



CERTIFICATE OF ANALYSIS

Product Name: Human Liver-derived Endothelial Cells
Catalog Number: HLEcP0

Lot Number: HL170062ECp0

STORAGE CONDITION

Short-Term (1-3 days): -80°C

Long-Term (>3 days): Liquid nitrogen vapor phase

QUALITY CONTROL RESULTS

Appearance:	Yellowish frozen liquid
Passage Number:	0
Post-Thaw Yield:	1.2 x 10 ⁶ viable cells / vial
Post-Thaw Viability (AO/PI stain):	85%
Population Doubling:	1.7 Days
Cell Size Average:	17.1 microns
Mycoplasma (Roche MycoTOOL®):	Undetected
Culture Morphology:	Characteristic morphology (see Figure 1)
Biomarker Expression by Flow Cytometry:	Characteristic expression (see Figure 2)

SEROLOGY

Anti-CMV:	Positive
EBV:	Positive
Anti-HCV:	Non-reactive
Anti-HBcAb:	Non-reactive
HBsAg:	Non-reactive
HBsAb (optional):	Not tested
Anti-HIV I/II:	Non-reactive
Anti-HTLV I/II (optional):	Not tested
Syphilis:	Non-reactive

A handwritten signature in blue ink that reads "Ken Dorko".

Ken Dorko, Associate Director Laboratory Operations

09-05-2019
Date

FIGURE 1. Culture Morphology

Shown for thawed and cultured, passage 1 cells

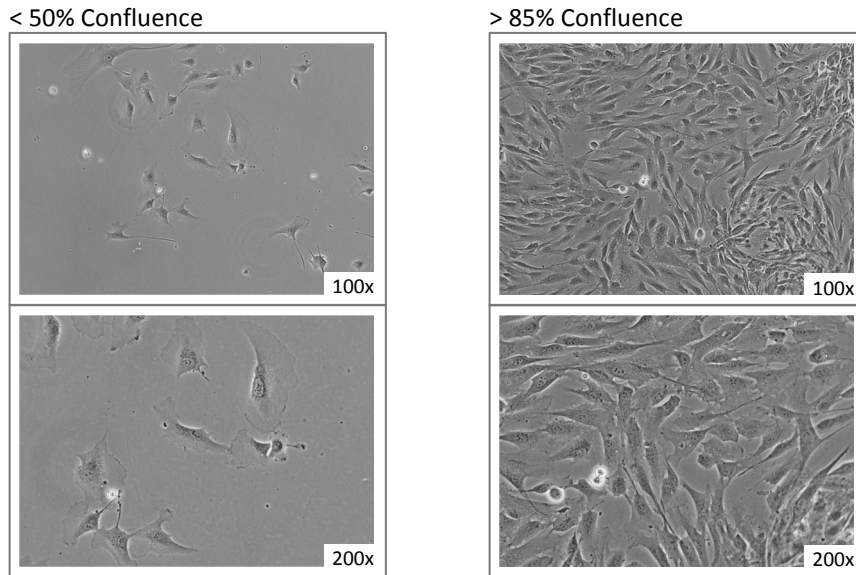
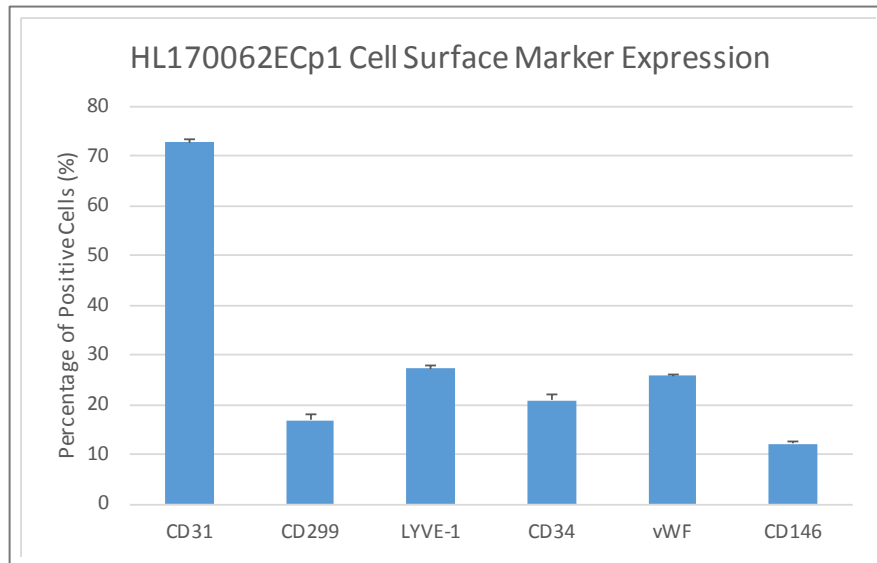


FIGURE 2. Flow Cytometry Profile

Shown for thawed and cultured, passage 2 cells



Results above determined by following Samsara Endothelial Cell care and handling protocols.