

MethoCult™ SF H4436

Serum-free methylcellulose-based medium with recombinant cytokines for human cells

Catalog #04436

100 mL



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Product Description

Complete Serum-Free Methylcellulose-Based Medium for Colony-Forming Unit (CFU) Assays for Human Cells

MethoCult™ SF H4436 is recommended for the culture of human hematopoietic progenitors in defined serum-free conditions. It is optimized for the detection and quantification of hematopoietic progenitor cells in human bone marrow, mobilized peripheral blood, peripheral blood, and cord blood samples using CFU assays. MethoCult™ is suitable for use with CD34+ enriched cells, mononuclear cells, and cells isolated by other purification methods. MethoCult™ SF H4436 is formulated to support optimal growth of erythroid progenitor cells (CFU-E and BFU-E), granulocyte-macrophage progenitor cells (CFU-GM, CFU-G, CFU-M), and multipotential granulocyte, erythroid, macrophage, megakaryocyte progenitor cells (CFU-GEMM).

Properties

Storage: Store at -20°C.

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

Contains:

- Methylcellulose in Iscove's MDM
- Bovine serum albumin
- 2-Mercaptoethanol
- Recombinant human insulin
- Human transferrin (iron-saturated)
- Recombinant human stem cell factor (SCF)
- Recombinant human interleukin 3 (IL-3)
- Recombinant human interleukin 6 (IL-6)
- Recombinant human erythropoietin (EPO)
- Recombinant human granulocyte colony-stimulating factor (G-CSF)
- Recombinant human granulocyte-macrophage colony-stimulating factor (GM-CSF)
- Supplements

This product contains material derived from human plasma. Donors have been tested and found negative for HIV1 and 2, hepatitis B, and hepatitis C prior to donation. However, this product should be considered potentially infectious and treated in accordance with universal handling precautions.

Directions for Use

NOTE: If product is received partially thawed, place immediately at -20°C or thaw completely and aliquot as described below. Do not use MethoCult™ past the expiry date as indicated on the label.

NOTE: Do not use pipettes to dispense methylcellulose as the volume dispensed will not be accurate. Syringes and large-bore blunt-end needles should be used for accurate dispensing of viscous methylcellulose medium and to prevent needle-stick injuries.

1. Thaw 100 mL bottle of MethoCult™ SF H4436 at room temperature (15 - 25°C) or overnight at 2 - 8°C.

NOTE: Do not thaw MethoCult™ at 37°C.

2. Shake vigorously for 1 - 2 minutes and then let stand for at least 5 minutes to allow bubbles to rise to the top before aliquoting.
3. Using a 3 or 6 mL luer lock syringe attached to a 16 Gauge Blunt-End Needle (Catalog #28110), aliquot 3 mL per tube for 1.1 mL duplicate cultures or 4 mL per tube for 1.1 mL triplicate cultures. Tubes can be used immediately, stored at 2 - 8°C for up to 1 month, or stored at -20°C. After thawing aliquoted tubes of MethoCult™, mix well and use immediately. Do not re-freeze.

For recommended cell plating concentrations, setup of human CFU assays, and counting and classification of human colonies, refer to the Technical Manual: Human Colony-Forming Unit (CFU) Assays Using MethoCult™ (Document #10000005589), available at www.stemcell.com, or contact us to request a copy.

Notes and Tips

STEMCELL Technologies recommends the use of Human LDL (Catalog #02698) as a culture supplement. It has been pre-screened for the culture, expansion, and colony assay of human hematopoietic and non-hematopoietic cells in serum-free culture media. It promotes the proliferation and survival of human hematopoietic and other progenitor cells in culture, resulting in increased cell output in expansion cultures, and increased colony numbers and/or colony size in colony assays.

References

- Atlas of Hematopoietic Colonies from Cord Blood. (2010). Vancouver: STEMCELL Technologies Inc.
- Eaves CJ & Eaves AC. (2006) Anatomy and physiology of hematopoiesis. In: Pui CH (Ed.). Childhood Leukemia, Second Edition (pp.69–105). Cambridge: Cambridge University Press.
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- Nissen-Druey C et al. (2005) Human hematopoietic colonies in health and disease. Basel, Switzerland: S. Karger Medical and Scientific Publishers.
- Wognum B et al. (2013) Colony forming cell assays for human hematopoietic progenitor cells. In: Helgason CD & Miller CL (Eds.). Basic Cell Culture Protocols (pp. 267–83). Clifton, New Jersey: Humana Press Inc.

Related Products

For related products, including specialized culture and storage media, supplements, antibodies, cytokines, and small molecules, visit www.stemcell.com/product-portfolios/hematopoietic-stem-and-progenitor-cell-research/expansion-and-differentiation.html, or contact us at techsupport@stemcell.com. For available fresh and cryopreserved peripheral blood, cord blood, and bone marrow products, visit www.stemcell.com/human-primary-and-cultured-cells-overview.html.

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