



Cell Line: WA01
Lot: 11

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This material predates when WiCell produced a certificate of analysis for each lot. Therefore, a certificate of analysis is not available. The following pages are the reports for the testing completed for this lot.

If you have any questions please contact WiCell's technical support staff via our website side at www.wicell.org and we will be happy to assist you.

Thank you,

WiCell

Short Tandem Repeat Analysis*

Sample Report: H1p29 lot 11

UW HLA#: 55804

Sample Date: 02/23/07

Requestor: WICell Research Institute

Received Date: 02/27/07

Test Date: 02/28/07

File Name: 070228

Report Date: 03/02/07

**Sample Name: (label on tube) H1 p29 lot11
02/23/07 DF****Description: not indicated**

Locus	Repeat #	STR Genotype
D16S539	5, 8-15	9,13
D7S820	6-14	8,12
D13S317	7-15	8,11
D5S818	7-15	9,11
CSF1PO	6-15	12,13
TPOX	6-13	8,11
Amelogenin	NA	X,Y
TH01	5-11	9.3,9.3
vWA	11, 13-21	15,17

Comments: The concentration of purified DNA isolated from the H1p29 Lot11 human embryonic stem cell sample dated 02/23/07 and received 02/27/07 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.

David F. Lorentzen, Manager Date
HLA/Molecular Diagnostics Laboratory

William M. Rehrauer, PhD, Director Date
HLA/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.

File: Final STR Report



APPENDIX I

Document #: DCF3008A
Edition #: 06
Effective date: 9/17/2003
Title: DNA FLUOROCHROME ASSAY RESULTS

DNA-FLUOROCHROME ASSAY RESULTS

Procedures 3008, 3009, 3011

Sample ID # 47554 M-250 Date Rec'd: 02/22/2007 P.O. # RP1197

Indicator Cells Inoculated: Date/Initials: 2/22/07 /

Fixation: Date/Initials: 2/26/07 /

Staining: Date/Initials: 2/26/07 /

TEST/CONTROL ARTICLE:

H1 p29

LOT# 11

Distribution
WiCell Research Institute

Phone:

Fax #:

DNA FLUOROCHROME ASSAY RESULTS:

NEGATIVE: A reaction with staining limited to the nuclear region, which indicates no mycoplasmal contamination.

POSITIVE: A significant amount of extranuclear staining which strongly suggests mycoplasmal contamination.

INCONCLUSIVE:

A significant amount of extranuclear staining consistent with low - level mycoplasmal contamination or nuclear degeneration.

A significant amount of extranuclear staining consistent with bacterial, fungal or other microbial contaminant or viral CPE. Morphology not consistent for mycoplasmal contamination.

COMMENTS:

Date: 2/26/07 Results Read by:

Date of Review: 2/26/07 Reviewed by:



BIONIQUE TESTING LABORATORIES, INC.
156 FAY BROOK DRIVE
SARANAC LAKE, NY 12983
PHONE: 518-891-2356 FAX: 518-891-5753

APPENDIX IV

Document#: DCF3013D
Edition#: 10
Effective Date: 07/15/2003
Title: M-250 FINAL REPORT SHEET

M-250 FINAL REPORT

Direct Specimen Culture
Procedure 3008, 3011, 3013

TO: Distribution
WiCell Research Institute

BTL SAMPLE ID#: 47554 P.O.#: RP1197 DATE REC'D: 02/22/2007

TEST/CONTROL ARTICLE:

H1 p29

LOT#: 11

DIRECT CULTURE SET-UP (DAY 0)

DATE: 02/22/2007

INDICATOR CELL LINE (VERO)

SEE DNA FLUOROCHROME RECORD SHEET

Table with columns: Indicator Cell Line, Day, Result (+/-), and Date. Rows include Thioglycollate Broth, Broth-Fortified Commercial (0.5 mL Sample, 6.0 mL Broth), Broth-Modified Hayflick (0.5 mL Sample, 6.0 mL Broth), and Broth-Heart Infusion (0.5 mL Sample, 6.0 mL Broth).

