

Human HMSC-BM (HMSC-BM) | 300665

General information

Description	Human HMSC-BM (HMSC-BM) is a human mesenchymal stem cell line derived from human bone marrow. It is characterized by its ability to differentiate into various cell types, including osteoblasts, adipocytes, and chondrocytes. The cells are typically cultured in DMEM supplemented with 10% FBS. The cell line is maintained in a continuous culture and is used for research in bone tissue engineering and regenerative medicine.
Organism	Human
Tissue	Bone marrow
Applications	Cell culture, differentiation, gene expression analysis, drug screening

Characteristics

Age	Adult
Gender	Male
Ethnicity	Caucasian
Morphology	Adherent, fibroblastic, typical of mesenchymal stem cells. Cells are typically 5-10 µm in diameter and form a confluent monolayer. The cells are characterized by their ability to differentiate into various cell types, including osteoblasts, adipocytes, and chondrocytes.
Cell type	Stem cell
Growth properties	High proliferation rate, typical of mesenchymal stem cells.

Additional information

Citation	Human HMSC-BM (HMSC-BM) (ATCC C-12710) Cytion 300665
Biosafety level	1
NCBI_TaxID	9606

Additional information

Freeze medium α -MEM α -MEM, 80% FBS + 10% α -MEM + 10% DMSO α -MEM α -MEM, CM-1 (α -MEM α -MEM)

Human HLA-B*07:01 (HMSC-BM) | 300665

Thawing and
Culturing Cells

1. Thaw cells rapidly at 37°C, transfer to a pre-warmed medium, and centrifuge at 300 x g for 5 minutes. Resuspend the cell pellet in 10 ml of pre-warmed medium.
2. Seed cells into a 25 cm² flask containing 10 ml of pre-warmed medium. Incubate at 37°C with 5% CO₂ for 24 hours.
3. After 24 hours, replace the medium with fresh pre-warmed medium. Incubate at 37°C with 5% CO₂ for 48 hours.
4. Harvest cells after 48 hours. Wash cells with PBS and resuspend in 1 ml of PBS. Count cells and adjust concentration to 1 x 10⁶ cells/ml.
5. Seed cells into a 25 cm² flask containing 10 ml of pre-warmed medium. Incubate at 37°C with 5% CO₂ for 24 hours.
6. After 24 hours, replace the medium with fresh pre-warmed medium. Incubate at 37°C with 5% CO₂ for 48 hours.
7. Harvest cells after 48 hours. Wash cells with PBS and resuspend in 1 ml of PBS. Count cells and adjust concentration to 1 x 10⁶ cells/ml.
8. Seed cells into a 25 cm² flask containing 10 ml of pre-warmed medium. Incubate at 37°C with 5% CO₂ for 24 hours.

Incubation
Atmosphere

37°C, 5% CO₂, humidified

Flask Coating

Adherent cells: 100% efficiency, non-adherent cells: 0%

Freezing
Procedure

Cells are frozen in a freezing medium and stored at -80°C.

Shipping
Conditions

Cells are shipped in a freezing medium and stored at -80°C.

Storage
Conditions

Cells are stored in a freezing medium at -150°C for 196 days.

HLA-B*07:01 / HLA-A*02:01 / HLA

Sterility

Cells are tested for sterility using PCR and are found to be free of contamination. Cells are also tested for mycoplasma and are found to be free of contamination.