



Thaw and Culture Details

Cell Line Name	PENN077i-521-1
WiCell Lot Number	DB36597
Provider	University of Pennsylvania – Dr. Daniel Rader
Banked By	Penn Institute for Regenerative Medicine iPS Core Facility
Thaw and Culture Recommendations	The Provider recommends thawing 1 vial into 2 wells of a 6 well plate. The Provider 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	p13 These cells were cultured for 13 passages prior to freeze and post colony picking. Therefore, plated cells at thaw should be labeled passage 14.
Date Vialied	09-April-2015
Vial Label	iPS-521 Sev1 P13 040915 JS
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
	<p>Results: 46,XY,dup(20)(q11.2q11.2)[3]/46,XY[17] Interpretation: This is an abnormal karyotype. There is an interstitial duplication in the long arm of chromosome 20 in three of twenty cells examined. This abnormality appears to be the recurrent acquired duplication of 20q seen in human pluripotent stem cell cultures. Confirmation of this abnormality by higher resolution (fluorescence in situ hybridization—FISH) testing is recommended. No other clonal defined abnormalities were found.</p>			
Post-Thaw Viable Cell Recovery	WiCell	SOP-CH-305	Recoverable attachment after passage	Pass
Identity by STR	UW Translational Research Initiatives in Pathology Laboratory	PowerPlex 16 HS System by Promega	Defines profile	Pass
Sterility	Steris	ST/07	Negative	Pass
Mycoplasma	WiCell	SOP-QU-004	Negative	Pass



Testing Reported by Provider

The Provider stated that some or all of the additional analyses listed below may have been performed for this cell line. For more information, publication and dbGaP links, where available, are provided on the cell line specific web page on the WiCell website.

- SNP microarray
- Flow Cytometry (Tra1-60 and SSEA-4)
- Differentiation into hepatocytes
- Infinium® Expanded Multi-Ethnic Genotyping Array (MEGA^{EX})

Approval Date	Quality Assurance Approval
24-June-2016	<p style="text-align: right;">3/8/2018</p> <p>X HEB</p> <p>HEB Quality Assurance Signed by Bruner, Haley</p>

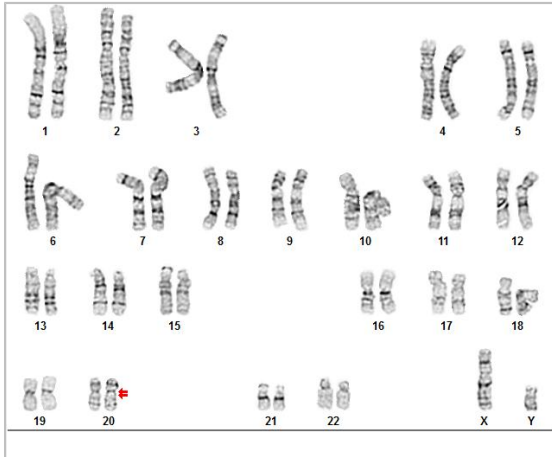
Date Reported: Friday, February 16, 2018
Cell Line: PENN077i-521-1-DB36597 13307
Passage#: 15

Cell Line Gender: Male
Reason for Testing: lot release testing

Date of Sample: 2/8/2018
Specimen: Human IPS

Investigator: [REDACTED], WiCell CDM

Results: 46,XY,dup(20)(q11.2q11.2)[3]/46,XY[17]



Cell: 47
Slide: G05
Slide Type: Karyotype

Total Counted: 20
Total Analyzed: 9
Total Karyogrammed: 5
Band Resolution: 500 - 550

Interpretation:

This is an abnormal karyotype. There is an interstitial duplication in the long arm of chromosome 20 in three of twenty cells examined. This abnormality appears to be the recurrent acquired duplication of 20q seen in human pluripotent stem cell cultures. Confirmation of this abnormality by higher resolution (fluorescence in situ hybridization—FISH) testing is recommended. No other clonal defined abnormalities were found.

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. 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.

Sample Report:

13307-STR

Sample Name on Tube: 13307-STR

24.8 ng/μL, (A260/280=6.86)

Sample Type: Cells**Cell Count:** ~2 million cells**Requestor:**

WiCell Research Institute

Quality Department

Sample Date: N/A**Receive Date:** 02/12/18**Assay Date:** 02/13/18**File Name:** STR 180214 wmr**Report Date:** 02/16/18

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 WiCell's Technical Support .
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 13307-STR cells submitted by WiCell QA dated and received on 02/12/18, this sample (Label on Tube: 13307-STR) defines the STR profile of the human stem cell line PENN077i-521-1 comprising 25 allelic polymorphisms across the 15 STR loci analyzed.

