

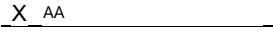


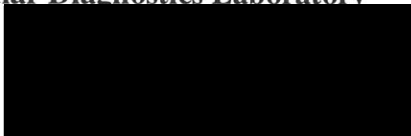
Product Information

Product Name	IISH3i-CB6
Lot Number	WB0269
Parent Material	IISH3i-CB6-DB0005
Depositor	University of Wisconsin – Laboratory of Dr. Igor Slukvin
Banked by	WiCell
Thaw Recommendation	Thaw 1 vial into 4 wells of a 6 well plate.
Culture Platform	Feeder Independent
	Medium: mTeSR1
	Matrix: Matrigel
Protocol	WiCell Feeder Independent Protocol
Passage Number	p15 These cells were cultured for 14 passages prior to freeze, 2 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 Vialied	29-October-2013
Vial Label	IISH3i-CB6 WB0269 p15 29OCT2013
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 STR profile of deposited cell line	Pass
Sterility	Biotest Laboratories	ST/07	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
11-February-2014	<div style="text-align: right; font-size: small;">7/14/2020</div>  AA Quality Assurance Signed by: Arntz, Andy



Short Tandem Repeat Analysis*

Sample Report: 10905-STR

Label on Tube: 10905-STR

Sample Date: 11/20/13

Requestor: WiCell Research Institute

Lab Received 11/20/13

Test Date: 11/27/13

File Name: 131127 BLB

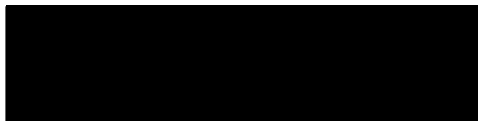
Report Date: 11/29/13

Sample Name: (label on tube) 10905-STR

Description: WI Cell Research Institute provided genomic DNA
245.2 ug/mL 260/280=1.88

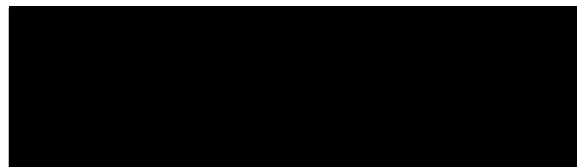
Locus	Repeat #	STR Genotype
D16S539	5, 8-15	Identifying information has been redacted to protect donor confidentiality. If more information is required, please, contact WiCell's Technical Support .
D7S820	6-14	
D13S317	7-15	
D5S818	7-15	
CSF1PO	6-15	
TPOX	6-13	
Amelogenin	NA	
TH01	5-11	
vWA	11, 13-21	

Comments: Based on the 10905-STR DNA submitted by WI Cell dated 11/20/13 and received on 11/20/13, this sample (Label on Tube: 10905-STR) exactly matches the STR profile of the human stem cell line IISH3i-CB6 comprising 13 allelic polymorphisms across the 8 STR loci analyzed. No STR polymorphisms other than those corresponding to the human IISH3i-CB6 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 10905-STR DNA sample submitted corresponds to the IISH3i-CB6 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%.


Date

12/2/13

Molecular Diagnostics Laboratory


Date

11/29/13

Date

Molecular Diagnostics Laboratory

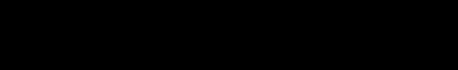
* Testing to assess engraftment following bone marrow transplantation was accomplished by analysis of human genetic polymorphisms at STR loci. This methodology has not yet been approved by the FDA and is for investigational use only.

Sterility Report

Biotest Laboratories, Inc.

Making life-saving products possible

WiCell Research Institute, Inc.
WiCell Quality Assurance



BIOTEST SAMPLE # 14011118

VALIDATION # NG

TEST PURPOSE NG

PRODUCT Please see packing list under product name.

PRODUCT LOT NA

STERILE LOT NA

BI LOT NA

STERILIZATION LOT NA

BI EXPIRATION DATE NA

STERILIZATION DATE NA

DATE RECEIVED 2014-01-24

STERILIZATION METHOD NA

TEST INITIATED 2014-01-27

SAMPLING BLDG / ROOM NA

TEST COMPLETED 2014-02-10

REFERENCE Processed according to LAB-003: Sterility Test Procedure

Ten (10) products were each divided between 40 mL TSB and 40 mL FTG. The samples were then cultured at 20-25 C and 30-35 C respectively and were monitored for a minimum of 14 days.

- USP
- BI Manufacturers Specifications
- Other

RESULTS	# POSITIVES	# TESTED	POSITIVE CONTROL	NEGATIVE CONTROL
Sterile	0	10	NA	2 Negatives

COMMENTS NA



REVIEWED BY

DATE

10 FEB 14

Specific test results may not be indicative of the characteristics of any other samples from the same lot or similar lots. Liability is limited to the costs of the tests.



