



## Thaw and Culture Details

Cell Line Name	<b>UCSD234i-SAD2-3</b>
WiCell Lot Number	<b>DB26813</b>
Provider	University of California, San Diego – Laboratory of Dr. Lawrence Goldstein
Banked By	University of California, San Diego – Laboratory of Dr. Lawrence Goldstein
Thaw and Culture Recommendations	WiCell recommends thawing 1 vial into 5 wells of a 6 well plate. WiCell recommends thawing using ROCK Inhibitor for best results.
Culture Platform	Feeder Dependent
	Medium: hESC Medium (KOSR)
	Matrix: MEF
Protocol	WiCell Feeder Dependent Protocol
Passage Number	p23 These cells were cultured for 22 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 Viald	27-July-2015
Vial Label	iPS SAD2.3 p23 7/27/15 ch thaw in 6 well
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	Recoverable attachment after passage	Fail
Identity by STR	UW Translational Research Initiatives in Pathology Laboratory	PowerPlex 16 HS System by Promega	Defines profile	Pass
Sterility	Biotest Laboratories	ST/07	Negative	Pass
Mycoplasma	WiCell	SOP-QU-004	Negative	Pass
Karyotype by G-banding	WiCell	SOP-CH-003	Report karyotype	Pass



## Testing Reported by Provider

For more information, publication and dbGaP links, where available, are provided on the cell line specific web page on the WiCell website.

Test Description	Method	Result
Genetic Analysis	G-Band Karyotype	Maintained euploid karyotype
Pluripotency	FACS	Expressed the pluripotency-associated proteins NANOG and TRA1-81. See the publication for Mean % TRA1-81.
Teratoma	Injected into nude rats	Differentiated into cells of ectodermal, mesodermal, and endodermal lineages in vitro.

Approval Date	Quality Assurance Approval
30-June-2016	<p style="text-align: right;">10/30/2017</p> <p>X RK _____ RK Quality Assurance Signed by Kremers, Erik</p>



# Short Tandem Repeat Analysis



Department of Pathology and Laboratory Medicine  
TRIP Laboratory (Molecular)

WiCell®  
info@wicell.org  
(888) 204-1782

<http://www.pathology.wisc.edu/research/trip>

**UCSD239i-APP2-1-DB26829**

**Sample Report:**

11971-STR

**Sample Name on Tube:** 11971-STR

65.4 ng/μL, (A260/280=1.71)

**Sample Type:** Cells

**Cell Count:** ~2 million cells

**Requestor:**

WiCell Research Institute

Quality Department

**Sample Date:** N/A

**Receive Date:** 12/05/16

**Assay Date:** 12/06/16

**File Name:** STR 161207 wmr

**Report Date:** 12/12/16

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 <a href="#">WiCell's Technical Support</a> .
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 11971-STR cells submitted by WiCell QA dated and received on 12/05/16, this sample (Label on Tube: 11971-STR) defines the STR profile of the human stem cell line UCSD234i-SAD2-3 comprising 27 allelic polymorphisms across the 15 STR loci analyzed.

**Interpretation:** No STR polymorphisms other than those corresponding to the human UCSD234i-SAD2-3 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 11971-STR sample submitted corresponds to the UCSD234i-SAD2-3 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 12/12/16

**X** *WMR* Digitally Signed on 12/12/16

TRIP Laboratory, Molecular

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>).

# Sterility Report

Biotest Laboratories, Inc.

*Making life-saving products possible*

WiCell Research Institute, Inc.  
WiCell Quality Assurance



BIOTEST SAMPLE # 16111519

VALIDATION # NG

TEST PURPOSE NG

PRODUCT MIN08i-33114.B-WB49930 11979, MIN09i-33114.C-WB49931 11980, UCSD034i-4-3-WB51215 11981, UCSD068i-19-2-WB50123 11982, UCSD195i-29-2-WB50124 11983, UCSD230i-SAD1-2-DB26801 11984, UCSD234i-SAD2-3-DB26813 11985, UCSD239i-APP2-1-DB26829 11986, UCSD240i-APP2-2-DB26832 11987, UCSD241i-APP2-3-DB26835 11988

PRODUCT LOT NA

STERILE LOT NA

STERILIZATION LOT NA

STERILIZATION DATE NA

STERILIZATION METHOD NA

SAMPLING BLDG / ROOM NA

BI LOT NA

BI EXPIRATION DATE NA

DATE RECEIVED 2016-11-22

TEST INITIATED 2016-11-23

TEST COMPLETED 2016-12-07

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

COMMENTS NA

REVIEWED BY

DATE 08 DEC 16

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. The uncertainty of measurement associated with the measurement result reported in this certificate is available from the organization upon request.

