

## Thaw and Culture Details

Cell Line Name	UCSD236i-APP1-1				
WiCell Lot Number	WB66255				
Parent Material	UCSD236i-APP1-1-DB26819				
Provider	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.				
Culture Platform	Feeder Dependent				
	Medium: hESC Medium (KOSR)				
	Matrix: MEF				
Protocol	WiCell Feeder Dependent Protocol				
Passage Number	p23 These cells were cultured for 22 passages prior to freeze and post reprogramming. WiCell adds +1 to the passage number to best represent the overall passage number of the cells at thaw.				
Date Vialed	06-June-2017				
Vial Label	UCSD236i-APP1-1 p23 WB66255				
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
Karyotype by G-banding	WiCell	SOP-CH-003	Expected karyotype	See Report
Post-Thaw Viable Cell Recovery	WiCell	SOP-CH-305	Recoverable attachment after passage	Pass
Identity by STR	UW Translational Research Initiatives in Pathology Laboratory	PowerPlex 16 HS System by Promega	Consistent with STR profile of donor material	Pass
Sterility	Steris	ST/07	Negative	Pass
Mycoplasma	WiCell	SOP-QU-004	Negative	Pass

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The material provided under this certificate has been subjected to the tests specified and the results and data described herein are accurate based on WiCell's reasonable knowledge and belief. Appropriate Biosafety Level practices and universal precautions should always be used with this material. For clarity, the foregoing is governed solely by WiCell's Terms and Conditions of Service, which can be found at http://www.wicell.org/privacyandterms.



**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	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.

Approval Date	Quality Assurance Approval		
25-July-2017	11/25/2019 X JKG Acting Assurance Saperd by Gay, Junna		

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**Short Tandem Repeat** Analysis

Department of Pathology and Laboratory Medicine TRIP Laboratory (Molecular) http://www.pathology.wisc.edu/research/trip

Sample Report: 12559-STR Sample Name on Tube: 12559-STR 83.6 ng/µL, (A260/280=1.94) Sample Type: Cells Cell Count: ~2 million cells

**Requestor:** WiCell Research Institute **Ouality Department** 

WiCell® info@wicell.org (888) 204-1782

Sample Date: N/A **Receive Date:** 06/19/17 Assav Date: 06/20/17 File Name: STR 170621 wmr **Report Date:** 06/23/17

STR Locus	STR Genotype Repeat #	STR Genotype
FGA	16–18,18.2,19,19.2,20,20.2,21,21.2,22, 22.2, 23, 23.2, 24, 24.2, 25, 25.2, 26–30, 31.2, 43.2, 44.2,45.2, 46.2	Identifying information has
TPOX	6-13	been redacted to
D8S1179	7-18	protect donor
vWA	10-22	confidentiality. If
Amelogenin	X,Y	more information
Penta_D	2.2, 3.2, 5, 7-17	is required, please, contact
CSF1PO	6-15	WiCell's Technical
D16S539	5, 8-15	Support.
D7S820	6-14	
D13S317	7-15	
D5S818	7-16	
Penta_E	5-24	
D18S51	8-10, 10.2, 11-13, 13.2, 14-27	
D21S11	24,24.2,25,25.2,26-28,28.2,29,29.2, 30, 30.2,31, 31.2,32,32.2,33,33.2, 34,34.2,35,35.2,36-38	
TH01	4-9,9.3,10-11,13.3	
D3S1358	12-20	

Results: Based on the 12559-STR cells submitted by WiCell QA dated and received on 06/19/17, this sample (Label on Tube: 12559-STR) exactly matches the STR profile of the human stem cell line UCSD236i-APP1-1 comprising 24 allelic polymorphisms across the 15 STR loci analyzed.

Interpretation: No STR polymorphisms other than those corresponding to the human UCSD236i-APP1-1 stem cell line were detected and 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. This result suggests that the 12559-STR sample submitted corresponds to the UCSD236i-APP1-1 stem cell line and was not contaminated with any other human stem 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 stem cell lines is ~2-5%.

