

PowerStem MSC1

PowerStem MSC1 is an easy to use xeno-free medium without animal derived components (ADCF) for cultivation and proliferation of human mesenchymal stem cells (hMSC). PowerStem MSC1 is especially designed for the proliferation of human mesenchymal stem cells without differentiation. PowerStem MSC1 supports long-term growth of MSC and preserves their multi-lineage potential. In addition, MSC cultured in PowerStem MSC1 expands faster and shows a significant reduction in hematopoietic cell contamination at early passages compared to serum-based media. To differentiate the proliferated MSC into different cells types the relevant protocols and differentiation factors should be used.

Both the PowerStem MSC1 basal medium and PowerStem MSC1 growth supplement are guaranteed stable for 6 months when properly stored. PowerStem MSC1 complete medium (basal + supplement) is stable for 1 month when stored in the dark at 2-8° C. We do not recommend using the complete medium beyond one month. Do not freeze complete PowerStem MSC1 medium.

Composition

PowerStem MSC1 contains salts, amino acids, trace elements, hormones, growth factors, and enriched human proteins and lipids in an optimized formulation. PowerStem MSC1 is free of animal derived components (ADCF, xenofree) and contains no undefined peptones or hydrolysates.

Suitability

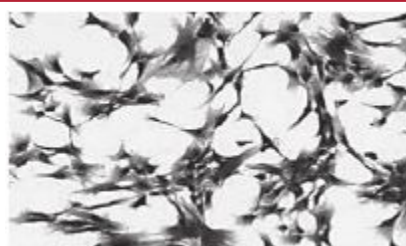
Serum-free cultivation of human mesenchymal stem cells (hMSC) while maintaining the undifferentiated state and multi-lineage potential. Please note: For research use only, not for therapeutic or diagnostic use.

Special advantages

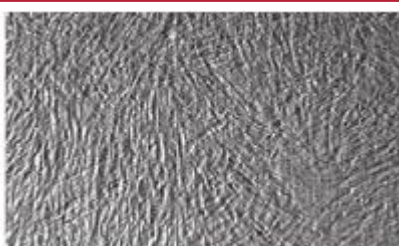
PowerStem MSC1 allows the cultivation of human mesenchymal stem cells under xeno-free conditions. It is free of animal or human serum and thus enables constant and comparable experimental conditions resulting in highly reproducible data. PowerStem MSC1 is completely free of animal components (ADCF, xeno-free) and thus suitable for a research approach in regenerative medicine and tissue engineering. By adding specific differentiation factors, MSC can differentiate in vitro to the desired cell types (bone, cartilage, adipose tissue etc.).

Instructions for use

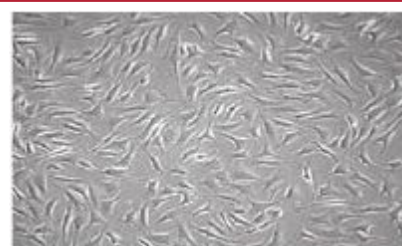
Detailed instructions will be provided with the accompanying datasheet for PowerStem MSC1. In addition, instructions for use can also be found at www.pan-biotech.com. For more instructions please see instruction manual for isolation and culture of hMSC.



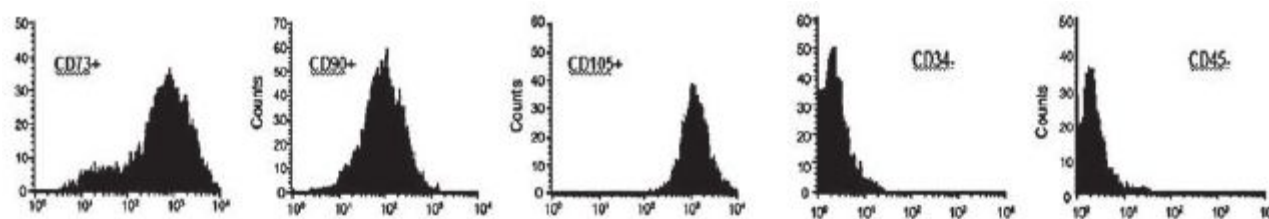
Sub-confluent hMSC in PowerStem MSC1



Confluent hMSC in PowerStem MSC1



hMSC in medium with 10% FBS



The culture-expanded cell population expresses CD90 (Thy-1), CD105 (SH2) and CD73 (SH3/SH4) but lacks expression of CD34 and CD45.

PowerStem MSC1⁽³⁾

100 ml Kit
500 ml Kit

P04-77310K
P04-77350K

(1) usually on stock, (2) minimum order 10 l, (3) available on request