



Embryoid Body (EB) Pluripotency Analysis

Customer Information

Project Title	Embryoid Body Pluripotency Analysis				
Name					
Organization					
Email					
Report Date					

Summary

Service Details					
Cell Type	Human iPS cells				
Cell Line	See table 1				
Culture Conditions	Matrigel + SFF Medium (Applied StemCell, #ASM-5010)				
Histology	 10% Formalin fixed over night 				
	 Embedded in paraffin, cut into 5-μm serial sections 				
	• IHC staining using anti-alpha-fetoprotein (AFP; endoderm), anti-smooth muscle actin (SMA; mesoderm) and anti-tubulin III (ectoderm).				
Imaging	Microscope: Nikon Eclipse E1000 with motor macro slide Camera: Nikon Photohead V TP				

Results

- Line #1 stained positive at high or moderate levels for the endoderm (AFP), mesoderm (SMA) and ectoderm (beta-IIItubulin) markers.
- Line #2 stained positive, at high levels for both the endoderm and the ectoderm markers but only at a weak level for the mesoderm marker.
- Line #3 stained positive at high levels for the ectoderm marker, positive at weak levels for the endoderm marker and showed negligible staining for the mesoderm marker.

Cell Line	Passage #	AFP (Endoderm)	SMA (Mesoderm)	beta-III-Tubulin (Ectoderm)
#1	P12	+++	++	+++
#2	P11	+++	+	+++
#3	P9	+	-	+++

Table 1: Summary of IHC Staining

Abbreviation: AFP = Alpha Fetoprotein, SMA = Smooth Muscle Actin

. +++ = Strong staining, ++ = moderate staining, + = weak staining, - = negligible or no staining

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Sample Report

Images iPSC Lines #1 - 3



SMA Tubulin III

AFP

Conclusion

- Line #1 can be classified as pluripotent.
- Line #2 is borderline pluripotent/multipotent.
- Line #3 can be classified at multipotent.