BD Accuri™ C6 and BD Stemflow™ hMSC Analysis Kit:
Characterization of human mesenchymal stromal cells

This experimental data demonstrates the characterization of human mesenchymal stromal cells (hMSCs) using the BD Accuri™ C6 personal flow cytometer.

Experiment

Human MSCs (Lonza) were cultured, detached, and then analyzed for their expression of the ISCT-defined positive and negative expression markers of multipotent MSCs.[1] Data was collected and analyzed on a BD Accuri C6 personal flow cytometer. The plots were derived from gated events based on light scattering characteristics of the MSCs.

Material

Reagents

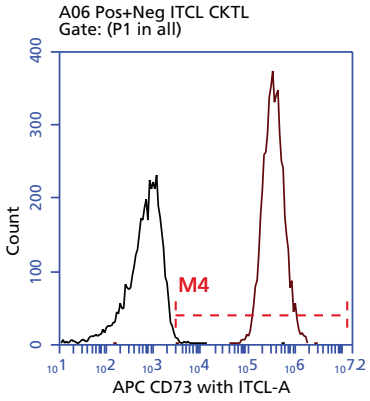
BD Stemflow Human MSC Analysis Kit (Cat. No. 562245), including hMSC-positive marker cocktail (CD73, CD90, and CD105), hMSC-negative marker cocktail (CD34, CD11b, CD19, CD45, HLA-DR), PE anti-CD44, and matched isotype control cocktails

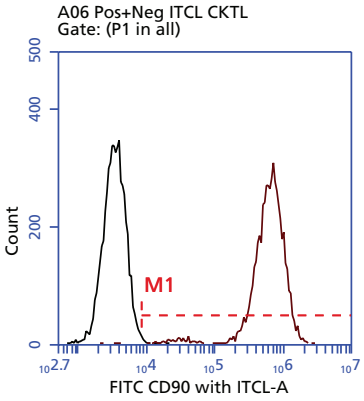
Additional Material

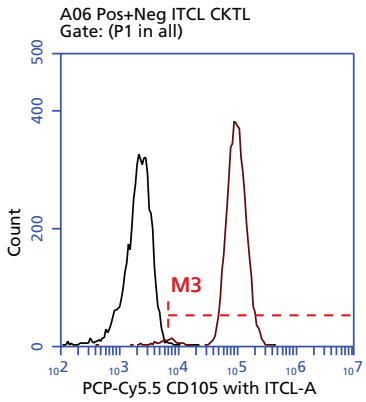
BD Mosaic™ hMSC SF cell culture environment (Cat. No. 355700)
BD™ Accutase™ Cell Detachment Solution (Cat. No. 561527)

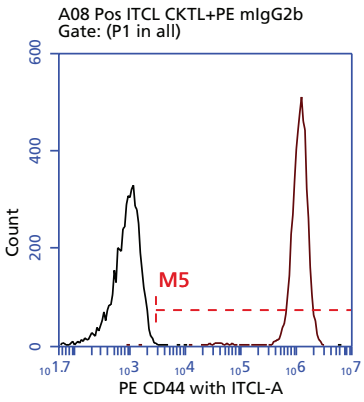
Data

Positive Markers

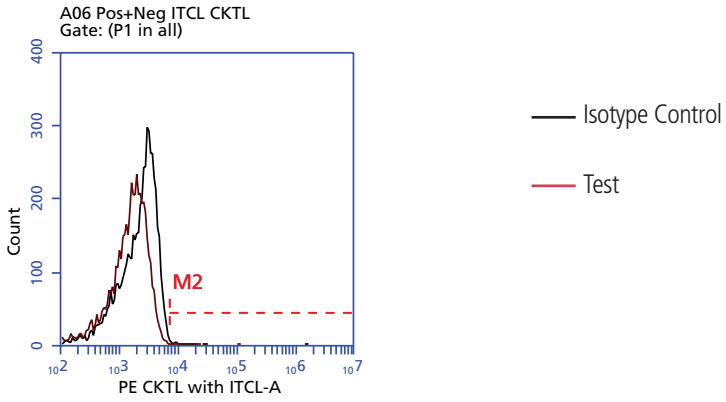








Negative Marker Cocktail



Discussion

The data demonstrates that rapid and multiparametric flow cytometry using the BD Accuri C6 personal flow cytometer and BD Stemflow hMSC Analysis Kit is effective for multi-marker immunophenotypic characterization of human mesenchymal stromal cells.

Reference

1. Dominici M, Le Blanc K, Mueller I, et al. Minimal criteria for defining multipotent mesenchymal stromal cells. The International Society for Cellular Therapy position statement. *Cytotherapy*. 2006;8:315-317.