Interpretation: No STR polymorphisms other than those corresponding to the human PENN077i-521-1 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 13307-STR sample submitted corresponds to the PENN077i-521-1 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%.



Digitally Signed on 02/16/18

[Redacted], BA
TRIP Laboratory, Molecular

Digitally Signed on 02/16/18

[Redacted], PhD, Director / Co-Director
UWHC Molecular Diagnostics Laboratory / UWSMPH TRIP Laboratory

Native Product Sterility Report



WiCell
504 S. Rosa Rd., Rm 101
Madison, WI 53719

SAMPLE #: 18020291
DATE RECEIVED: 06-Feb-18
TEST INITIATED: 07-Feb-18
TEST COMPLETED: 21-Feb-18

SAMPLE NAME / DESCRIPTION: CREM015i-SS16-1 WB66723 13311, CREM016i-SS18-1 WB66712 13312, CREM019i-SS25-1 WB66728 13313, CREM021i-SS29-1 WB66729 13314, H9-SOX2-GFP WB66727 13315, WCO05i-FX11-7 WB20338 13316, WCO09i-FX08-01 WB17924 13317, PENN015i-668-5 DB36410 13318, PENN029i-752-3 DB36392 13319, PENN009i-57-52 DB35131 13320, PENN034i-322-1 DB34729 13321, PENN077i-521-1 DB36597 13322, PENN125i-233-4 DB35073 13323, PENN136i-262-1 DB35081 13324, UCSD048i-52-1 WB66722 13325, UCSD208i-111-1 WB66730 13326, UCSD133i-79-1 WB61228 13327, UCSD152i-11-3 WB61663 13328, UCSD168i-22-1 WB61577 13329, UCSD170i-22-3 WB60774 13330, UCSD175i-18-3 WB60837 13331, UCSD066i-67-1 WB60392 13332, UCSD099i-35-2 WB65030 13334, UCSD117i-72-1 WB60039 13335, UCSD119i-38-2 WB60256 13336, UCSD125i-7-2 WB59219 13337, UCSD128i-7-5 WB60297 13338, UCSD151i-11-2 WB59218 13339, UCSD158i-12-4 WB60020 13340, UCSD088i-6-5 WB53942 13341, UCSD147i-10-2 WB54174 13342, UCSD167i-99-1 WB54407 13343, UCSD198i-23-1 WB54163 13344, UCSD098i-35-1 WB55340 13345, UCSD100i-36-1 WB55460 13346, UCSD129i-75-1 WB54795 13347, UCSD136i-82-1 WB54902 13348, UCSD139i-85-1 WB55345 13349, UCSD173i-18-1 WB54899 13350, UCSD187i-104-1 WB55339 13351, UCSD206i-31-1 WB54794 13352, UCSD217i-115-1 WB55069 13353, UCSD218i-116-1 WB55459 13354, UCSD094i-25-1 WB55177 13355, UCSD095i-25-2 WB57580 13356, UCSD097i-34-2 WB57100 13357, UCSD113i-68-1 WB57056 13358, UCSD115i-70-1 WB55081 13359, UCSD184i-8-1 WB55338 13360, UCSD188i-105-1 WB55082 13361

UNIQUE IDENTIFIER:

NA

PRODUCT REGISTRATION:

Other: Human iPS cells

TEST RESULTS:

# Tested	# Positives (Growth)	- Control
50	0	3 Negative

TEST SUMMARY:

# Samples	Media Type	Volume (mL)	Incubation Temperature (° C)	Incubation Duration (Days)
50	TSB	40	20-25	14
50	FTG	40	30-35	14

REFERENCE:

Processed according to LAB-003: Sterility Test Procedure

METHOD VALIDATION / PD #:

000053


TEST METHODOLOGY:

USP - Direct Transfer

Native Product Sterility Report



COMMENTS: Sample # 18020291

REVIEWED BY 

DATE 22 FEB 18

Specific test results may not be indicative of the characteristics of any other samples from the same lot or similar lots. This test report shall not be reproduced, except in full, without prior written approval. Liability is limited to the costs of the tests.



Mycoplasma Detection Assay Report

Testing Performed by WiCell

Lot Release Testing

February 1, 2018

FORM SOP-QU-004.01

Version G Edition 02

Reported by: AP

Reviewed by: JB

BD Monolight 180

#	Sample Name	Reading A			Reading B			Ratio B/A	Result	Comments/Suggestions
		RLU1	RLU2	Ave	RLU1	RLU2	Ave			
1	PENN077i-521-1-DB36597 13307	344	342	343	130	131	130.5	0.38	Negative	
2	Positive (+) Control	428	443	435.5	14287	14372	14330	32.90	Positive	
3	Negative (-) Control	650	672	661	61	56	58.5	0.09	Negative	

