**S4 Table**: Criteria for identification of cell population as human mesenchymal stromal cells

| **Author (Year)** | **Does study report the MSC criteria are met?** | **Plastic-adherent in standard culture conditions?** | **Positive marker** | **Value given (%)\*** | **Negative marker** | **Value given (%)\*** | **Were MSC supplied?** | **Differentiation capability** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Gonzalez-Rey (2009)46 | N | U | CD73, CD90, CD105 | NR | CD14, CD34, CD45 | NR | N | O, A |
| Moodley (2009)45 | N | Y | CD73 | NR | CD34, CD45 | NR | N | O |
| Bi (2010)59 | N | Y | CD105,  | NR | CD45 | NR | N | NR |
| Krasnodem-bskaya (2010)11 | Y | U | NR | N/A | CD45, CD19 | NR | Y, Texas A&M Health Science Center College of Medicine, Bryan, Texas | NR |
| Yagi (2010) #140 | N | U | NR | N/A | NR | N/A | Y, Tulane Center for Gene Therapy, New Orleans, Louisiana | NR |
| Yagi (2010) #242 | N | U | NR | N/A | NR | N/A | Y, Tulane Center for Gene Therapy, New Orleans, Louisiana | O, A |
| Danchuk (2011)13 | N | U | NR | N/A | NR | N/A | Y, Center for the Preparation and Distribution of Adult Stem Cells, Institute for Regenerative Medicine, Texas A&M Health Sciences Center, Bryan, Texas | NR |
| Kim (2011)10 | N | Y | CD105, CD73  | 99.6, 96.3,  | CD34, CD45, CD14 | 0.1, 0.2, 0.1 | N | O, A, C |
| Sun (2011) #137 | N | Y | CD73 | NR | CD45, CD34,  | NR | N | O, A |
| Chien (2012)27 | N | U | NRMR | NR | NRMR | N/A | N | NR |
| Krasnodem-bskaya (2012)31 | Y | U | NR | N/A | CD45, CD19 | NR | Y, Texas A&M Health Science Center College of Medicine, Bryan, Texas | NR |
| Li (2012)15 | N | Y | CD73, CD90, CD105 | 99.74, 99.1, 84.1 | CD34, CD45 | 0.4, 0.1 | N | O, A |
| Wu (2012)#253 | N | U | NR | N/A | NR | N/A | N | NR |
| Gao (2013)52 | N | U | CD90 | 90.6 | CD34 | 1.8 | N | NR |
| Lim (2013)14 | N | U | NR | N/A | NR | N/A | Y, Tulane Center for Gene Therapy, New Orleans, Louisiana | NR |
| Shin (2013)12 | N | Y | CD90, CD105 | 98.5, 39.7 | CD34 | <1 | N | NR |
| Yang (2013) #118 | N | U | CD73, CD90, CD105 | 99.28, 100, 99.37 | CD19, CD34, CD45, CD11b, HLA-DR | 0.15, 0.09, 0.02, 0.77, 0.96 | Y, State Stem Cell Industry Base, Tianjin, China | NR |
| Zhang (2013)57 | N | Y | NRMR | NR | CD11b, CD45 | NR | N | O, A |

Abbreviations: A=adipocyte, C=chondroblast, N=no, N/A=not applicable, NR= not reported, NRMR=no relevant marker reported, O=Osteoblast, U=unclear, Y=yes

\*Minimum MSC criteria (Dominici, 2006) specify ≥95% of the cells must express CD105, CD73 and CD90 while ≤2% of cells can express CD45, CD34, CD14 or CD11b, CD79α or CD19, and HLA-DR