




Product Information and Testing

Product Information

Product Name	WA01
Alias	H1
Lot Number	WB0112
Depositor	WiCell
Banked by	WiCell
Thaw Recommendation	Thaw 1 vial into 3 wells of a 6 well plate.
Culture Platform	Feeder Independent
	Medium: mTeSR1
	Matrix: Matrigel
Protocol	WiCell Feeder Independent Protocol
Passage Number	p20 These cells were cultured for 19 passages prior to freeze, 3 of them in mTeSR1/Matrigel. WiCell adds +1 to the passage number at freeze so that the number on the vial best represents the overall passage number of the cells at thaw.
Date Viald	13-December-2011
Vial Label	WB0112 WA01 p20 MW 13DEC11
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
Post-Thaw Viable Cell Recovery	WiCell	SOP-CH-305	≥ 15 Undifferentiated Colonies, ≤ 30% Differentiation and recoverable attachment after passage	Pass
Identity by STR	UW Molecular Diagnostics Laboratory	PowerPlex 16 HS System by Promega	Consistent with known profile	Pass
Sterility	Apptec	30774	Negative	Pass
Mycoplasma	WiCell	SOP-QU-004	Negative	Pass
Karyotype by G-banding	WiCell	SOP-CH-003	Expected karyotype	Pass

Date of Lot Release	Quality Assurance Approval
28-October-2013	<div style="text-align: right;">10/28/2013</div> <div style="text-align: center;">  X AMC AMC Quality Assurance Signed by: XXXXXXXXXX </div>

Short Tandem Repeat Analysis*

Sample Report: 10849-STR

Label on Tube: 10849-STR

Sample Date: 09/06/13

Received Date: 09/06/13

Requestor: WiCell Research Institute

Test Date: 09/11/13

File Name: 130911 STR CLN

Report Date: 09/13/13

Sample Name: (label on tube) 10849-STR

Description: DNA Extracted by WiCell
251.5 ng/ μ L; 260/280 = 1.98

Locus	Repeat #	STR Genotype
D16S539	5, 8-15	9,13
D7S820	6-14	8,12
D13S317	7-15	8,11
D5S818	7-15	9,11
CSF1PO	6-15	12,13
TPOX	6-13	8,11
Amelogenin	NA	X,Y
TH01	5-11	9,3,9,3
vWA	11, 13-21	15,17

Comments: Based on the 10849-STR DNA dated and received on 09/06/13 from WI Cell, this sample (Label on Tube: 10849-STR) matches exactly the STR profile of the human stem cell line WA01 (H1) comprising 15 allelic polymorphisms across the 8 STR loci analyzed. No STR polymorphisms other than those corresponding to the human WA01 (H1) 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. These results suggest that the 10849-STR DNA sample submitted corresponds to the WA01 (H1) stem cell line and was not contaminated with any other human stem cells or a significant amount of mouse feeder layer cells. Sensitivity limits for detection of STR polymorphisms unique to either this or other human stem cell lines is ~5%.

9/13/13

Date

9/13

Date

Molecular Diagnostics Laboratory

Molecular Diagnostics Laboratory

* Testing to assess engraftment following bone marrow transplantation 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.

Test Facility:



This report is confidential. No part may be used for advertising or public announcement without written permission. Results apply only to the sample(s) tested.

Report Number
889880
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WiCell Research Institute



February 20, 2012
P.O. #:

STERILITY TEST REPORT

Sample Information:

- 1: WA01-WB0106 10381
- 2: WA01-WB0108 10382
- 3: WA01-pMCB-W.1 10383
- 4: iPS(IMR90)-1-MCB-01-F 10384
- 5: iPS(IMR90)-4-CB-02 10385
- 6: WA01-WB0111 10386
- 7: WA01-WB0112 10387
- 8: WA01-WB0113 10388
- 9: MIRJT7i.mND2.0-WB0119 10389

Date Received:

January 31, 2012

Date in Test:

February 03, 2012

Date Completed:

February 17, 2012

Test Information:

Test Codes: 30744, 30744A
Immersion, USP / 21 CFR 610.12
Procedure #: BS210WCR.201

TEST PARAMETERS	PRODUCT	
Approximate Volume Tested	0.5 mL	0.5 mL
Number Tested	18	18
Type of Media	SCD	FTM
Media Volume	400 mL	400 mL
Incubation Period	14 Days	14 Days
Incubation Temperature	20 °C to 25 °C	30 °C to 35 °C
RESULTS	18 NEGATIVE	18 NEGATIVE

