

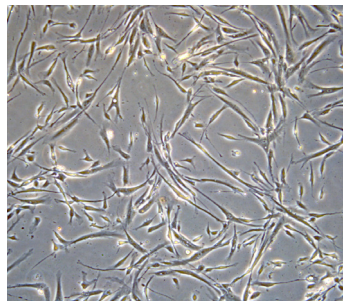


Bone Marrow Mesenchymal Stem Cells



StemExpress® human bone marrow-derived mesenchymal stem cells (BM-MSCs) are multipotent stromal cells that can differentiate into the cells of the connective tissue in vitro, such as chondrocytes (cartilage), osteoblasts (bone) and adipocytes (fat). Cultured MSCs have shown promising applications in cell-based therapeutic strategies for specific tissue regeneration, immunomodulation, and cancer research.

BM-MSCs are obtained by separating mononuclear cells (MNCs) from whole bone marrow by a density gradient centrifugation protocol. MNCs are then expanded in culture for 9 to 14 days and verified for purity by showing >90% expression of CD73, CD90, and CD105, and <5% expression of CD14, CD34 and CD45 by flow cytometry.



StemExpress® Human BM-MSC Proliferation

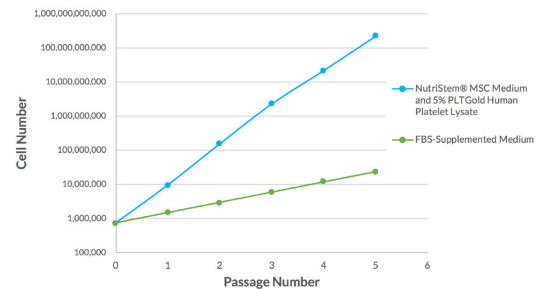


Figure 1: StemExpress® Human BM-MSCs cultured in NutriStem® MSC Medium supplemented with 5% PLTGold® Human Platelet Lysate show typical healthy MSC morphology (5X magnification) (left image). BM-MSCs cultured in NutriStem® MSC Medium and 5% PLTGold® expand rapidly in culture (passaged every 4 days), with high expansion rates compared to typical results with serum-containing media (passaged approximately every 7 days) (right image).

Product	Cat. #	Size
Human BM-MSCs, Frozen	BMMSC001C	1 million cells
	BMMSC002C	2 million cells
Human BM-MSCs, Fresh	BMMSC001F	1 million cells
	BMMSC002F	2 million cells
NutriStem® MSC Medium	05-200-1A-KT	500 mL
PLTGold® Human Platelet Lysate, Research-grade	PLTGOLD100R	100 mL
PLTGold® Human Platelet Lysate, Clinical-grade	PLTGOLD100GMP	100 mL

* Additional sizes and/or customization available upon request.

How to Order

Biological Industries USA | T. 860.316.2702 F. 860.269.0596 | orders@bioindusa.com