

## CERTIFICATE OF ANALYSIS

**Product Code:** PT-5025  
**Product:** Human Dental Pulp  
Stem Cells 1M

**Lot Number:** 0000361427  
**Manufacture Date:** 21-Mar-2013

TEST (Method)	SPECIFICATIONS		Results
	Min.	Max.	
Tissue Acquisition Number	***	***	25885
DONOR CHARACTERISTICS			
Age	***	***	16 Y
Sex	***	***	MALE
Race	***	***	UNKNOWN
VIRUS TESTING			
HIV Test	***	***	Not Detected
HBV Test	***	***	Not Detected
HCV Test	***	***	Not Detected
MICROBIAL TESTING			
Sterility Test	***	***	Negative
Mycoplasma	***	***	Negative
CELL PERFORMANCE TESTING			
Viability	>=70%	***	86 %
Cell Count (cells/vial)	>=1x10E+6	***	1470000
Total Population Doublings	>=10	***	13
Seeding Efficiency	>=25%	999	92 %
CD34, CD45, & CD133	***	<=10%	< 10.0 %
CD105, CD166, CD29, CD90, & CD73	>=90%	***	> 90.0 %

These cells were isolated from donated human tissue after obtaining permission for research use by informed consent or legal authorization. This product is for research use only. Details concerning the use of our cell and media products can be downloaded from our website at [www.lonza.com/cell-protocols](http://www.lonza.com/cell-protocols).

This lot has been reviewed by Quality Assurance in compliance with requirements of Lonza's Quality System.

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