

# MethoCult™ H4434 Classic



## Methylcellulose-Based Medium with Recombinant Cytokines for Human Cells

Catalog # 04434      100 mL  
04444                24 x 3 mL

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TOLL FREE PHONE 1 800 667 0322 • PHONE +1 604 877 0713

[INFO@STEMCELL.COM](mailto:INFO@STEMCELL.COM) • [TECHSUPPORT@STEMCELL.COM](mailto:TECHSUPPORT@STEMCELL.COM)

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## Product Description

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

MethoCult™ H4434 Classic (MethoCult™ GF H4434) is optimized for the detection and quantification of human hematopoietic progenitor cells in bone marrow (BM), mobilized peripheral blood (MPB), peripheral blood (PB) and cord blood (CB) samples using CFU assays. Suitable for use with CD34+ enriched cells, mononuclear cells and cells isolated by other purification methods.

MethoCult™ H4434 Classic is formulated to support optimal growth of erythroid progenitor cells (CFU-E and BFU-E); granulocyte/macrophage progenitor cells (CFU-GM, CFU-M, CFU-G) and multi-potential granulocyte, erythroid, macrophage and 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
  - Fetal bovine serum
  - Bovine serum albumin
  - 2-Mercaptoethanol
  - Recombinant human (rh) Stem Cell Factor
  - rh GM-CSF
  - rh IL-3
  - rh Erythropoietin (EPO)
  - Supplements

## 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.

### A. TO PREPARE 100 ML BOTTLE (Catalog #04434)

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

### B. TO PREPARE 3 ML TUBES (Catalog #04444)

1. Thaw 3 mL tubes of MethoCult™ at room temperature (15 - 25°C) or overnight at 2 - 8°C. Do not thaw MethoCult™ at 37°C. Mix thoroughly.

NOTE: After thawing tubes of MethoCult™, use immediately or store at 2 - 8°C for up to 1 month. Do not re-freeze.

For recommended cell plating concentrations, set-up of human CFU assays, and counting and classification of colonies, refer to the Technical Manual: Human Colony-Forming Unit Assays Using MethoCult™ (Document #28404), available on our website at [www.stemcell.com](http://www.stemcell.com) or contact us to request a copy.

## References

- Eaves CJ, Eaves AC: Anatomy and physiology of hematopoiesis. In: Childhood Leukemias (2nd Edition) (CH Pui, ed.), Cambridge University Press, Cambridge, pp 69-105, 2006
- Eaves C, Lambie K: Atlas of Human Hematopoietic Colonies, STEMCELL Technologies Inc., Vancouver, 1995 (Catalog #28700)
- Wognum B, Yuan N, Lai B, & Miller CL: Colony Forming Cell Assays for Human Hematopoietic Progenitor Cells. In: Basic Cell Culture Protocols (CD Helgason, CL Miller, eds.), Humana Press Inc., Clifton, New Jersey, p267-83, 2013.
- Nissen-Druey C, Tichelli A, Meyer-Monard S: Human Hematopoietic Colonies in Health and Disease, S. Karger Medical and Scientific Publishers, Basel, 2005. Reprint of Acta Haematol 113: 5-96, 2005 (Catalog #28760)

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