



Thaw and Culture Details

Cell Line Name	UCSD156i-12-2
WiCell Lot Number	WB61889
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	p18 These cells were cultured for 17 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	29-March-2017
Vial Label	UCSD156i-12-2 p18 WB61889
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
	Results: 46,XY,inv(3)(p21.3p25)[6]/46,XY[14] Interpretation: This is an abnormal karyotype. A paracentric inversion of chromosome 3 is present in six of twenty cells examined. This chromosomal aberration is not considered recurrently acquired in cultures of this cell type. No other clonal abnormalities were detected at the stated band level of resolution.			
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	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 (MEGA^{EX})

Approval Date	Quality Assurance Approval
23-May-2017	<p style="text-align: right;">7/22/2018</p> <p>X JKG</p> <p>JKG Quality Assurance Signed by Gay, Jenna</p>

Date Reported: Wednesday, June 20, 2018

Cell Line: UCSD156i-12-2-WB61889 13731

Passage#: 18

Date of Sample: 6/14/2018

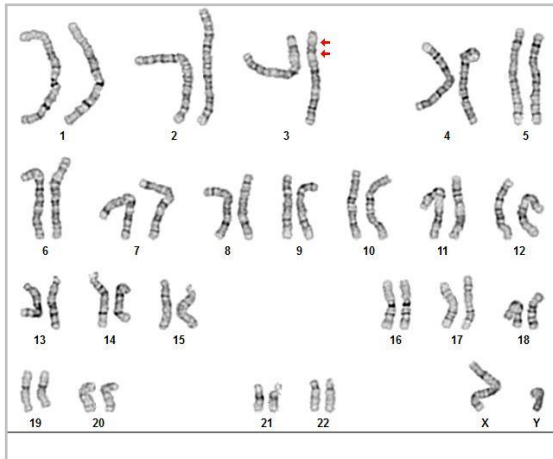
Specimen: Human IPS

Results: 46,XY,inv(3)(p21.3p25)[6]/46,XY[14]

Cell Line Sex: Male

Reason for Testing: lot release testing

Investigator: [REDACTED] WiCell



Cell: 97

Slide: G03

Slide Type: Karyotype

Total Counted: 20

Total Analyzed: 9

Total Karyogrammed: 5

Band Resolution: 450 - 575

Interpretation:

This is an abnormal karyotype. A paracentric inversion of chromosome 3 is present in six of twenty cells examined. This chromosomal aberration is not considered recurrently acquired in cultures of this cell type. No other 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 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. 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.

Sample Report:

13731-STR

Sample Name on Tube: 13731-STR

90.0 ng/μL, (A260/280=1.93)

Sample Type: Cells**Cell Count:** ~2 million cells**Requestor:**

WiCell Research Institute

Quality Department

Sample Date: N/A**Receive Date:** 06/25/18**Assay Date:** 06/26/18**File Name:** STR 180627 wmr**Report Date:** 07/05/18

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 WiCell's Technical Support .
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 13731-STR cells submitted by WiCell QA dated and received on 06/25/18, this sample (Label on Tube: 13731-STR) defines the STR profile of the human stem cell line UCSD156i-12-2 comprising 27 allelic polymorphisms across the 15 STR loci analyzed.

Interpretation: No STR polymorphisms other than those corresponding to the human UCSD156i-12-2 stem cell line were detected however, allelic imbalance (denoted by ** in table above) was observed at the D16S539 loci and could be the result of chromosomal gains and/or losses in this cell line. 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 13731-STR sample submitted corresponds to the UCSD156i-12-2 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%.



Digitally Signed on 07/05/18

[Redacted], BA
TRIP Laboratory, Molecular

Digitally Signed on 07/05/18

[Redacted], PhD, Director / Co-Director
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

**CORRECTED
REPORT**

SAMPLE #: 18020925
DATE RECEIVED: 15-Feb-18
TEST INITIATED: 20-Feb-18
TEST COMPLETED: 06-Mar-18

SAMPLE NAME / DESCRIPTION:

UCSD084i-6-1 WB61879 13391,UCSD089i-15-1 WB61822 13392
UCSD131i-77-1 WB62260 13393, UCSD134i-80-1 WB62286 13394
UCSD145i-89-1 WB61873 13395, UCSD156i-12-2 WB61889 13396
UCSD171i-100-1 WB62271 13397, UCSD174i-18-2 WB62018 13398
UCSD183i-102-1 WB62287 13399, UCSD186i-103-1 WB62268 13400
UCSD211i-32-1 WB62424 13401, UCSD087i-6-4 WB63448 13402
UCSD090i-15-2 WB62824 13403, UCSD120i-39-1 WB63446 13404
UCSD124i-7-1 WB62648 13405, UCSD149i-10-4 WB63469 13406
UCSD169i-22-2 WB63540 13407, UCSD203i-109-1 WB62436 13408
UCSD096i-34-1 WB64879 13409, UCSD101i-36-2 WB63523 13410
UCSD121i-39-2 WB64666 13411, UCSD122i-73-1 WB63538 13412
UCSD130i-76-1 WB64881 13413, UCSD138i-84-1 WB63874 13414
UCSD141i-37-2 WB65028 13415, UCSD144i-88-1 WB63539 13416
UCSD157i-12-3 WB64922 13417, UCSD159i-91-1 WB64880 13418
UCSD123i-74-1 WB53944 13419, UCSD126i-7-3 WB53933 13420
UCSD185i-8-2 WB54165 13421, UCSD086i-6-3 WB58711 13422
UCSD091i-15-3 WB58791 13423, UCSD118i-38-1 WB57664 13424
UCSD127i-7-4 WB58690 13425, UCSD137i-83-1 WB58970 13426
UCSD142i-86-1 WB58721 13427, UCSD146i-10-1 WB58698 13428
UCSD148i-10-3 WB58204 13429, UCSD162i-94-1 WB58792 13430
UCSD176i-17-1 WB58933 13431, UCSD177i-17-2 WB57849 13432
UCSD202i-108-1 WB57850 13433, UCSD205i-110-1 WB58200 13434
MCW038i-40000503 WB66475 13435, MCW005i-40002552 WB66498 13436
MCW019i-A7230 WB66534 13437, MCW022i-A2965 WB66509 13438
MCW023i-A2121 WB66535 13439, MCW027i-50000784 WB66536 13440

UNIQUE IDENTIFIER: NA

PRODUCT REGISTRATION: Other: Human iPS cells

Native Product Sterility Report



TEST RESULTS:

# Tested	# Positives (Growth)	- Control
50	0	Negative

TEST SUMMARY:

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

REFERENCE: Processed according to LAB-003: Sterility Test Procedure

METHOD VALIDATION / PD #: 000053

TEST METHODOLOGY: USP - Direct Transfer

COMMENTS: Report revised due to incorrect Volume.

Sample #18020925

"Reported As" per packing slip

REVIEWED BY

DATE

11 OCT 18

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 14, 2018

FORM SOP-QU-004.01

Version G Edition 02

Reported by: AP

Reviewed by: KR

BD Monolight 180

#	Sample Name	Reading A		A Ave	Reading B		B Ave	Ratio B/A	Result	Comments/Suggestions
		RLU1	RLU2		RLU1	RLU2				
1	UCSD156i-12-2-WB61889 13731	328	337	332.5	102	103	102.5	0.31	Negative	
2	Positive (+) Control	560	600	580	21715	21834	21775	37.54	Positive	
3	Negative (-) Control	910	902	560	91	87	89	0.16	Negative	