QA Reviewer

02-21-12
Date

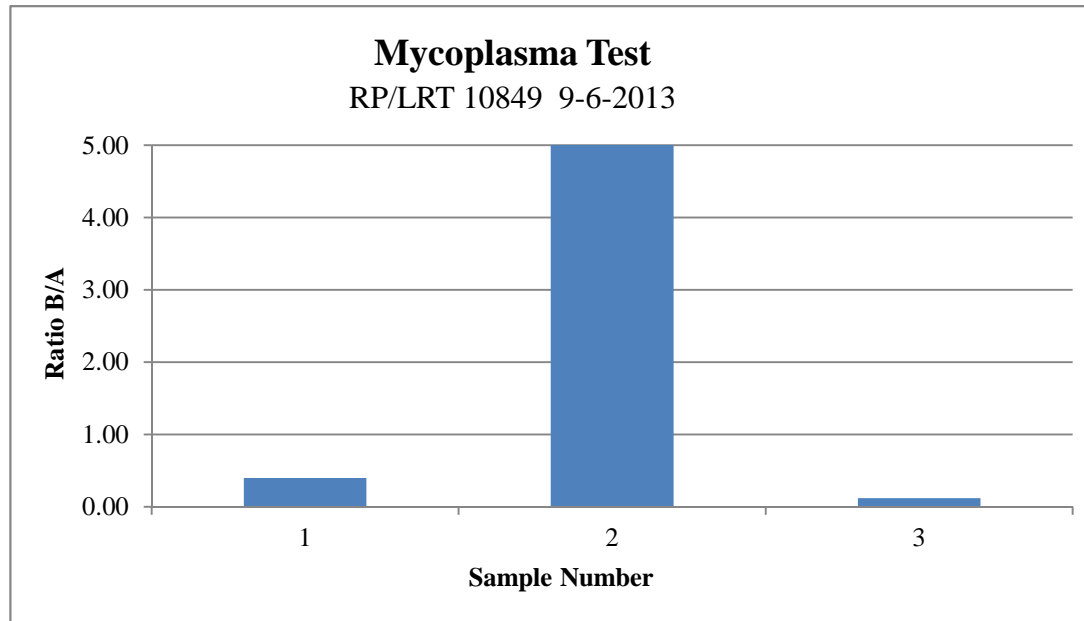
Technical Reviewer

02-20-12
Date

Testing conducted in accordance with current Good Manufacturing Practices.



Sample Number and ID	Reading A		A Average	Reading B		B Average	Ratio B/A	Mycoplasma Results	Comments/Suggestions
	A1	A2		B1	B2				
1 10849-WA01-WB0112-T.9	173	183	178	70	72	71	0.40	Negative	
2 Positive (+) Control	217	225	221	19030	18980	19005	86.00	Positive	
3 Negative (-) Control	488	469	478.5	55	62	58.5	0.12	Negative	



Date Reported: Tuesday, August 20, 2013

Cell Line: WA01-WB0112 10849

Passage#: 21

Date of Sample: 8/14/2013

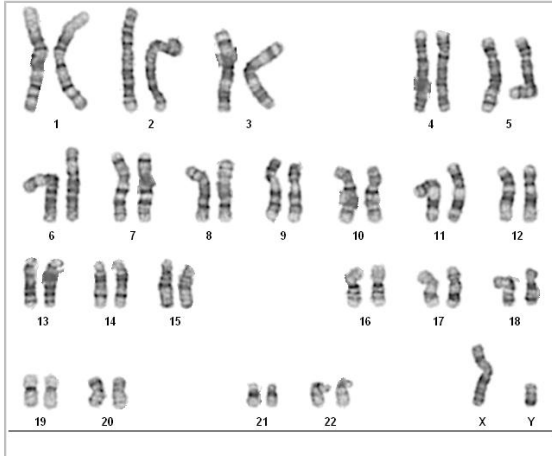
Specimen: hESC

Results: 46,XY

Cell Line Gender: Male

Reason for Testing: Lot release testing

Investigator: [REDACTED] WiCell CDM



Cell: 17

Slide: 2

Slide Type: Karyotype

Total Counted: 20

Total Analyzed: 8

Total Karyotyped: 4

Band Resolution: 450 - 525

Interpretation:

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

Completed by: [REDACTED] MS, 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.