MethoCult™ M3134

Base Methylcellulose Medium for Mouse Cells

Catalog #03134 40 mL

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Product Description

Base Methylcellulose Medium for Colony-Forming Unit (CFU) Assays for Mouse Cells

MethoCult™ M3134 is a base medium that contains 2.6% methylcellulose in Iscove's MDM. It does not contain serum, albumin, cytokines, or other medium supplements.

MethoCult™ M3134 is intended for making up a complete methylcellulose-based medium for CFU assays of mouse cells with the addition of desired components by the user. It is supplied in a volume of 40 mL per bottle. A 1% concentration of methylcellulose is obtained when brought to a volume of 100 mL.

Properties

Storage: Store at -20°C.

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

Contains:
- 2.6% Methylcellulose
- Iscove's MDM

Handling / Directions For Use

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

PREPARATION OF COMPLETE METHOCULT™ M3134 MEDIUM

MethoCult™ M3134 base medium does not contain cytokines or other medium supplements. These can be added directly to the bottle or to each tube after aliquoting. Refer to Table 1 for volumes required to prepare complete MethoCult™ M3134 medium per bottle or per tube. The 2:3 (v:v) ratio of MethoCult™ to other components in the liquid medium (e.g. cytokines) gives the correct viscosity for optimal CFU growth and morphology.

Use sterile techniques to prepare complete MethoCult™ M3134 medium (MethoCult™ M3134 base medium + desired components).

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

1. Thaw 40 mL bottle of MethoCult™ M3134 at room temperature (15 - 25°C) or overnight at 2 - 8°C. Do not thaw MethoCult™ at 37°C.
2. Prepare desired components, including fetal bovine serum (FBS), bovine serum albumin (BSA), cytokines, and Iscove's Modified Dulbecco's Medium (IMDM; Catalog #36150), as required, in a volume of 60 mL and add to MethoCult™ (total volume of 100 mL).
3. 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.
4. 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. Complete MethoCult™ medium is now ready for use.

B. TO PREPARE INDIVIDUAL TUBES

1. Thaw 40 mL bottle of MethoCult™ M3134 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 MethoCult™ M3134 base medium into tubes (see Table 1 for required volumes).

   NOTE: Before adding components, tubes of incomplete MethoCult™ medium may be stored at -20°C until expiry date as indicated on label. After thawing aliquoted tubes, add desired components and mix well.

4. Add desired growth factors, supplements and Iscove's Modified Dulbecco's Medium (IMDM; Catalog #36150) to tubes of MethoCult™ M3134 (see Table 1 for required volumes).
5. Vortex tubes to mix well. Complete MethoCult™ medium is now ready for use.
6. Aliquot any remaining MethoCult™ M3134 base medium for duplicate or triplicate cultures (see Table 1 for required volumes), store at -20°C, then add desired components after thawing. Mix well before use.

Table 1. Volumes Required for Preparation of Complete MethoCult™ M3134 Medium

COMPONENT	PER BOTTLE	PER TUBE (duplicate 1.1 mL cultures)	PER TUBE (triplicate 1.1 mL cultures)
MethoCult™ M3134	40 mL	1.2 mL	1.6 mL
IMDM with cytokines*	60 mL	1.8 mL	2.4 mL
TOTAL VOLUME	100 mL	3.0 mL	4.0 mL

*For a complete list of available cytokines, refer to our website at www.stemcell.com.

For recommended cell plating concentrations, setup of mouse CFU assays, and counting and classification of mouse colonies, refer to the Technical Manual: Mouse Colony-Forming Cell Assays Using MethoCult™ (Document #28405), available on our website at www.stemcell.com or contact us to request a copy.

References

Miller CL & Lai B. (2005) Human and mouse hematopoietic colony-forming cell assays. In: Helgason CD & Miller CL (Eds.). Basic Cell Culture Protocols (pp. 71–89). Totowa, New Jersey: Humana Press Inc.