



## Thaw and Culture Details

Cell Line Name	<b>UCSD223i-NDC1-1</b>
WiCell Lot Number	<b>WB66285</b>
Parent Material	UCSD223i-NDC1-1-DB26652
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 Independent
	Medium: mTeSR™1
	Matrix: Matrigel®
Protocol	WiCell Feeder Independent mTeSR™1 Protocol
Passage Number	p19 These cells were cultured for 18 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 Vialied	22-June-2017
Vial Label	UCSD223i-NDC1-1 p19 WB66285
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	Pass
Post-Thaw Viable Cell Recovery	WiCell	SOP-CH-305	≥ 15 Undifferentiated Colonies, ≤ 30% Differentiation and recoverable attachment after passage	Pass
Identity by STR	UW Translational Research Initiatives in Pathology Laboratory	PowerPlex 16 HS System by Promega	Consistent with known profile	Pass
Sterility	Biotech Laboratories	ST/07	Negative	Pass
Mycoplasma	WiCell	SOP-QU-004	Negative	Pass



## Testing Reported by Provider

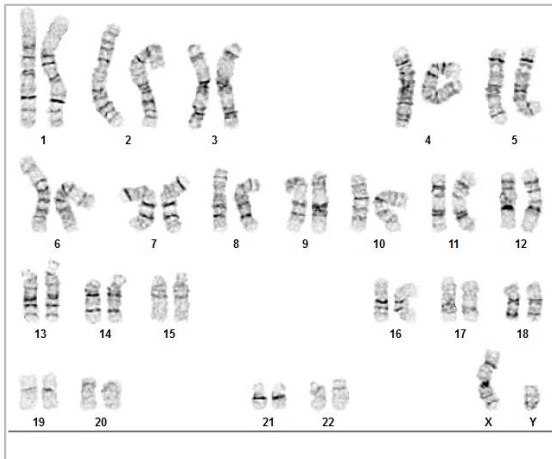
For more information, publication and dbGaP links, where available, are provided on the cell line specific web page on the WiCell website.

Test Description	Method	Result
Genetic Analysis	G-Band Karyotype	Maintained euploid karyotype
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
16-August-2017	<p style="text-align: right;">8/16/2017</p> <p>X AMK</p> <p><small>AMK Quality Assurance Signed by Klade, Anjelica</small></p>

**Date Reported:** Wednesday, July 05, 2017  
**Cell Line:** UCSD223i-NDC1-1-WB66285 12588  
**Passage#:** 19  
**Date of Sample:** 6/27/2017  
**Specimen:** Human iPSC  
**Results:** 46,XY

**Cell Line Gender:** Male  
**Reason for Testing:** lot release testing  
**Investigator:** [REDACTED] WiCell CDM



**Cell:** 51  
**Slide:** G02  
**Slide Type:** Karyotype

**Total Counted:** 20  
**Total Analyzed:** 8  
**Total Karyogrammed:** 4  
**Band Resolution:** 475 - 550

### Interpretation:

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

**Completed by:** [REDACTED], CG(ASCP)  
**Reviewed and Interpreted by:** [REDACTED], PhD, FACMG  
**A signed copy of this report is available upon request.**

**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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# Short Tandem Repeat Analysis

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

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

**Sample Report:**

12588-STR  
**Sample Name on Tube:** 12588-STR  
127.5 ng/μL, (A260/280=2.03)  
**Sample Type:** Cells  
**Cell Count:** ~2 million cells

**Requestor:**

WiCell Research Institute  
Quality Department

**Sample Date:** N/A

**Receive Date:** 07/03/17  
**Assay Date:** 07/05/17  
**File Name:** STR 170707 wmr  
**Report Date:** 07/11/17

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 been redacted to protect donor confidentiality. If more information is required, please, contact <a href="#">WiCell's Technical Support</a> .
TPOX	6-13	
D8S1179	7-18	
vWA	10-22	
Amelogenin	X,Y	
Penta_D	2.2, 3.2, 5, 7-17	
CSF1PO	6-15	
D16S539	5, 8-15	
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 12588-STR cells submitted by WiCell QA dated and received on 07/03/17, this sample (Label on Tube: 12588-STR) exactly matches the STR profile of the human stem cell line UCSD223i-NDC1-1 comprising 27 allelic polymorphisms across the 15 STR loci analyzed.

**Interpretation:** No STR polymorphisms other than those corresponding to the human UCSD223i-NDC1-1 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 12588-STR sample submitted corresponds to the UCSD223i-NDC1-1 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<sub>RMB</sub>

Digitally Signed on 07/12/17

TRIP Laboratory, Molecular

X<sub>WMR</sub>

Digitally Signed on 07/12/17

PhD, Director / Co-Director  
UWHC Molecular Diagnostics Laboratory / UWSMPH TRIP Laboratory

# Native Product Sterility Report



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

SAMPLE #: 17071248  
DATE RECEIVED: 20-Jul-17  
TEST INITIATED: 24-Jul-17  
TEST COMPLETED: 07-Aug-17

SAMPLE NAME / DESCRIPTION: HVRDi002-A-1-WB66253 12586  
WA01-WB66269 12611  
UCSD238i-APP1-3-DB26825 12612  
UCSD223i-NDC1-1-WB66285 12613  
WC025i-FXS-Nluc2-WB66292 12614  
WC024i-FXS-Nluc1-WB66443 12615  
WIC09i-02-11E-WB66435 12616  
CREM023i-SS35-1-WB66438 12617  
WIC08i-02-11E-WB66437 12618  
UCSD239i-APP2-1-WB66436 12619

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: Processed according to LAB-003: Sterility Test Procedure  
METHOD VALIDATION / PD #: 000053  
TEST METHODOLOGY: USP - Direct Transfer

COMMENTS: NA

REVIEWED BY *D. S. S. S.*

DATE 08AUG17

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

Lot Release Testing

June 28, 2017

FORM SOP-QU-004.01

Version F Edition 02

Reported by: KR

Reviewed by: JB

BD Monolight 180

#	Sample Name	Reading A			Reading B			Ratio B/A	Result	Comments/Suggestions
		RLU1	RLU2	Ave	RLU1	RLU2	Ave			
1	UCSD223i-NDC1-1-WB66285 12588	133	145	139	64	65	64.5	0.46	Negative	
2	Positive (+) Control	317	301	309	20490	20541	20516	66.39	Positive	
3	Negative (-) Control	423	431	427	57	65	61	0.14	Negative	

