

# 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. Do not use MethoCult™ past the expiry date as indicated on the label.

### 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.  
NOTE: 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 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.  
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 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 [www.stemcell.com](http://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 at [www.stemcell.com](http://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.

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