Collagen Solution

For preparation of collagen gels and for coating cell culture surfaces

Catalog #04902 35 mL

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Product Description

This product is suitable for the preparation of collagen gels for the culture of human or mouse megakaryocytic progenitor cells using MegaCult™-C. This product can also be used to prepare collagen films (collagen coating) on cell culture surfaces.

Properties

Storage: Store at 2 - 8°C.

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

Contains:
- 95 - 98% Type I bovine collagen (remainder consists of Type III bovine collagen), dissolved in 0.012 N HCl with a pH of 2.0 and a concentration of approximately 3 mg/mL

Directions For Use

For complete instructions on the preparation of collagen gels for the culture of human and mouse megakaryocytic progenitor cells in MegaCult™-C, refer to the Technical Manual: MegaCult™-C Assays for Quantitation of Human and Mouse Megakaryocytic Progenitor Cells (Document #10000005592), available at www.stemcell.com, or contact us to request a copy.

Collagen Solution may be used to prepare a collagen film on tissue culture surfaces to promote the adherence of fibroblast cell lines used in the long-term culture-initiating cell (LTC-IC) assay.

1. Place a thin layer of Collagen Solution on the surface of the dish or well to be coated.
   NOTE: 1 mL is sufficient to coat the surface of a 35 mm culture dish (e.g. Catalog #27100/38069).
2. Leave the solution on the surface for at least 1 minute. The excess collagen can then be transferred and used to coat the remainder of the dishes or wells.
3. Leave the dish(es) uncovered in a biosafety cabinet for a minimum of 1 hour or until the surface is completely dry. Replace the lid.
   NOTE: The dishes can be wrapped securely and stored at 4°C for up to 2 weeks.
4. Rinse the dish once with sterile phosphate-buffered saline (PBS) or medium to remove the residual acid prior to use.

Collagen Solution may also be used to prepare a thin collagen coating on tissue culture dishes. This thin layer of collagen promotes the proliferation of human mammary epithelial cells.

1. Prepare a 1:45 dilution of Collagen Solution in sterile PBS.
2. Place a thin layer of diluted Collagen Solution on the surface of the dish to be coated and incubate at 37°C for 1 hour.
3. Remove the Collagen Solution and rinse plate once with sterile PBS or medium to remove residual acid. Plates are now ready for use.

Notes and Tips

The rate of gel formation, gel consistency, and gel clarity may vary between lots. Agitation of the gel during formation, exposure to ultraviolet light, and temperature extremes can influence the integrity of the gel.

References

Emerman JT & Pitelka DR. (1977) Maintenance and induction of morphological differentiation in dissociated mammary epithelium on floating collagen membranes. In Vitro 13(5): 316–28.