

Bone Marrow Mesenchymal Stem Cells



StemExpress® human bone marrow-derived mesenchymal stem cells (BM-MSCs) are defined by their multipotentiality and capacity to differentiate into cells of the connective tissue, including chondrocytes (cartilage), osteoblasts (bone), and adipocytes (fat), in vitro. As MSCs continue to show vast potential in cell-based therapeutic applications for tissue regeneration, immunomodulation, and cancer research, it is key to incorporate high-quality cells into the workflows that will accelerate clinical progress in this field.

StemExpress® BM-MSCs are obtained by separating mononuclear cells (MNCs) from whole bone marrow using 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. BM-MSCs are available in both fresh and frozen formats to readily fit the precise needs of any given research workflow.

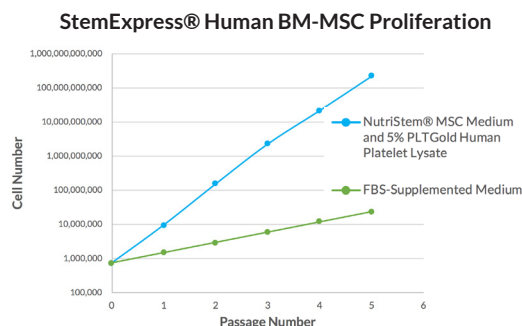
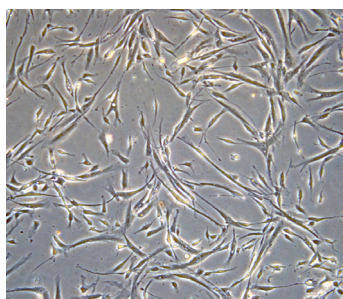


Figure 1: StemExpress® Human BM-MSCs cultured in NutriStem® MSC Medium supplemented with 5% PLTGold® Human Platelet Lysate show typical healthy MSC morphology (5X magnification) (left). BM-MSCs cultured in NutriStem® MSC Medium and 5% PLTGold® expand rapidly in culture (passaged every 4 days), with high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

ORDERING INFORMATION

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	PLTGOLD27R	27 mL

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