(See Reverse)

Document#: DCF3013D
 Edition#: 10
 Effective Date: 07/15/2003
 Title: M-250 FINAL REPORT SHEET

SAMPLE ID#:	47554	AEROBIC	MICROAEROPHILIC	DATE
AGAR PLATES-FORTIFIED COMMERCIAL	DAY 7	+ ⊖	+ ⊖	<u>03/01/2007</u>
	DAY 14	+ ⊖	+ ⊖	<u>03/08/2007</u>
	DAY 21	+ ⊖	+ ⊖	<u>03/15/2007</u>
AGAR PLATES-MODIFIED HAYFLICK	DAY 7	+ ⊖	+ ⊖	<u>03/01/2007</u>
	DAY 14	+ ⊖	+ ⊖	<u>03/08/2007</u>
	DAY 21	+ ⊖	+ ⊖	<u>03/15/2007</u>
AGAR PLATES-HEART INFUSION	DAY 7	+ ⊖	+ ⊖	<u>03/01/2007</u>
	DAY 14	+ ⊖	+ ⊖	<u>03/08/2007</u>
	DAY 21	+ ⊖	+ ⊖	<u>03/15/2007</u>
BROTH SUBCULTURES (DAY 7)		DATE: <u>03/01/2007</u>		
AGAR PLATES-FORTIFIED COMMERCIAL	DAY 7	+ ⊖	+ ⊖	<u>03/08/2007</u>
	DAY 14	+ ⊖	+ ⊖	<u>03/15/2007</u>
	DAY 21	+ ⊖	+ ⊖	<u>03/22/2007</u>
AGAR PLATES-MODIFIED HAYFLICK	DAY 7	+ ⊖	+ ⊖	<u>03/08/2007</u>
	DAY 14	+ ⊖	+ ⊖	<u>03/15/2007</u>
	DAY 21	+ ⊖	+ ⊖	<u>03/22/2007</u>
AGAR PLATES-HEART INFUSION	DAY 7	+ ⊖	+ ⊖	<u>03/08/2007</u>
	DAY 14	+ ⊖	+ ⊖	<u>03/15/2007</u>
	DAY 21	+ ⊖	+ ⊖	<u>03/22/2007</u>

RESULTS: No detectable mycoplasmal contamination

3/22/07
 Date

M-250 Procedural Summary: The objective of this test is to ascertain whether or not detectable mycoplasmas are present in an *in vitro* cell culture sample, be it a primary culture, hybridoma, master seed stock or cell line. This procedure combines an indirect DNA staining approach to detect non-cultivable mycoplasmas with a direct culture methodology utilizing three different mycoplasmal media formulations. The indirect approach involves the inoculation of the sample into a mycoplasma-free VERO (ATCC) indicator cell line and performing a DNA fluorochrome assay after 72-120 hours of incubation. The direct culture aspect of the test utilizes three different mycoplasmal media including both broth and agar formulations. The sample is inoculated into each of the 3 broth formulations and also onto duplicate plates (0.1 mL/plate) for each of the 3 agar formulations. Subculture from broth to fresh agar plates is carried out after 7 days incubation. Agar plates are incubated aerobically and microaerophilically in order to detect any colony forming units morphologically indicative of mycoplasmal contamination. Issuance of the final report with signature of the Scientific Director/Study Director signifies that the required controls were performed concurrently with the test sample(s) as detailed in the referenced SOPs and that all test conditions have been found to meet the required acceptance criteria for a valid test, including the appropriate results for the positive and negative controls.

Report Date: February 28, 2007

Case Details:

Cell Line: H1 lot 11

Passage #: 29

Date Completed:

Cell Line Gender: Male

Investigator:

Specimen: hESC on MEF feeder

Date of Sample: 2/21/2007

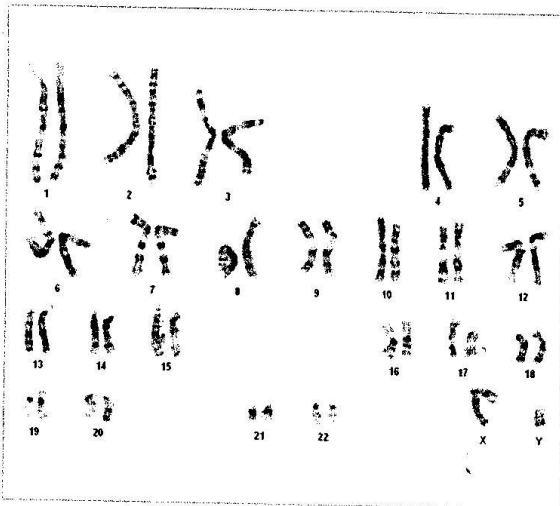
Tests, Reason for: G-Band chromosome analysis of H1 lot 11 p29 for distribution lot characterization

Results: 46,XY

Completed by: Feb-07

Reviewed and interpreted:

Interpretation: No abnormalities were detected at the standard level of resolution.



Cell: S01-03

Slide: B

Slide Type: Karyotyping

Cell Results: Karyotype: 46,XY

of Cells Counted: 20

of Cells Karyotyped: 5

of Cells Analyzed: 9

Band Level: 450-500