MethoCult™ H4435 Enriched

Methylcellulose-based medium with recombinant cytokines for human cells

Catalog #	04445	24 x 3 mL
	04435	100 mL

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Product Description

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

MethoCult™ H4435 Enriched (MethoCult™ GF+ H4435) is optimized for the detection and quantification of human hematopoietic progenitor cells in bone marrow, mobilized peripheral blood, peripheral blood, and cord blood samples using CFU assays. It is suitable for use with CD34+ enriched cells, mononuclear cells, and cells isolated by other purification methods.

MethoCult™ H4435 Enriched is formulated to support optimal growth of erythroid progenitor cells (CFU-E and BFU-E), granulocyte-macrophage progenitor cells (CFU-GM, CFU-G, and CFU-M), and multipotential granulocyte, erythroid, macrophage, megakaryocyte progenitor cells (CFU-GEMM).

Properties

Storage: Store at -20°C.

NOTE: Product may be shipped with dry ice or ice packs and may be received thawed.

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 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

Handling/Directions for Use

NOTE: If product is received partially thawed, place immediately at -20°C or thaw and aliquot as described below.

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 #04435)

1. Thaw MethoCult™ H4435 Enriched at room temperature (15 - 25°C) or overnight at 2 - 8°C. Do not thaw 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 luer lock syringe (3 mL [Catalog #28230] or 6 mL) attached to a 16 Gauge Blunt-End Needle (Catalog #28110), aliquot as follows:
   - 3 mL per tube for 1.1 mL duplicate cultures
   - 4 mL per tube for 1.1 mL triplicate cultures

   NOTE: Tubes can be used immediately, stored at 2 - 8°C for up to 1 month, or stored at -20°C. Do not exceed the shelf life of the medium. After thawing aliquoted tubes, mix well and use immediately. Do not re-freeze.

B. TO PREPARE 3 ML TUBES (Catalog #04445)

Thaw 3 mL tubes of MethoCult™ H4435 Enriched at room temperature (15 - 25°C) or overnight at 2 - 8°C. Do not thaw 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, setup of human CFU assays, and counting and classification of 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.

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, visit www.stemcell.com/primarycells.

References

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.

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.