

Collagen I-Cell Culture Surface Coating Kit (CCCSCCK)

Cat. No. CB014

Product Description

Type I collagen, a fibrous protein abundant in connective tissues such as the tendon, ligament, dermis and blood vessels, is the major component and the primary determinant of tensile strength of the extracellular matrix (ECM). It is widely used as a thin layer on tissue-culture surfaces to enhance the attachment and proliferation of a variety of cells including endothelial cells, fibroblasts, hepatocytes, and epithelial cells. In addition, collagen I can self-assemble into a 3-D supramolecular gel *in vitro*, making it an ideal biological scaffold to promote more *in vivo*-like cellular morphology and function. The collagen I-Cell Culture Surface Coating Kit includes collagen I purified from rat tail tendon by modification of the Bell Method and supplied as a sterile liquid in 1/1000 acetic acid. The kit also includes a 100× collagen I solvent, which can be used to dilute collagen I to the appropriate concentration for the coating of cell culture vessels.

Kit Components

Collagen I from rat tail, 1 mg/ml, 10 ml
Collagen I Solvent, 100×, 2 ml

Cell Culture Surface Coating Procedures

1. Dilute 100× Collagen I Solvent 1:100 with sterile DI H₂O (to make a 1× solution) and store at 2-8°C.
2. Dilute the collagen I (1mg/ml) with 1× Collagen I Solvent to give a final concentration of 50 µg/ml.
3. Coat the culture surface at a concentration of 5 µg/cm² (e.g. 125 µg, or 2.5 ml of 50 µg/ml collagen I is needed for coating a T-25 flask, which has a surface area of 25 cm²). Further dilution to as low as 0.5 µg/cm² may be required depending on the cell type and application.
4. Incubate for at least 1 hour at 37°C.
5. Aspirate the collagen I solution and rinse three times with sterile 1x PBS or media.
6. The collagen I coated culture vessel can be used immediately. For future use, collagen I coated vessel can be air dried in a laminar flow hood and stored at 4°C.

Usage

CCCSCCK is used to coat cell culture vessels *in vitro*. CCCSCCK is for research use only. It is not approved for human or animal use, or application in clinical or *in vitro* diagnostic procedures.