

ES-Cult™ M3120



Base methylcellulose medium for in vitro differentiation of mouse ES cells to hematopoietic or endothelial progenitor cells

Catalog # 03120 40 mL

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Product Description

ES-Cult™ M3120 is recommended as a base for the preparation of methylcellulose-based medium for the in vitro differentiation of mouse embryonic stem (ES) cells into hematopoietic progenitors. When supplemented with the appropriate additional components, ES-Cult™ M3120 can be used for the generation of embryoid bodies (EBs) from undifferentiated mouse ES cells. This product has been pre-screened for optimal performance when used with other reagents from the ES-Cult™ product line for the in vitro differentiation of mouse ES cells.

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.

1. Thaw at room temperature (15 - 25°C) or overnight at 2 - 8°C.
2. Swirl the bottle to mix.
3. Store at 2 - 8°C for up to 1 month. Alternatively, aliquot and store at -20°C. After thawing aliquots, do not re-freeze.

For detailed instructions on the use of ES-Cult™ M3120 methylcellulose-based medium, refer to the Technical Manual: In Vitro Hematopoietic Differentiation of Mouse ES & iPS Cells Using ES-Cult™ (Document #28415), available on our website at www.stemcell.com or contact us to request a copy.

NOTE: ES-Cult™ M3120 methylcellulose medium, supplemented with the appropriate additional components, can be used for the generation of EBs from undifferentiated ES cells. It is necessary to establish that a linear relationship between the number of undifferentiated ES cells plated and the number of embryoid bodies generated exists for the ES cell line used. The numbers and types of myeloid and erythroid (primitive and definitive) hematopoietic colonies obtained by secondary plating of dispersed EBs into ES-Cult™ M3120 methylcellulose medium (supplemented with the appropriate additional components) is dependent on variables such as the ES cell line used, the length of primary differentiation, and the combination of cytokines used in secondary plating. Variability from published results may arise due to inherent differences amongst various ES cell lines, or due to variability in the techniques used to maintain the cells in the undifferentiated state. For optimal performance, use ES-Cult™ pre-qualified reagents for ES cell culture. For further information, refer to our website at www.stemcell.com or contact us at techsupport@stemcell.com.

References

- Helgason CD et al. (1996) Overexpression of HOXB4 enhances the hematopoietic potential of embryonic stem cells differentiated in vitro. *Blood* 87(7): 2740–9.
- Keller G et al. (1993) Hematopoietic commitment during embryonic stem cell differentiation in culture. *Mol Cell Biol* 13(1): 473–86.

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