



## Thaw and Culture Details

Cell Line Name	<b>RUES2</b>
WiCell Lot Number	<b>WB33127</b>
Parent Material	RUES2-DB17752
Provider	WiCell
Banked by	WiCell
Thaw and Culture Recommendation	Thaw 1 vial into 2 wells of a 6 well plate.
Culture Platform	Feeder Independent
	Medium: mTeSR™1
	Matrix: Matrigel®
Protocol	WiCell Feeder Independent mTeSR™1 Protocol
Passage Number	p27 These cells were cultured for 26 passages prior to freeze. 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	14-April-2016
Vial Label	RUES2 p27 WB33127
Biosafety and Use Information	This cell line is of human origin. 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 Translational Research Initiatives in Pathology Laboratory	PowerPlex 16 HS System by Promega	Consistent with known profile	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
25-May-2016	<p style="text-align: right;">5/25/2016</p> <p>X AMK</p> <hr/> <p>AMK Quality Assurance Signed by: [REDACTED]</p>

# Short Tandem Repeat Analysis

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

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

**Sample Report:**

11630-STR

**Sample Name on Tube:** RUES2-WB33127 STR Pellet-LRT Quality Department

68.4 ng/μL, (A260/280=1.76)

**Sample Type:** Cells

**Cell Count:** ~2 million cells

**Requestor:**

WiCell Research Institute

**Sample Date:** 04/25/16 LK

**Receive Date:** 04/29/16

**Assay Date:** 05/03/16

**File Name:** STR 160504 wmr

**Report Date:** 05/06/16

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	22,25
TPOX	6-13	8,8
D8S1179	7-18	10,13
vWA	10-22	16,16
Amelogenin	X,Y	X,X
Penta_D	2.2, 3.2, 5, 7-17	9,12
CSF1PO	6-15	11,11
D16S539	5, 8-15	12,15
D7S820	6-14	12,13
D13S317	7-15	11,11
D5S818	7-16	11,12
Penta_E	5-24	13,14
D18S51	8-10, 10.2, 11-13, 13.2, 14-27	16,18
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	29,29
TH01	4-9,9.3,10-11,13.3	7,9,3
D3S1358	12-20	14,15

**Results:** Based on the 11630-STR cells submitted by WiCell QA dated and received on 04/29/16, this sample (Label on Tube: RUES2-WB33127 STR Pellet-LRT) exactly matches the STR profile of the human stem cell line RUES2 comprising 25 allelic polymorphisms across the 15 STR loci analyzed.

**Interpretation:** No STR polymorphisms other than those corresponding to the human RUES2 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 11630-STR sample submitted corresponds to the RUES2 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<sub>RMB</sub>

Digitally Signed on 05/10/16

TRIP Laboratory, Molecular

X<sub>WMR</sub>

Digitally Signed on 05/10/16

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 # 16042125

VALIDATION # NG

TEST PURPOSE NG

PRODUCT MIN23i-33808.D-WB32987 11611, RUES2-WB33127 11633, UCSD006i-21-DB25387 11614, UCSD007i-21-2-DB25390 11615, UCSD008i-44-1-DB26721 11616, UCSD009i-5-2-DB25340 11617, UCSD010i-5-3-DB25337 11618, UCSD011i-5-4-DB25348 11619, WA07-WB32662 11620, UCSD012i-5-5-DB25393 11621

PRODUCT LOT NA

STERILE LOT NA

BI LOT NA

STERILIZATION LOT NA

BI EXPIRATION DATE NA

STERILIZATION DATE NA

DATE RECEIVED 2016-04-28

STERILIZATION METHOD NA

TEST INITIATED 2016-04-28

SAMPLING BLDG / ROOM NA

TEST COMPLETED 2016-05-12

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

12MAY16

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.

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 Testing

April 21st, 2016

FORM SOP-QU-004.01

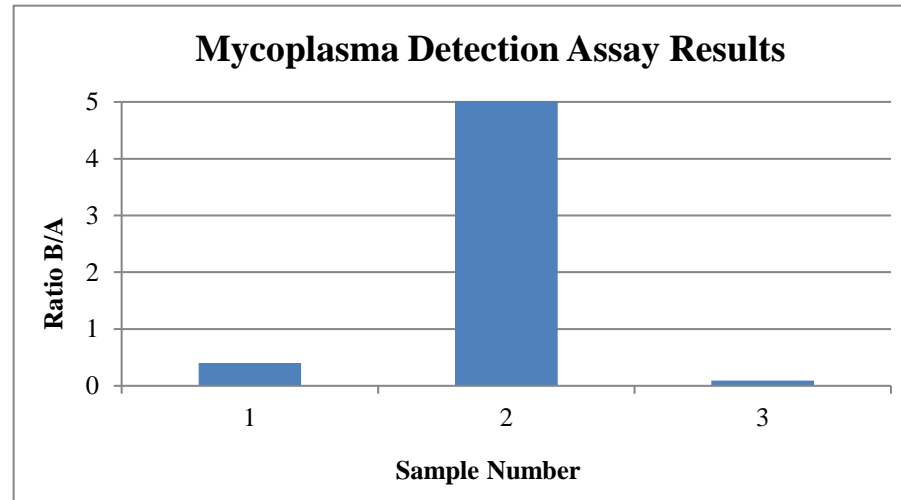
Version E Edition 01

Reported by: SS

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	RUES2-WB33127 11630	88	88	88	34	37	35.5	0.40	Negative	
2	Positive (+) Control	137	127	132	8898	8747	8823	66.84	Positive	
3	Negative (-) Control	244	228	236	21	22	21.5	0.09	Negative	



**Date Reported:** Friday, April 29, 2016

**Cell Line:** RUES2-WB33127 11630

**Passage#:** 28

**Date of Sample:** 4/27/2016

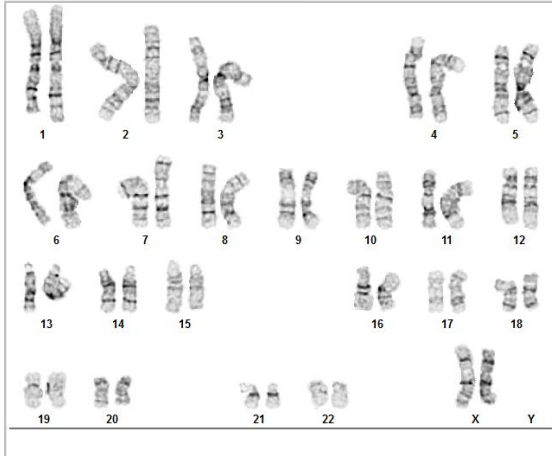
**Specimen:** hESC

**Results:** 46,XX

**Cell Line Gender:** Female

**Reason for Testing:** Lot release testing

**Investigator:** [REDACTED], WiCell CDM



**Cell:** 45

**Slide:** 1

**Slide Type:** Karyotype

**Total Counted:** 20

**Total Analyzed:** 8

**Total Karyogrammed:** 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:** [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.*

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