

Thaw and Culture Details

Product Name	WC007i-FX13-2				
Lot Number	WB16523				
Depositor	University of Wisconsin – Laboratory of Dr. Anita Bhattacharyya				
Banked by	WiCell				
Thaw Recommendation	Thaw 1 vial into 1 well of a 6 well plate.				
Culture Platform	Feeder Dependent				
	Medium: hESC Medium (KOSR)				
	Matrix: MEF				
Protocol	WiCell Feeder Dependent Protocol				
Passage Number	p16				
	These cells were cultured for 15 passages prior to freeze on MEF. 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 Vialed	02-January-2015				
Vial Label	WC007i-FX13-2				
	p16				
	WB16523				
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	≥ 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	Consistent with STR profile of donor material	Pass
Sterility	Steris	ST/07	Negative	Pass
Mycoplasma	WiCell	SOP-QU-004	Negative	Pass

Date of Lot Release	Quality Assurance Approval		
07-April-2015	11/15/2019 JKG Quality Assurance Signed by: Gay, Jenna		

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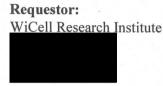
The material provided under this certificate has been subjected to the tests specified and the results and data described herein are accurate based on WiCell's reasonable knowledge and belief. Appropriate Biosafety Level practices and universal precautions should always be used with this material. For clarity, the foregoing is governed solely by WiCell's Terms and Conditions of Service, which can be found at http://www.wicell.org/privacyandterms.

Short Tandem Repeat Analysis*

School of Medicine and Public Health UNIVERSITY OF WISCONSIN-MADISON

Department of Pathology and Laboratory Medicine IP Laboratory (Molecular) http://www.pathology.wisc.edu/research/trip

Samples Report: 11104-STR 27.2 ng/μL (A260/280=1.89) ~2 million cells Sample Name on Tube: 11104-STR DNA Extracted by: TRIP Lab



Sample Date: 02/27/15 Receive Date: 02/27/15 Assay Date: 03/03/15 File Name: 150318 test Report Date: 03/19/15

STR Locus	STR Genotype Repeat #	11104-STR
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
TPOX	6-13	information has been redacted to
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
D16S539	5, 8-15	 WiCell's Technical Support.
D7S820	6-14	<u>Support.</u>
D13S317	7-15	
D5S818	7-16	1
Penta E	5-24	1
D18S51	8-10, 10.2, 11-13, 13.2, 14-27	1
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	

Comments: Based on the 11104-STR cells submitted by WiCell QA dated and received on 02/27/15, this sample (Label on Tube: 11104-STR) defines the STR profile of the human stem cell line WC007i-FX13-2 comprising 25 allelic polymorphisms across the 15 STR loci analyzed. No STR polymorphisms other than those corresponding to the human WC007i-FX13-2 stem cell line were detected however, allelic imbalance (denoted by ** in table above) was observed at the TH01 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 11104-STR sample submitted corresponds to the WC007i-FX13-2 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 ~2-5%.

3-19-15
Date

TRIP Laboratory, Molecular

Molecular Diagnostics Laboratory

Remember to acknowledge TRIP in your publications, posters & presentations. For details, visit: http://www.pathology.wisc.edu/research/trip/acknowledging

* 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.

Sterility	Report
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Making life-saving products possible

WiCell Research Institute, WiCell Quality Assurance	Inc.	BIOTEST SAMPLE #	15011040		
Wicell adding Associatice		VALIDATION #	NG		
		TEST PURPOSE	NG		
PRODUCT	WC007i-FX13-2-WB16523 11109 WC006i-FX11-9U-WB16522 11110 WC008i-C603-4-WB16524 11111 WC005i-FX11-7-WB16506 11112 WC-3801-2-WB16438 11113 UWWC1-DS2U-WB16352 11114 WA01-WB16217 11115 WIC03i-02-11E-WB15892 11116 IISH8i-GM07125-WB15718 11117 WC009i-FX08-01-WB16840 11118				
PRODUCT LOT	NA				
STERILE LOT	NA	BI LOT	NA		
STERILIZATION LOT	NA	BI EXPIRATION DATE	NA		
STERILIZATION DATE	NA	DATE RECEIVED 2015-01-22			
STERILIZATION METHOD	NA	TEST INITIATED	2015-01-23		
SAMPLING BLDG / ROOM	NA	TEST COMPLETED	2015-02-06		
REFERENCE	Processed according to LAB-003:	Sterility Test Procedure			
	Ten (10) products were each divid were then cultured at 20-25 C and minimum of 14 days.				
	USP BI Manufacturers Specifications Other				
RESULTS Sterile	# POSITIVES # TESTED 0 10	POSITIVE CONTF NA	OL NEGATIVE CONTROL 2 Negatives		
COMMENTS NA					
REVIEWED BY		DATE (XOFEB15		
Specific test results may r	not be indicative of the characteristics of any other samples fro	m the same lot or similar lots. Liability is l	mited to the costs of the tests.		

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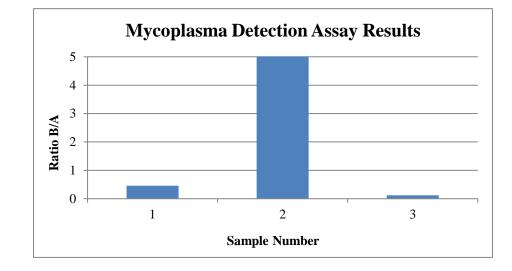
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Mycoplasma Detection Assay Report Testing Performed by WiCell

Testing Performed by WiCell Lot Release Testing 01-16-2015 FORM SOP-QU-004.01 Version C Edition 01 Reported by: SS Reviewed by: JB Berthold Monolight 539

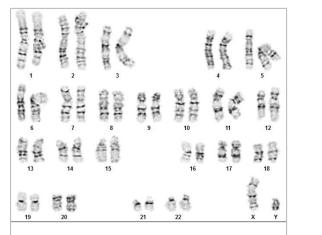
		Read	ling A	Α	Read	ling B		Ratio		
#	Sample Name	RLU1	RLU2	Ave	RLU1	RLU2	B Ave	B/A	Result	Comments/Suggestions
1	WC007i-FX13-2-WB16523 11104	155	156	155.5	72	71	71.5	0.46	Negative	
2	Positive (+) Control	192	193	192.5	12981	12930	12955.5	67.30	Positive	
3	Negative (-) Control	342	352	347	44	39	41.5	0.12	Negative	





Cell Line Gender: Male

Date Reported: Tuesday, April 07, 2015 Cell Line: WC007i-FX13-2-WB16523 11104 Passage#: 18 Date of Sample: 2/2/2015 Specimen: hESC Results: 46,XY



Reason for Testing: Lot release testing
Investigator: , CDM
Cell: 26
Slide: 2
Slide Type: Karyotype
Total Counted: 20
Total Analyzed: 8
Total Karyotyped: 4

Band Resolution: 425 - 450

Interpretation:

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

Completed by: Reviewed and Interpreted by: A signed copy of this report is ava		(ASCP) , PhD, FACMG uest.	
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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