StemSpan™ Megakaryocyte Expansion Supplement (100X)

Serum-free culture supplement for expansion of human megakaryocytes

Catalog # 02696 1 mL

STEMCELL™ TECHNOLOGIES
Scientists Helping Scientists™ | WWW.STEMCELL.COM
TOLL FREE PHONE 1 800 667 0322 • PHONE +1 604 877 0713
INFO@STEMCELL.COM • TECHSUPPORT@STEMCELL.COM
FOR GLOBAL CONTACT DETAILS VISIT OUR WEBSITE

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™-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

1. Thaw StemSpan™ 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.