Definitions

Wharton's Jelly: Wharton's jelly, a gelatinous connective tissue contained in the

umbilical cord, is abundant in mesenchymal stem cells (MSCs).

Stored cell number: The total number of mesenchymal stem cells that are isolated from the

umbilical cord Wharton's jelly, and cryo-preserved after cell expansion.

Storage method: Mesenchymal stem cell are stored in cryo-vials.

Cell viability: The percentage of viable cells.

Microorganism testing Positive represents microorganism contamination, and therefore unfit

result: for storage. Negative represents microorganism contamination has not

been detected.

Endotoxin: A toxin associated with outer membranes of certain gram-negative

bacteria. Endotoxins are released when the cells are disrupted, and a

large quantity can cause adverse effects. US Food and Drug

Administration recommends that for drug products, the limit for

amount of endotoxin is < 5EU/kg.

Mycoplasma: A type of bacteria that lacks cell wall. Positive represent contamination.

Negative represents contamination has not been detected.

Cell surface antigen

markers:

Based on literature references, mesenchymal stem cells express surface antigens such as CD105, CD44, CD29, CD90, CD73, CD13. But does not

express CD45, CD14, CD34, CD31, CD19, HLA-DR.

(+) represents that the expression is detected, (-) represents that the

expression is not detected.

References

- 1. Adult mesenchymal stem cells: Characterization, differentiation, and application in cell and gene therapy. Baksh D et al., 2004.
- 2. Multilineage Potential of Adult Human Mesenchymal stem cells. Pittenger MF et al., 1999.
- 3. Regenerative and immunomodulatory potential of mesenchymal stem cells. Krampera M et al., 2006.
- 4. Minimal criteria for defining multipotent mesenchymal stromal cells. The International Society for Cellular Therapy position statement. Cytotherapy. 2006;8(4):315-7.