A subsidiary of STERIS Corporation



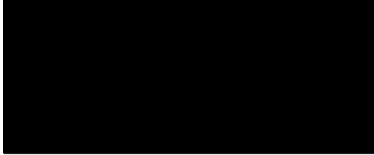


WiCell Research Institute

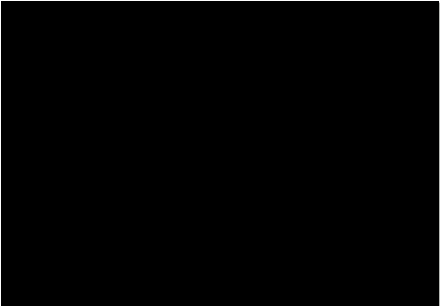
Packing Slip



Sent to:
Sterility Testing Services
Biotest Labs, Sterility Testing Services



Date:
22Jan14

Contents - Number of Vials	Condition
IISH3i-CB6-WB0269 #10924 	-80

1401118
10P 21JAN14

Mycoplasma Report

Testing Performed by WiCell

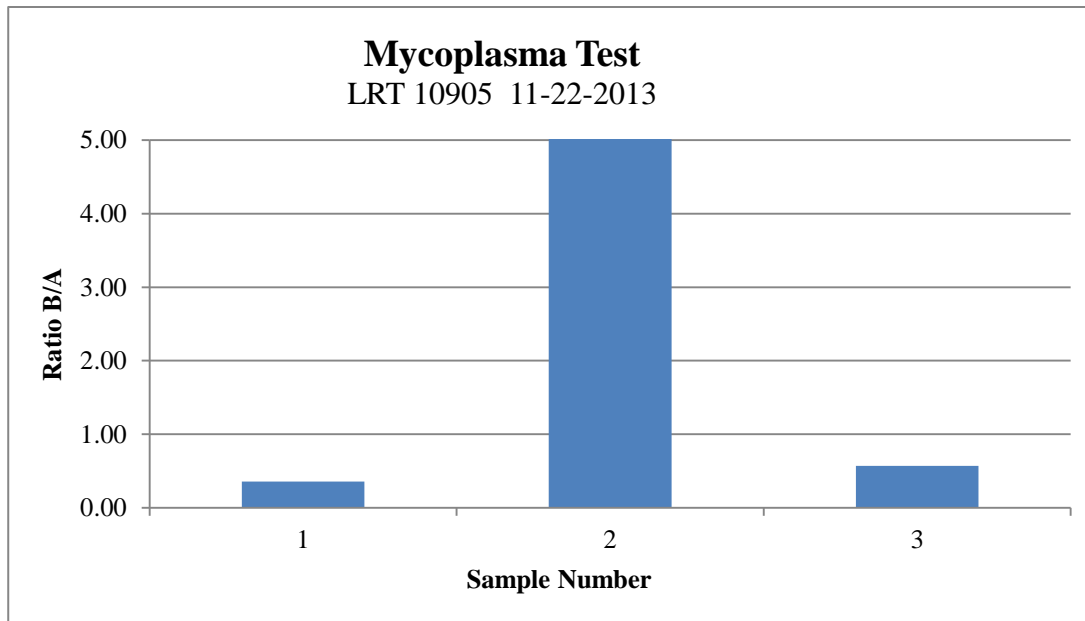
LRT# 10905 11-22-2013

Assay performed and reported by: MWS

Reviewed by: JB

Equipment: Berthold 1150

Sample Number and ID	Reading A		A Average	Reading B		B Average	Ratio B/A	Mycoplasma Results	Comments/Suggestions
	A1	A2		B1	B2				
1 WB0269 #10905	231	232	231.5	88	78	83	0.36	Negative	
2 Positive (+) Control	246	247	246.5	21852	21876	21864	88.70	Positive	
3 Negative (-) Control	517	514	515.5	294	295	294.5	0.57	Negative	



Date Reported: Tuesday, November 12, 2013

Cell Line: IISH3i-CB6-WB0269 10905

Passage#: 15

Date of Sample: 11/4/2013

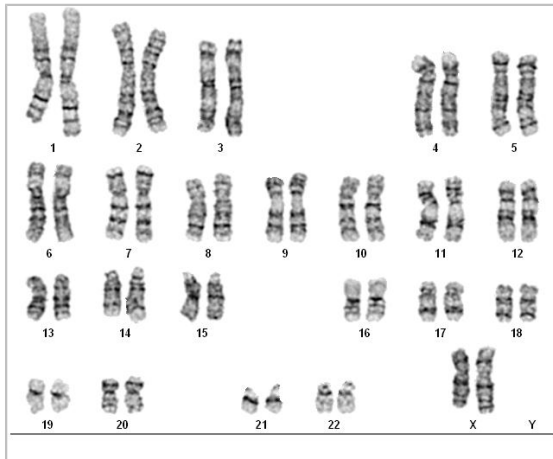
Specimen: iPSC

Results: 46,XX

Cell Line Gender: Female

Reason for Testing: Lot release testing

Investigator: [REDACTED] WiCell CDM



Cell: 21

Slide: 2

Slide Type: Karyotype

Total Counted: 20

Total Analyzed: 8

Total Karyotyped: 4

Band Resolution: 400 - 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

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.