# StemSpan™ Megakaryocyte Expansion Supplement (100X)

Serum-free culture supplement for expansion of human megakaryocytes

Catalog # 02696 1 mL



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### **Product Description**

StemSpan™ Megakaryocyte Expansion Supplement (100X) (formerly known as CC220) contains a combination of recombinant human cytokines formulated to selectively promote the expansion and differentiation of human megakaryocyte progenitor cells from CD34+ cells isolated from human cord blood (CB) or bone marrow (BM) samples.

StemSpan™ Megakaryocyte Expansion Supplement (100X) is intended for use in combination with any of the following StemSpan™ media:

- StemSpan™ SFEM (Catalog #09600) serum-free medium
- StemSpan™ SFEM II (Catalog #09605) improved version of SFEM serum-free medium
- StemSpan<sup>™</sup>-ACF (Catalog #09805) human and animal component-free medium

#### Advantages:

- Formulated to produce large numbers of human megakaryocytes in liquid cultures initiated with CD34+ CB or BM cells.
- Optimized for use with StemSpan™ media. When combined with StemSpan™ SFEM II in particular, supports up to 2-fold higher expansion of megakaryocytes from human CD34+ CB cells than other serum-free media on the market.
- Supplied as a 100X concentrate. After thawing and mixing, the tube contents can be added directly to any hematopoietic cell expansion medium of choice.

## **Properties**

Storage: Store at -20°C to -70°C.

Shelf Life: Stable until expiry date (EXP) on label.

Contains: • Recombinant human stem cell factor (SCF)

• Recombinant human interleukin 6 (IL-6)

• Recombinant human interleukin 9 (IL-9)

Recombinant human thrombopoietin (TPO)

## Handling / Directions For Use

- Thaw StemSpan<sup>™</sup> Megakaryocyte Expansion Supplement (100X) at room temperature (15 25°C) until just thawed and mix well.
  NOTE: If necessary, centrifuge for 30 seconds to recover liquid from cap.
  - NOTE: Once thawed, store supplement at 2 8°C for up to 1 month. Alternatively, aliquot and store at -20°C. After thawing aliquots, do not re-freeze.
- 2. Add StemSpan™ Megakaryocyte Expansion Supplement (100X) to culture medium at a 1 in 100 dilution (e.g. add 1 mL of Supplement to 99 mL of culture medium). Mix well.

#### ASSESSMENT OF DIFFERENTIATED CELLS

Assessment of HSPCs before and after culture, and megkarocytes after culture, may be performed by flow cytometry using the following fluorochrome-conjugated antibody clones:

- Anti-Human CD34 Antibody, Clone 581 (Catalog #60013) or Clone 563 (Catalog #60119) or Clone 8G12 (Catalog #60121)
- Anti-Human CD45 Antibody, Clone HI30 (Catalog #60018) or Clone 2D1 (Catalog #60123)
- Anti-Human CD41 Antibody, Clone HIP8 (Catalog #60114)

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## Notes and Tips

**RELATED PRODUCTS** 

For related products, including specialized culture and storage media, supplements, antibodies, cytokines, and small molecules, visit www.stemcell.com/HSPCworkflow or contact us at techsupport@stemcell.com. For available fresh and cryopreserved peripheral blood, cord blood, and bone marrow products in your region, visit www.stemcell.com/primarycells.

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