Thaw and Culture Details

Cell Line Name	**HVRDi001-A**
WiCell Lot Number	**WB66391**
Provider	Brigham & Women's Hospital – Dr. Tracy Young-Pearse
Banked By	Brigham & Women's Hospital – Dr. Tracy Young-Pearse
Thaw and Culture Recommendations	WiCell recommends thawing 1 vial into 1 well of a 6 well plate. WiCell recommends thawing using ROCK Inhibitor for best results.
Culture Platform	Feeder Dependent
	Medium: Stem Cell Culture Medium
	Matrix: MEF
Protocol	WiCell Feeder Dependent Protocol
Passage Number	p29 These cells were cultured for 28 passages after colony picking. WiCell adds +1 to the passage number to best represent the overall passage number of the cells at thaw.
Date Vialed	01-July-2017
Vial Label	HVRDi001-A p29 WB66391
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	Pass
	Results: 46,XY,t(1;12)(q44;q22)[19] ***Nonclonal findings: 47,XY,t(1;12)(q44;q22),+5*** ***Interpretation: This is an abnormal karyotype. There is an apparently balanced translocation between the long arms of chromosomes 1 and 12 in twenty of twenty cells examined. No other clonal abnormalities were found.*** ***There is also one nonclonal change seen in the abnormal clone, as described above. This is not a recurrent acquired abnormality in human pluripotent stem cell cultures. Nonclonal findings may result from technical artifact, but may be due to a developing additional clonal abnormality or to low-level mosaicism.***			
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	Defines STR profile of deposited cell line	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.

- Expression of MAP2, Tau and TuJ1, markers of upper (Cux1) and lower (Tbr1) layer cortical neurons and synaptic markers synaptophysin (SYP), PSD95 and VGLUT1 by immunostaining
- Embryoid body formation and in vitro differentiation to ectodermal, mesodermal, and endodermal lineage

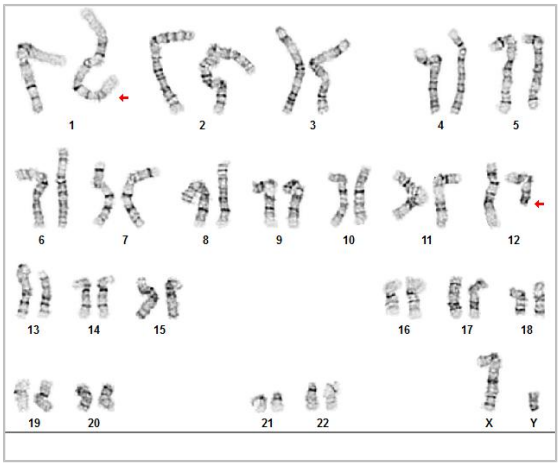
Approval Date	Quality Assurance Approval
25-September-2017	9/28/2021 X HEB HEB Quality Assurance Signed by: Bruner, Haley

Chromosome Analysis Report: 067688

Date Reported: Monday, September 11, 2017
Cell Line: HVRDi001-A-WB66391 12770
Passage#: 31
Date of Sample: 8/27/2017
Specimen: Human IPS
Results: 46,XY,t(1;12)(q44;q22)[19]

Cell Line Gender: Male
Reason for Testing: lot release testing
Investigator: [redacted]

Nonclonal findings: 47,XY,t(1;12)(q44;q22),+5



Cell: 28
Slide: G01
Slide Type: Karyotype

Total Counted: 20
Total Analyzed: 8
Total Karyogrammed: 4
Band Resolution: 425 - 550

Interpretation:

This is an abnormal karyotype. There is an apparently balanced translocation between the long arms of chromosomes 1 and 12 in twenty of twenty cells examined. No other clonal abnormalities were found.

There is also one nonclonal change seen in the abnormal clone, as described above. This is not a recurrent acquired abnormality in human pluripotent stem cell cultures. Nonclonal findings may result from technical artifact, but may be due to a developing additional clonal abnormality or to low-level mosaicism.

Completed by: [redacted]
Reviewed and Interpreted by:

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".

Short Tandem Repeat Analysis

School of Medicine and Public Health
UNIVERSITY OF WISCONSIN-MADISON
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:
12770-STR
Sample Name on Tube: 12770-STR
45.7 ng/µL, (A260/280=2.15)
Sample Type: Cells
Cell Count: ~2 million cells

Requestor:
WiCell Research Institute
Quality Department

Sample Date: N/A
Receive Date: 09/05/17
Assay Date: 09/12/17
File Name: 170913 STR WMR
Report Date: 09/15/17

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 12770-STR cells submitted by WiCell QA dated and received on 09/05/17, this sample (Label on Tube: 12770-STR) defines the STR profile of the human stem cell line HVRDi001-A comprising 28 allelic polymorphisms across the 15 STR loci analyzed.**

Interpretation: **No STR polymorphisms other than those corresponding to the human HVRDi001-A 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 12770-STR sample submitted corresponds to the HVRDi001-A 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 09/15/17**

[redacted]
TRIP Laboratory, Molecular

X *WMR* **Digitally Signed on 09/15/17**

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

Native Product Sterility Report

STERIS

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

SAMPLE #: 17071725
DATE RECEIVED: 27-Jul-17
TEST INITIATED: 31-Jul-17
TEST COMPLETED: 14-Aug-17

SAMPLE NAME / DESCRIPTION:
HVRDi001-A-WB66391 12659
JHU024i-WB66445 12660
WA09-WB66444 12661
WA09-WB66446 12662
UCSD005i-43-1-WB62267 12663
UCSD008i-44-1-WB66286 12664
UCSD036i-4-5-WB65173 12665
UCSD233i-SAD-2-DB26810 12666
UCSD235i-SAD2-4-DB26816 12667
iPS(IMR90)-2-WB66447 12668

UNIQUE IDENTIFIER: NA

PRODUCT REGISTRATION: Human iPS cells

TEST RESULTS:

# Tested	# Positives (Growth)	- Control
10	0	2 Negatives

TEST SUMMARY:

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

REFERENCE: Processed according to LAB-003: Sterility Test Procedure

METHOD VALIDATION / PD #: 000053

TEST METHODOLOGY: USP - Direct Transfer

COMMENTS: NA

REVIEWED BY _____ DATE 15 Aug 17

Mycoplasma Detection Assay Report

Testing Performed by WiCell

Lot Release Testing

July 12, 2017

FORM SOP-QU-004.01
Version F Edition 02
Reported by: KR
Reviewed by: DF 12Jul17
BD Monolight 180

#	Sample Name	Reading A		A Ave	Reading B		B Ave	Ratio B/A	Result	Comments/Suggestions
		RLU1	RLU2		RLU1	RLU2				
1	HVRDi001-A-WB66391 12606	311	320	315.5	142	147	144.5	0.46	Negative	
2	Positive (+) Control	349	363	356	31431	31358	31395	88.19	Positive	
3	Negative (-) Control	543	529	536	53	54	53.5	0.10	Negative