05-Jan-22

SAMPLE NAME / DESCRIPTION: JHU083i-WB67825  
STAN061i-164-1-WB67826  
STAN366i-282C2-WB67827  
STAN022i-170-2-DB30885  
PENN130i-78-3-DB34941  
PENN165i-M2-21-DB35068  
PENN157i-M2-6-DB35083  
PENNO95i-123-7-DB36648  
PENNO96i-44-4-DB34677  
PENNO97i-17-1-DB36079

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 05 JAN 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.