

Thaw and Culture Details

Cell Line Name	UCSD225i-NDC1-3							
WiCell Lot Number	DB26676							
Provider	University of California, San Diego – Laboratory of Dr. Lawrence Goldstein							
Banked By	University of California, San Diego – Laboratory of Dr. Lawrence Goldstein							
Thaw and Culture Recommendations	WiCell recommends thawing 1 vial into 12 wells of a 6 well plate using Stem Cell Culture Medium and MEF.							
Protocol	WiCell Feeder Dependent Protocol							
Culture Platform Prior to Freeze Feeder Dependent								
	Medium: hUES Medium							
	Matrix: MEF							
Passage Number	p10 These cells were cultured for 9 passages prior to freeze and post reprogramming. The Provider adds +1 to the passage number to best represent the overall passage number of the cells at thaw.							
Date Vialed	11-June-2015							
Vial Label	iPS NDC1.3 p10 6/11/15 CH thaw in 6 well							
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	Recoverable attachment after passage	Pass					
Identity by STR	UW Translational Research Initiatives in Pathology Laboratory	PowerPlex 16 HS System by Promega	Defines profile	Pass					
Sterility	Biotest 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	Differentiated into cells of ectodermal, mesodermal, and endodermal lineages in vitro.				
	rats					

Approval Date	Quality Assurance Approval		
13-September-2024	9/13/2024 X HH HH Guality Assurance Sugned by Heft, Hunter		



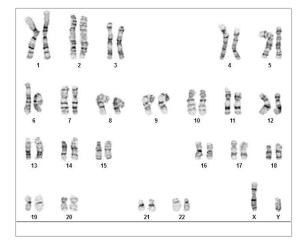
Chromosome Analysis Report: 066943

Date Reported: Wednesday, July 12, 2017 Cell Line: UCSD225i-NDC1-DB26676 12595

Passage#: 10

Date of Sample: 7/3/2017 Specimen: Human IPS

Results: 46,XY



Cell Line Gender: Male

Reason for Testing: lot release testing

Investigator: , WiCell CDM

Cell: 27 Slide: 3

Slide Type: Karyotype

Total Counted: 20
Total Analyzed: 8

Total Karyogrammed: 4
Band Resolution: 450 - 500

Interpretation:

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

Completed by:
Reviewed and Interpreted by:

MS, CG(ASCP)
tgomery, 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

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

Department of Pathology and Laboratory Medicine TRIP Laboratory (Molecular)

http://www.pathology.wisc.edu/research/trip

Sample Report: 12595-STR

Sample Name on Tube: 12595-STR

 $30.8 \text{ ng/}\mu\text{L}$, (A260/280=2.49)

Sample Type: Cells

Cell Count: ~2 million cells

Requestor:

WiCell Research Institute Quality Department **Sample Date:** N/A **Receive Date:** 07/10/17

Assay Date: 07/18/17 File Name: 170720 STR TCS

Report Date: 07/21/17

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									
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,							
CSF1PO	6-15	please, contact 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								

<u>Results:</u> Based on the 12595-STR cells submitted by WiCell QA dated and received on 07/10/17, this sample (Label on Tube: 12595-STR) defines the STR profile of the human stem cell line UCSD225i-NDC1-3 comprising 27 allelic polymorphisms across the 15 STR loci analyzed.

Interpretation: No STR polymorphisms other than those corresponding to the human UCSD225i-NDC1-3 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 12595-STR sample submitted corresponds to the UCSD225i-NDC1-3 stem cell line and was not contaminated with any other human stem cells or a significant amount of mouse feeder layer cells.

<u>Sensitivity:</u> 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	07/21/17	X WMR	Digitally Signed on 07/21/17
TRIP La	boratory, Molecular		UWHC Mole	, PhD, Director / Co-Director lecular Diagnostics Laboratory / UWSMPH TRIP Laborator

Sterility Report

Biotest Laboratories, Inc.

Making life-saving products possible

WiCell	Research Institute, Inc.
MAGO ALL	Quality Assurance

BIOTEST SAMPLE #

16100501

WiCell Quality Assurance 504 South Rosa Road, Room 101

VALIDATION #

NG

Madison, WI 53719

TEST PURPOSE

NG

PRODUCT

R366.4 WB47080 11873, MIN08i-33114.B WB47099 11874, WC021i-SMA-GM15 WB47071 11875, WC022i-SMA-GM77 WB47072 11876, WC023i-SMA-GM232 WB47173 11877, UCSD236i-APP1-1 DB26819 11878, UCSD224i-NDC1-2 DB26664 11879, UCSD225i-NDC1-3 DB26676 11880, UCSD227i-NDC2-2 DB26792 11881, UCSD228i-NDC2-3

DB26795 11882

PRODUCT LOT

NA

STERILE LOT

NA

BILOT

NA

STERILIZATION LOT

NA

BI EXPIRATION DATE NA

2016-10-06

STERILIZATION DATE

NA

DATE RECEIVED

STERILIZATION METHOD NA

TEST INITIATED

2016-10-21

SAMPLING BLDG / ROOM NA

TEST COMPLETED

2016-11-04

REFERENCE

Processed according to LAB-003: Sterility Test Procedure

Ten (10) products were each divided between 40 mL TSB and 40 mL FTG. The samples were then cultured at 20-25 C and 30-35 C respectively and were monitored for a

minimum of 14 days.

USP

BI Manufacturers Specifications

Other

RESULTS Sterile # POSITIVES 0

TESTED 10

POSITIVE CONTROL

NEGATIVE CONTROL

NA

2 Negatives

COMMENTS NA

REVIEWED BY Sand

DATE 09NOUL6

Specific test results may not be indicative of the characteristics of any other samples from the same lot or similar lots. Liability is limited to the costs of the tests. The uncertainty of measurement associated with the measurement result reported in this certificate is available from the organization upon request.



Mycoplasma Detection Assay Report Testing Performed by WiCell

Testing Performed by WiCell Lot Release Testing July 6, 2017 FORM SOP-QU-004.01 Version F Edition 02 Reported by: KR Reviewed by: JB BD Monolight 180

		Reading A		A	Read	ling B	В	Ratio		
#	Sample Name	RLU1	RLU2	Ave	RLU1	RLU2	Ave	B/A	Result	Comments/Suggestions
1	UCSD225i-NDC1-3-DB26676 12595	526	530	528	268	259	263.5	0.50	Negative	
2	Positive (+) Control	453	451	452	37998	38147	38073	84.23	Positive	
3	Negative (-) Control	689	716	702.5	102	97	99.5	0.14	Negative	