X RMB Digitally Signed on 06/23/17	X WMR	Digitally Signed on	06/23/17
		, PhD, Director / Co-Direct	or

TRIP Laboratory, Molecular

UWHC Molecular Diagnostics Laboratory / UWSMPH TRIP Laboratory

Testing was accomplished by analysis of human genetic polymorphisms at STR loci. This methodology has not yet been approved by the FDA and is for investigational use only. Acknowledge TRIP in your publications, posters & presentations. For details, see: http://www.pathology.wisc.edu/research/trip/acknowledging TRIP agrees to maintain the confidentiality of any information provided to it in connection with its performance of this STR analysis on the same conditions as set forth in paragraph 2 of WiCell's Terms and Conditions of Service (http://www.wicell.org/media.acux/1a429b84-2b54-44a4-8ad8-5c05db93dd8a).

# Native Product Sterility Report



WiCell 504 S Rosa Rd, Rm 101 Madison, WI 53719			Т	SAMPLE #: DATE RECEIVED: TEST INITIATED: EST COMPLETED:	17062122 29-Jun-17 30-Jun-17 14-Jul-17		
SAMPLE NAME / DESCRIPTION:		JHU024i-DB40969 12578 JHU044i-DB41057 12579 JHU045i-DB41060 12580 JHU204i-DB36815 12581 JHU222i-DB36892 12582 JHU236i-DB37047 12583 HVRDi001-A-1-WB66254 12584 HVRDi002-A-WB65326 12585 UCSD236i-APP1-1-WB66255 12587 UCSD237i-APP1-2-DB26822 12589					
UNIQUE IDENTIFIER:		NA					
PRODUCT REGISTRATION:		Human iPS cells					
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: METHOD VALIDATION / PD #: TEST METHODOLOGY:		Processed according to LAB-003: Sterility Test Procedure 000053 USP - Direct Transfer					

## Native Product Sterility Report



COMMENTS: Sample # 17062122

lissand REVIEWED BY

DATE 17JULI

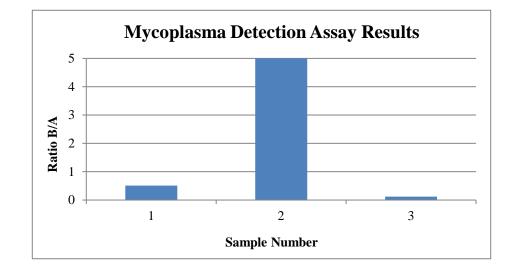
Specific test results may not be indicative of the characteristics of any other samples from the same lot or similar lots. This test report shall not be reproduced, except in full, without prior written approval. Liability is limited to the costs of the tests.



#### Mycoplasma Detection Assay Report Testing Performed by WiCell

Testing Performed by WiCell Lot Release Testing June 15, 2017 FORM SOP-QU-004.01 Version F Edition 02 Reported by: KR Reviewed by: JB BD Monolight 180

		Read	ing A	Α	Read	ing B	В	Ratio		
#	Sample Name	RLU1	RLU2	Ave	RLU1	RLU2	Ave	B/A	Result	<b>Comments/Suggestions</b>
1	UCSD236i-APP1-1-WB66255 12559	350	373	361.5	186	184	185	0.51	Negative	
2	Positive (+) Control	360	365	362.5	39997	40090	40044	110.46	Positive	
3	Negative (-) Control	605	615	610	76	69	72.5	0.12	Negative	





Date Reported: Thursday, June 29, 2017 Cell Line: UCSD236i-APP1-1-WB66255 12565 Passage#: 23 Date of Sample: 6/22/2017 Specimen: Human IPS Results: 46,XY



, 2565	Cell Line Gender: Male Reason for Testing: lot release testing				
	Investigator: , WiCell CDM				
8					
	Cell: 18				
40	Slide: G01				
12	Slide Type: Karyotype				
1 00	Total Counted: 20				
18	Total Analyzed: 9				

Total Karyogrammed: 5

Band Resolution: 400 - 450

Interpretation:

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

Completed by: Reviewed and Interpreted by:	, CG	(ASCP) , PhD, FACMG	
A signed copy of this report is a	vailable upon rec	quest.	
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 may not be relied upon by any other party without the prior written consent of the Director of the WiCell Cytogenetics Laboratory. The results of this assay are for research use only. If the results of this assay are to be used for any other purpose, contact the Director of the WiCell Cytogenetics Laboratory.

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