MethoCult™ SF H4436

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

Catalog # 04436 100 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

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 (BM), mobilized peripheral blood (MPB), peripheral blood (PB), and cord blood (CB) 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 HIV-1 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.

Handling / Directions For Use

NOTE: If product is received partially thawed, place immediately at -20°C or thaw 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 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 Assays Using MethoCult™ (Document #28404), 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. (Catalog #29940)
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Eaves C & Lambie K. (1995) Atlas of Human Hematopoietic Colonies. Vancouver: STEMCELL Technologies Inc. (Catalog #28700)
Nissen-Druey C et al. (2005) Human hematopoietic colonies in health and disease. Basel, Switzerland: S. Karger Medical and Scientific Publishers. (Catalog #28760)
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.