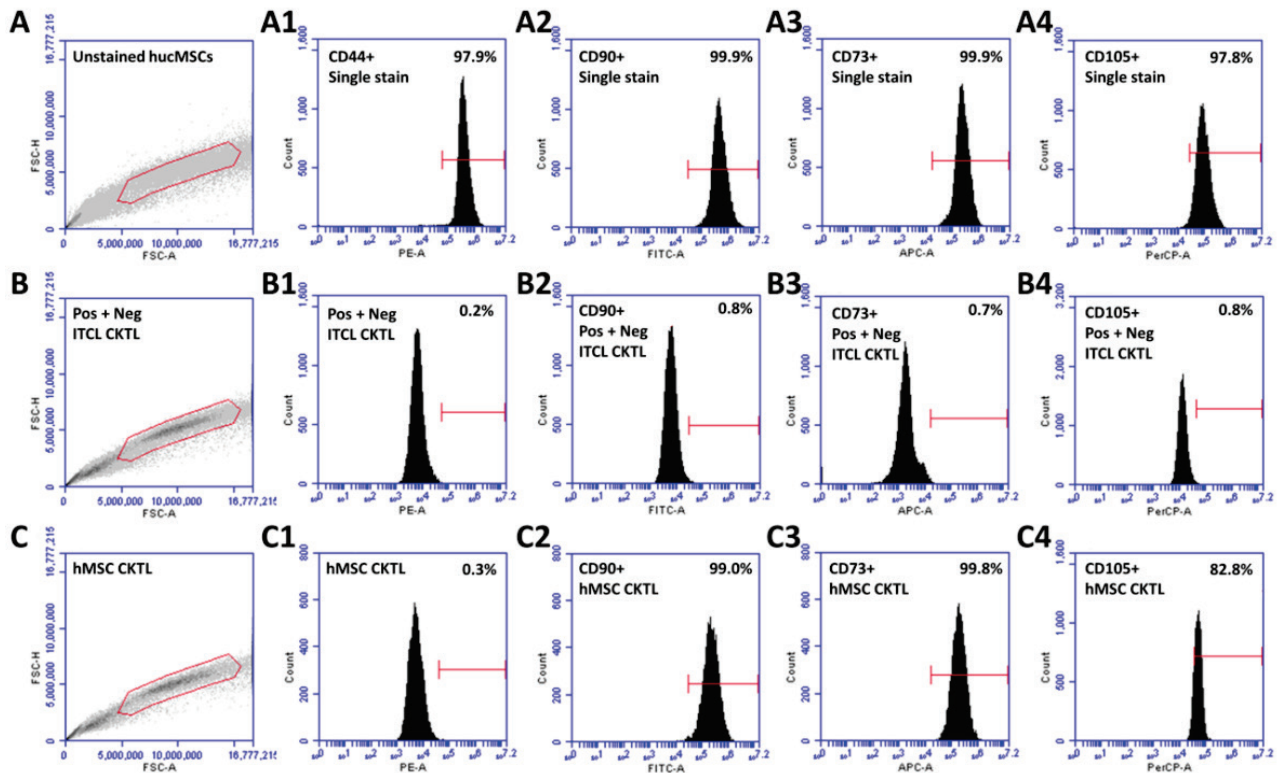




Supplementary Fig. 1. The evaluation of hucMSC markers. **(A)** Single staining of huMSCs. **(B)** Gates were drawn based on isotype control cocktails **(C)** hucMSCs expressed the major positive surface markers (CD90, CD73, CD105), while very few expressed the negative markers (CD34, CD11B, CD19, CD45, and HLA-DR).

The positive and negative markers of hucMSCs were estimated by Human MSC analysis kit (562245, BD Biosciences, United States). The schematic workflow of MSCs was followed:

1. Cells gating (Sup. Fig. A, B, C)
2. PE Mouse Anti-Human CD44 (**A1**)
3. FITC Mouse Anti-human CD90 (**A2**)
4. APC Mouse Anti-Human CD73 (**A3**)
5. PerCP-CyTM5.5 Mouse Anti-Human CD105 (**A4**)
6. PE hMSC Negative Isotype Control Cocktail (mIgG1, κ PE; mIgG2a, κ PE) (**B1**)
hMSC Positive Isotype Control Cocktail (mIgG1, κ FITC; mIgG1, κ APC; mIgG1, κ PerCP-Cy5.5) (**B2, B3, and B4, respectively**)
7. PE hMSC Negative Cocktail (CD34 PE, CD11b PE, CD19 PE, CD45 PE, HLA-DR PE) (**Fig. C1**)
hMSC Positive Cocktail (CD90 FITC, CD73 APC, CD105 PerCP-Cy5) (**C2, C3, and C4, respectively**)

The flow cytometry analysis showed that hucMSCs expressed the major positive surface markers in the positive marker cocktails (CD90, CD73, and CD105) (**C2, C3, and C4, respectively**), while very few expressed the negative surface markers in the MSC negative marker cocktail (CD34, CD11B, CD19, CD45, AND HLA-DR) (**C1**).