



# Certificate of Analysis

## Thaw and Culture Details

Cell Line Name	<b>UCSD241i-APP2-3</b>	
WiCell Lot Number	<b>WB67856</b>	
Parent Material	UCSD241i-APP2-3-WB67011	
Provider/Client	University of California, San Diego – Laboratory of Dr. Lawrence Goldstein	
Banked By	WiCell	
Thaw and Culture Recommendations	WiCell recommends thawing 1 vial into 3 wells of a 6 well plate using mTeSR™ Plus and Matrigel®.	
Protocol	WiCell Feeder Independent Pluripotent Stem Cell Protocol	
Culture Platform Prior to Freeze	Medium: mTeSR™ Plus	Matrix: Matrigel®
Passage Number	p21 Cells were cultured for 20 passages prior to freeze and post reprogramming. Plated cells at thaw should be labeled passage 21.	
Date Vialied	15-April-2022	
Vial Label	UCSD241i-APP2-3 p21 WB67856	
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
	<b>Results:</b> 46,XX <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	≥ 15 Undifferentiated Colonies prior to passage, ≤ 30% Differentiation prior to passage, and recoverable attachment after passage	Pass
Identity by STR	WiCell	PowerPlex 16 HS System by Promega™	Consistent with 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

For more information, publication and dbGaP links, where available, are provided on the cell line specific web page on the WiCell website.

Test Description	Test Method	Result
Pluripotency	FACS	Expressed the pluripotency-associated proteins NANOG and TRA1-81. See the publication for Mean % TRA1-81.
Teratoma	Injected into nude rats	Differentiated into cells of ectodermal, mesodermal, and endodermal lineages in vitro.

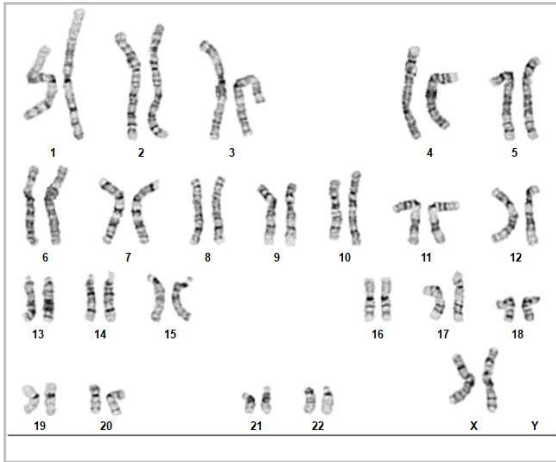


# Certificate of Analysis

Approval Date	WiCell Quality Assurance Approval
25-May-2022	<p data-bbox="1255 289 1297 305">5/25/2022</p> <p data-bbox="1115 326 1157 342">X_JKG</p> <p data-bbox="1115 350 1205 383">IKG WiCell Quality Assurance Signed by: Gay, Jenna</p>

**Date Reported:** Tuesday, May 3, 2022  
**Cell Line:** UCSD241i-APP2-3-WB67856  
**Submitted Passage #:** 21  
**Date of Sample:** 4/27/2022  
**Specimen:** Human iPSC  
**Results:** 46,XX

**Cell Line Sex:** Female  
**Reason for Testing:** LOT\_RELEASE  
  
**Investigator:** WiCell Stem Cell Bank, WiCell



**Cell:** 5  
**Slide:** G02  
**Slide Type:** Karyotype  
  
**Total Counted:** 20  
**Total Analyzed:** 8  
**Total Karyogrammed:** 4  
**Band Resolution:** 375 - 475

**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:** Vanessa Horner, PhD, FACMG

*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: 27Apr22, 28Apr22

STR Amplification Date: 04May22

Form SOP-89.01

Version 8.0

Sample Name	UCSD241i-APP2-3-WB67856 p21	STAN006i-148-1-DB31124 p12	JHU217i-DB36868 p8	JHU225i-DB41417 p6
Label on tube	91769	91784	91794	91795
FGA	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>			
TPOX				
D8S1179				
vWA				
Amelogenin				
Penta_D				
CSF1PO				
D16S539				
D7S820				
D13S317				
D5S818				
Penta_E				
D18S51				
D21S11				
TH01				
D3S1358				
Allelic Polymorphisms	28	28	27	29
Matches*	See Matches Comments			77637
Comments				

*\*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: 27Apr22, 28Apr22

STR Amplification Date: 04May22

**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 27-29 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%.

**Matches:** Sample 91769 is an exact match to 67074, 67101, 68023, 75167, 87113, 89245, 90431 and 90998.

5/6/2022	5/6/2022	5/9/2022
<p><b>X</b> Amber Kuhn</p> <hr/> <p>Tech #1 Characterization Signed by: Kuhn, Amber</p>	<p><b>X</b> Molly Miles</p> <hr/> <p>Tech #2 Characterization Signed by: Miles, Molly</p>	<p><b>X</b> Dawn Graham</p> <hr/> <p>QA Review Quality Assurance Signed by: Graham, Dawn</p>

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*Raw data is available upon request.*



# Mycoplasma Assay Report

PCR-based assay performed by WiCell  
WiCell Stem Cell Bank, WiCell  
30Apr22

Form SOP-83.01  
Version 5.0

Sample Name	Result	Interpretation
UCSD241i-APP2-3-WB67856 p21 (91769)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
STAN006i-148-1-DB31124 p12 (91784)	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).

4/30/2022	4/30/2022	5/2/2022
<b>X</b> Kayla Janke <hr/> Tech #1 Characterization Signed by: Janke, Kayla	<b>X</b> Molly Miles <hr/> Tech #2 Characterization Signed by: Miles, Molly	<b>X</b> 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 #: 22041128  
DATE RECEIVED: 21-Apr-22  
TEST INITIATED: 28-Apr-22  
TEST COMPLETED: 12-May-22

SAMPLE NAME / DESCRIPTION: PENN169i-M17-3-DB36515  
PENN106i-75-39-DB36117  
PENN107i-145-1-DB34930  
PENN061i-821-2-DB36440  
PENN109i-802-2-DB36444  
PENN110i-389-6-DB36406  
PENN059i-555-1-DB36432  
PENN112i-304-6-DB34872  
PENN113i-126-66-DB35039  
UCSD241i-APP2-3-WB67856

UNIQUE IDENTIFIER: N/A

## 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 *Ami Buckhard*

DATE 20May2022

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.