Biotest Laboratories ■ 9303 West Broadway Ave. ■ Brooklyn Park, MN 55445 ■ USA ■ (763) 315-1200

A subsidiary of STERIS Corporation



# Mycoplasma Detection Assay Report

Testing Performed by WiCell

Lot Release Test

November 21st, 2016

FORM SOP-QU-004.01

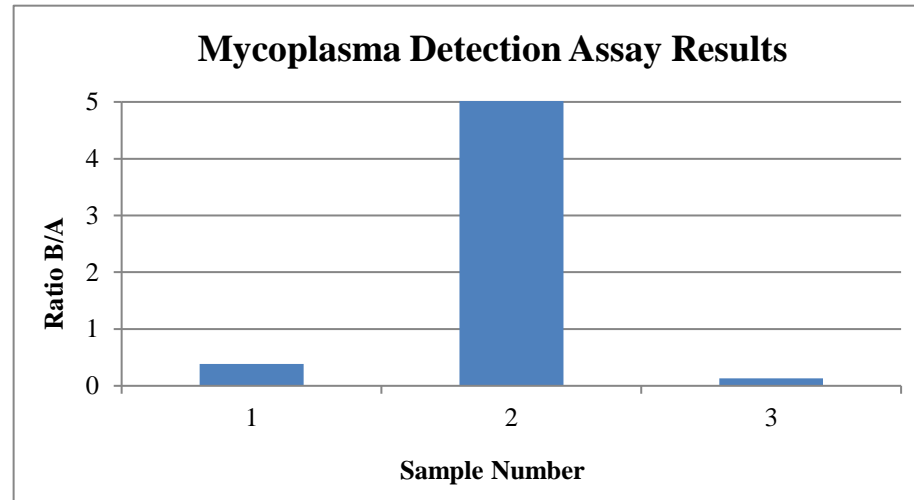
Version F Edition 01

Reported by: OG

Reviewed by: JB

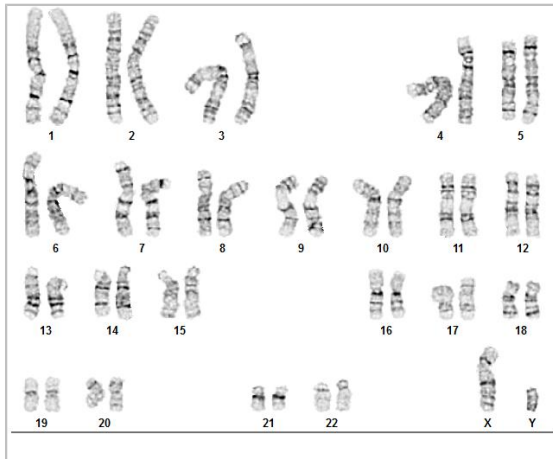
Berthold Flash n' Glo 539

#	Sample Name	Reading A			Reading B			Ratio B/A	Result	Comments/Suggestions
		RLU1	RLU2	Ave	RLU1	RLU2	Ave			
1	UCSD234i-SAD2-3-DB26813 11971	128	127	127.5	49	49	49	0.38	Negative	
2	Positive (+) Control	107	107	107	5821	5797	5809	54.29	Positive	
3	Negative (-) Control	206	210	208	26	28	27	0.13	Negative	



**Date Reported:** Tuesday, December 06, 2016  
**Cell Line:** UCSD234i-SAD2-3-DB26813 11971  
**Passage#:** 24  
**Date of Sample:** 11/30/2016  
**Specimen:** iPSC  
**Results:** 46,XY

**Cell Line Gender:** Male  
**Reason for Testing:** lot release testing  
**Investigator:** [REDACTED], WiCell CDM



**Cell:** 3  
**Slide:** 1  
**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  
**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.*

*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](http://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.*