

Thaw and Culture Details

Cell Line Name	UCSD209i-24-1					
WiCell Lot Number	WB57661					
Provider	University of California, San Diego – Dr. Kelly Frazer					
Banked By	WiCell					
Thaw and Culture Recommendations	WiCell recommends thawing 1 vial into 4 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 Vialed	17-January-2017					
Vial Label	UCSD209i-24-1					
	p19					
	WB57661					
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	Cell 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	Defines profile	Pass					
Sterility	Steris	ST/07	Negative	Pass					
Mycoplasma	WiCell	SOP-QU-004	Negative	Pass					

Testing Reported by Provider

The Provider stated that some or all of the additional analyses 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.

- Illumina® HumanCoreExome BeadChip Array
- RNA-Seq
- Flow Cytometry (SSEA-4, Tra 1-81)
- Infinium® Expanded Multi-Ethnic Genotyping Array (MEGAEX)



Approval Date	Quality Assurance Approval		
07-February-2017	10/18//2017 RK Quality Assurance Signed by Kremers, Erik		



Chromosome Analysis Report: 068034

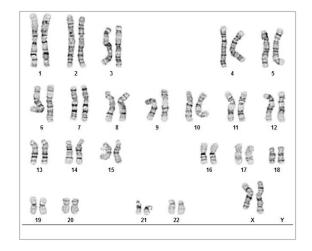
Date Reported: Monday, October 02, 2017 Cell Line: UCSD209i-24-1-WB57661 12908

Passage#: 19

Date of Sample: 9/20/2017 Specimen: Human IPS

Results: 46,XX

Nonclonal findings: 47,XX,+20



Cell Line Gender: Female

Reason for Testing: lot release testing

Investigator:

Cell: 23 Slide: G02

Slide Type: Karyotype

Total Counted: 40
Total Analyzed: 8
Total Karyogrammed: 4
Band Resolution: 450 - 475

Interpretation:

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

There is one nonclonal finding, listed above. Standard analysis requires that chromosomes are counted in twenty cells. Twenty additional cells were examined with no further evidence of this nonclonal aberration. Nonclonal findings likely result from technical artifact, but may be due to a developing clonal abnormality or to low-level mosaicism.

Com Reviewed and Interp	preted by:		
A signed copy of thi	s report is available upon r	equest.	
Date:	Sent Ry:	Sent To:	OC Paview Rv

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.

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. 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 Analysis

info@wicell.org (888) 204-1782

Department of Pathology and Laboratory Medicine TRIP Laboratory (Molecular)

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

Sample Report: 12908-STR

Sample Name on Tube: 12908-STR

 $78.7 \text{ ng/}\mu\text{L}$, (A260/280=1.88)

Sample Type: Cells

Cell Count: ~2 million cells

Requestor:

WiCell Research Institute **Ouality Department**

Sample Date: N/A

Receive Date: 09/25/17 **Assav Date:** 09/26/17

File Name: STR 170927 wmr

Report Date: 10/06/17

STR Locus	ocus STR Genotype Repeat #							
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	Penta D 2.2, 3.2, 5, 7-17							
CSF1PO	6-15	please, contact WiCell's Technical						
D16S539								
D7S820	D13S317 7-15 D5S818 7-16 Penta_E 5-24							
D13S317								
D5S818								
Penta_E								
D18S51								
D21S11								
TH01	4-9,9.3,10-11,13.3							
D3S1358	12-20							

Results: Based on the 12908-STR cells submitted by WiCell QA dated and received on 09/25/17, this sample (Label on Tube: 12908-STR) defines the STR profile of the human stem cell line UCSD209i-24-1 comprising 30 allelic polymorphisms across the 15 STR loci analyzed.

Interpretation: No STR polymorphisms other than those corresponding to the human UCSD209i-24-1 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 12908-STR sample submitted corresponds to the UCSD209i-24-1 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 $\sim 2-5\%$.

X RMB	Digitally Signed on	10/06/17	X WMR	Digitally Signed on	10/06/17
TRIP La	boratory, Molecular		UWHC Mole	, PhD, Director / Co-Direct ecular Diagnostics Laboratory / UW	

Native Product Sterility Report



WiCell

504 S Rosa Rd, Rm 101 Madison, WI 53719 CORRECTED REPORT SAMPLE #:

17090875

DATE RECEIVED:

14-Sep-17

TEST INITIATED:

18-Sep-17

TEST COMPLETED:

02-Oct-17

SAMPLE NAME / DESCRIPTION:

MCW003i-40001883-WB66553_12835, MCW047i-U2234-WB66549_12836, MCW071i-U2177-WB66552_12837, MCW086i-40000176-WB66545_12838, MCW090i-40000374-WB66557_12839, MCW091i-U2202-WB66554_12840,

MCW097i-400001654-WB66548_12841, MCW112i-40000893-WB66551_12842, MCW116i-40001890-WB66550_12843, MCW073i-40000527-

WB66570_12844, MCW060i-U2183-WB66559_12845, JFHZ4-WB66573_12846, JFHZ5-WB66587_12847, JFHZ6-WB66583_12848, JFMD6-WB66581_12849, JFNY2-WB66584_12850, JFRBi5-WB66569_12851, JFWT2-WB66586_12852, JFWT4-WB66582_12853, UCSD239i-APP2-1-WB66585_12854, MCW100i-U2341-WB66575_12881, MCW114i-U2144-WB66566_12882, iPS(IMR90)-2-

WB66588_12883, UCSD035i-4-4-WB62259_12884, UCSD064i-20-2-WB63303_12885, UCSD143i-87-1-WB57685_12886, UCSD161i-93-1-WB54536_12887, UCSD199i-107-1-WB59910_12888, UCSD209i-24-1-

WB57661_12889, UCSD081i-1-14-WB61903_12890

UNIQUE IDENTIFIER:

NA

PRODUCT REGISTRATION:

Other: Human iPS Cells

TEST RESULTS:

	# Positives	
# Tested	(Growth)	- Control
30	0	2 Negatives

TEST SUMMARY:

# Samples	Media Type	Volume (mL)	Incubation Temperature (° C)	Incubation Duration (Days)
30	TSB	40	20-25	14
30	FTG	40	30-35	14

REFERENCE:

Processed according to LAB-003: Sterility Test Procedure

METHOD VALIDATION / PD #:

000053

TEST METHODOLOGY:

USP - Direct Transfer

Native Product Sterility Report



COMMENTS:

Sample # 17090875

Report revised due to Customer request to update Sample Name / Description.

REVIEWED BY DAT

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 September 21, 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	UCSD209i-24-1-WB57661 12908	209	206	207.5	84	83	83.5	0.40	Negative	
2	Positive (+) Control	425	430	427.5	25424	25612	25518	59.69	Positive	
3	Negative (-) Control	643	667	655	70	72	71	0.11	Negative	

