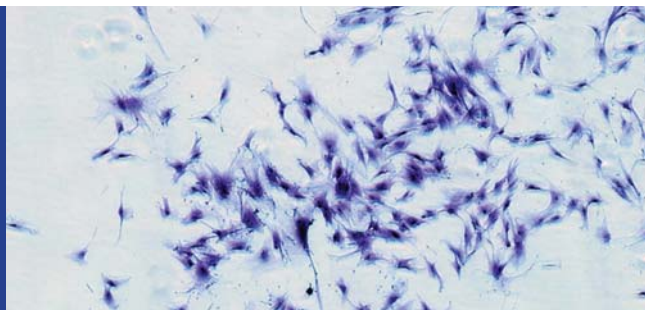


HUMAN MESENCHYMAL STEM CELL (hMSC) PRODUCTS



Certified Fetal Bovine Serum (FBS) Qualified for hMSCs

Cat. No.:
04-400-1B 100ml
04-400-1A 500ml

The USDA grade certified Fetal Bovine Sera (FBS) qualified for MSC are high quality pre-screened FBS batches. It saves time and efforts by eliminating the need to test multiple lots for performance.

MSC qualified FBS are screened for the following:

- Ability to differentiate
- Morphology
- Cell growth and expansion
- Clonal efficiency

Each lot of FBS is extensively tested for its ability to support in vitro growth and expansion of undifferentiated hMSCs in two culture systems:

I. Promotion of cell growth and expansion

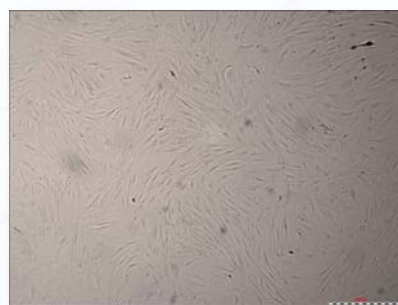


Figure 1.
hMSC-BM cultured in DMEM low-Glucose supplemented with 10% of Biological Industries' MSC Qualified FBS

II. Clonal efficiency

MSC Colony Forming Unit-Fibroblast (CFU-F) assay was used to evaluate the self renewal potential of hMSC in tested conditions. Optimized serum will induce higher numbers of MSC colonies when cultured at very low seeding density.

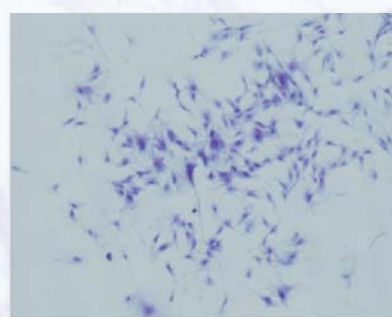
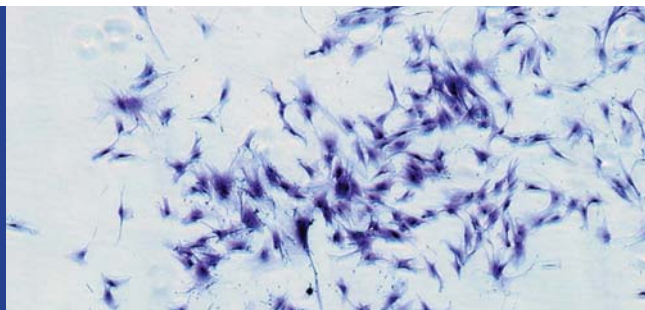


Figure 2.
Represented colony stained with 0.5% crystal violet following 14-day CFU-F assay of hMSC-AT cultured in DMEM low-glucose supplemented with 10% of Biological Industries' MSC Qualified FBS.

HUMAN MESENCHYMAL STEM CELL (hMSC) PRODUCTS



MSC Freezing Solution

Cat. No.:
05-712-1D 10ml
05-712-1E 50ml

A chemically defined, animal component-free and protein-free formulation for optimal cryopreservation of hMSC

- A complete, ready-to-use solution
- Protein-free
- Non-animal or human derived components
- Suitable for cells cultured in both serum-free and serum-containing media
- High cell viability after thawing



Figure 3. hMSC-AT frozen in MSC Freezing Solution; 2 days after thawing (in serum-free medium)

Xeno-Free MSC Attachment Solution

Cat. No.:
05-752-1F 1ml
05-752-1H 5ml

A xeno-free solution for attachment and spreading of hMSC in serum-free conditions

- Ready-to-use solution
- Xeno-free
- Designed for use in serum-free culture systems



Figure 4. hMSC-BM 8 days from seeding on plates coated with MSC Attachment Solution growing on serum-free medium

Trypsin Substitutes for Cell Dissociation

MSC Dissociation Solution (Plant Enzyme Derived)

Cat. No.:
03-075-1B 100ml
03-075-1C 20ml

Optimized Animal component-free (ACF) formulation for efficient detachment of hMSCs from culture vessels

- Ready-to-use solution
- No animal or human derived components
- Contains plant-derived enzyme
- Works with both serum-free and serum-containing culture systems
- Allows high viability and rapid detachment of single cell suspension

MSC Dissociation Solution (Non-Enzymatic)

Cat. No.:
03-077-1B 100ml
03-077-1C 20ml

A chemically defined, animal component-free formulation for gentle and efficient dissociation of hMSCs

- Ready-to-use solution
- Chemically defined
- Contains a proprietary mixture of chelators
- Suitable for both serum-free and serum-containing culture systems
- Reduces the risk of cell damage associated with enzyme based dissociation solutions