



Thaw and Culture Details

Cell Line Name	WA09-PCBC
WiCell Lot Number	DB36899
Provider	University of Wisconsin – Laboratory of Dr. James Thomson
Banked By	National Heart, Lung and Blood Institute Progenitor Cell Biology Consortium (NHLBI PCBC)
Thaw and Culture Recommendations	WiCell recommends thawing 1 vial into 2 wells of a 6 well plate. WiCell recommends thawing using ROCK Inhibitor for best results. The Provider recommends only dispase passaging.
Culture Platform	Feeder Independent
	Medium: mTeSR™1
	Matrix: Matrigel®
Protocol	WiCell Feeder Independent mTeSR™1 Protocol
Passage Number	p30 These cells were cultured for 29 passages prior to freeze. The Provider adds +1 to the passage number at freeze to best represent what the overall passage number of the cells at thaw. Therefore, plated cells at thaw should be labeled passage 30.
Date Viald	18-August-2015
Vial Label	SC14-067 p30+14 18Aug2015 RAS
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 known 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 Synapse links, where available, are provided on the cell line specific web page on the WiCell website.

- RNA-Seq
- Teratoma representative of all three embryonic germ layers identified in all tumors with histopathological analysis
- SNP microarray
- Immunostaining analysis to confirm pluripotency and OCT4 to evaluate the presence of undifferentiated PSC
- mRNA, miRNA, and methylation profiling
- Genomics characterization
- Flow Cytometry (SSEA-1, SSEA-4, Tra 1-61, Tra 1-80, CD9, OCT-4)

Approval Date	Quality Assurance Approval
17-January-2019	<p style="text-align: right;">7/10/2020</p> <p>X AA _____ AA Quality Assurance Signed by: Arntz, Andy</p>

Date Reported: Monday, December 31, 2018

Cell Line: WA09-DB36899 14195

Passage#: 31

Date of Sample: 12/17/2018

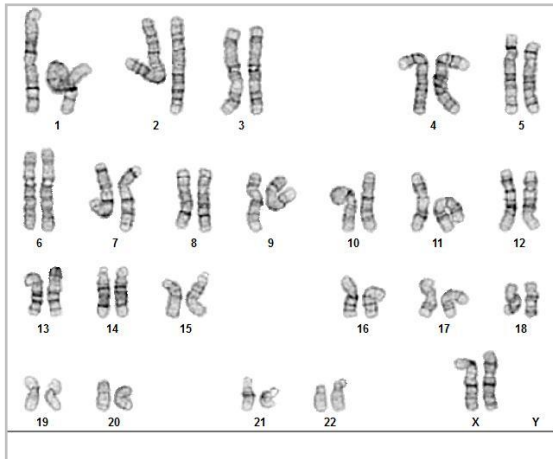
Specimen: Human ES

Results: 46,XX

Cell Line Sex: Female

Reason for Testing: lot release testing

Investigator: [REDACTED], WiCell



Cell: 36

Slide: G03

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: [REDACTED], CG(ASCP)

Reviewed and Interpreted by: [REDACTED], PhD, FACMG

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.



HISTOLOGY - IHC - MOLECULAR - IMAGING

Department of Pathology and Laboratory Medicine
TRIP Laboratory (Molecular)
<https://research.pathology.wisc.edu/trip/>
(608) 265-9168

Short Tandem Repeat Analysis



Your Lab Partner

characterization@wicell.org
(608) 316-4145

Sample Report:

14195-STR

Sample Name on Tube: 14195-STR

73.5 ng/μL, (A260/280=1.79)

Sample Type: Cells

Cell Count: ~2 million cells

Requestor:

WiCell Research Institute

Quality Assurance Department

Receive Date: 01/02/19

Report Sent: 01/07/19

Assay Date: 01/02/19

File Name: STR 190103 revised wmr

Report Date: 01/07/19

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	26,28
TPOX	6-13	10,11
D8S1179	7-18	8,14
vWA	10-22	17,17
Amelogenin	X,Y	X,X
Penta_D	2.2, 3.2, 5, 7-17	9,13
CSF1PO	6-15	11,11
D16S539	5, 8-15	12,13
D7S820	6-14	9,11
D13S317	7-15	9,9
D5S818	7-16	11,12
Penta_E	5-24	11,14
D18S51	8-10, 10.2, 11-13, 13.2, 14-27	13,13
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	30,30
TH01	4-9,9.3,10-11,13.3	9.3,9.3
D3S1358	12-20	13,16

Results: Based on the 14195-STR cells submitted by WiCell QA dated and received on 01/02/19, this sample (Label on Tube: 14195-STR) exactly matches the STR profile of the human stem cell line WA09 comprising 24 allelic polymorphisms across the 15 STR loci analyzed.

Interpretation: No STR polymorphisms other than those corresponding to the human WA09 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 14195-STR sample submitted corresponds to the WA09 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 01/07/19

██████████, BA
TRIP Laboratory, Molecular

X *WMR*

Digitally Signed on 01/07/19

██████████, 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>
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Native Product Sterility Report



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

SAMPLE #: 18121076
DATE RECEIVED: 13-Dec-18
TEST INITIATED: 17-Dec-18
TEST COMPLETED: 31-Dec-18

SAMPLE NAME / DESCRIPTION: LUEL8363i-3 WB66952 14169, JHU088i DB41240 14170, JHU132i DB36272 14171, JHU102i DB41279 14172, JHU103i DB36236 14173, iPS DF19-9-7T DB36826 14174, iPS DF4-3-7T.A DB36837 14175, iPS DF6-9-9T.B DB36844 14176, MIRJT7i-mND2-0 DB36854 14177, IISH1i-BM1 DB36864 14178, IISH2i-BM9 DB36871 14179, IISH3i-CB6 DB36881 14180, WA01 DB36785 14181, WA07 DB36888 14182, WA09 DB36899 14183, WA24 DB36798 14184, JHU155i DB41365 14185, JHU184i DB41392 14186, JHU142i DB41344 14187, WA09 NA65899 14189.

UNIQUE IDENTIFIER: NA

TEST RESULTS:

# Tested	# Positives (Growth)	- Control
20	1	2 Negatives

TEST SUMMARY:

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

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

PD #: 000053

TEST METHODOLOGY: USP - Direct Transfer

COMMENTS: Sample labeled P142 P6 6/16/16 0.9M is positive in TSB and FTG media.

Reported as per packing slip.

REVIEWED BY _____

DATE 02 JAN 19

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. Results applied to samples as received.



Mycoplasma Detection Assay Report

Testing Performed by WiCell

Lot Release Testing

December 13, 2018

FORM SOP-QU-004.01

Version G Edition 02

Reported by: SM

Reviewed by: JB

Berthold Flash n' Glow 539

#	Sample Name	Reading A			Reading B			Ratio B/A	Result	Comments/Suggestions
		RLU1	RLU2	Ave	RLU1	RLU2	Ave			
1	WA09-DB36899 14195	123	124	123.5	55	52	53.5	0.43	Negative	
2	Positive (+) Control	190	185	187.5	10777	10762	10770	57.44	Positive	
3	Negative (-) Control	297	292	294.5	29	26	27.5	0.09	Negative	

