CLAIMS

What is claimed is:

1. A method of distinguishing mesenchymal stem cells (MSCs) from fibroblast, comprising:

isolating the MSCs from the fibroblasts using a marker EphA2 expressed on the MSCs so as to distinguish the MSCs from the fibroblasts,

wherein the MSCs and fibroblasts are from a primary culture of cells derived from a placenta-related tissue.

2. The method of claim 1, wherein the placenta-related tissue is selected from the group consisting of amniotic membrane, chorionic disk, chorionic membrane, and umbilical cord.

3. The method of claim 1, wherein the isolating step is performed through an antibody-based or a nucleotide-based isolation method.

4. The method of claim 1, further comprising the preliminary step of:

collecting the MSCs and the fibroblasts from the placenta-related tissue;

culturing the MSCs and the fibroblasts in a culture medium to prepare the primary culture.

5. The method of claim 3, wherein the antibody-based isolation method is an antibody-based magnetic cell sorting or an antibody-based flow cytometry.

6. The method of claim 3, wherein the nucleotide-based isolation method is a nucleotide-based flow cytometry.