

CELL-BASED ASSAY KITS

COLLAGEN I-CELL CULTURE SURFACE COATING KIT

Product Type:	Collagen I Coating Kit
Catalog Number:	P8188

Type I collagen, a fibrous protein abundant in connective tissues including tendon, ligament, dermis and blood vessel, 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, epithelial cells and etc. In addition, collagen I can self-assemble into a 3-D superamolecular gel in vitro, making it an ideal biological scaffold to promote more in vivo-like cellular morphology and function. Innoprot's collagen I-Cell Culture Surface Coating Kit includes collagen I purified from rat tail tendon by a modification of the method of Bell et al and supplied as a sterile liquid in 1/1000 acetic acid. The kit also includes a 100X collagen I solvent, which can be used to dilute collagen I into appropriate concentration for the coating of cell culture vessels.

Quality Control

Innoprot's collagen I-Cell Culture Surface Coating kit is tested for the promotion of adherence of human dermal fibroblasts and tested and found negative for bacterial contamination.

Kit Components

Name	Qty	Storage
Collagen I from rat tail, 1 mg/ml	10 ml	2-8°C
Collagen I solvent, 100×	2 ml	RT

Cell Culture Surface Coating Procedures

1. Dilute 2 ml of 100× Collagen I Solvent with 198 ml of DI H₂O, store at 2-8°C as the 1× Collagen I Solvent, keep sterile.
2. Dilute appropriate volume of 1 mg/ml collagen I 20 times with the 1x Collagen I Solvent to give a final concentration of 50 µg/ml.
3. Add 100 µl of 50 µg/ml collagen I per 1 cm² surface area to be coated, which corresponds to 5 µg /cm². Further dilution to as low as 0.5 µg/cm² may be desirable depending on cell type and application.
4. Incubate for at least 30 minutes at 37°C.
5. Aspirate the collagen I solution and rinse three times with PBS or culture medium.
6. The collagen I coated culture vessel can be used immediately or after air dry for about 60 minutes in a laminar flow hood.