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. 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

<table>
<thead>
<tr>
<th>Positive Markers</th>
<th>Gate: (P1 in all)</th>
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</thead>
<tbody>
<tr>
<td>APC CD73 with ITCL-A</td>
<td>M4</td>
</tr>
<tr>
<td>FITC CD90 with ITCL-A</td>
<td>M1</td>
</tr>
<tr>
<td>PCP-Cy5.5 CD105 with ITCL-A</td>
<td>M3</td>
</tr>
<tr>
<td>PE CD44 with ITCL-A</td>
<td>M5</td>
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![Data Diagram]
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