Datasheet and Instructions for Use

Collagen I

Type I solution (0.4 %)

Product	Description	Catalogue-No.	Size
Collagen I	**Collagen I, 0.4 % sterile solution from Bovine Calf Skin**	**P06-20300**	**100 ml**

Product description

Collagen is one of the main structural components of the ECM in connective tissue and internal organs. It is mostly prevalent in skin, tendon, and bones. Type I Collagen is a heterodimer consisting of two α_1(I)-chains and one α_2(I)-chain, that spontaneously form a triple helix at neutral pH and 37 °C.
It is used in the production of gels, to embed cells. Type I Collagen-Gels are suitable for use as a substrate for adherent cells in a cell culture vessel or as a floating matrix in or on a cell culture medium.

Storage conditions

Storage: 2-8 °C
Size: 100 ml, other sizes on request

Composition

4 mg/ml acid soluble Collagen (type I) of bovine calf skin in 15 mM HCl

Special Advantages

- Excellent substrate for the culture of epithelial cells and many other cell lines
- Culture of cells with which hardly or don't proliferate at all on glass or plastic surfaces
- Adherence of cells in culture media without serum or fibronectin
- Analysis of cell migration
- Change of cell appearance in 3D-collagen gels
- Morphological analysis
- Maintenance of Cell differentiation status of higher cells
- Development of tissue like structures *in vitro* and the application of them in wound healing processes

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Instructions for Use

Preparation of collagen gels

Additional required material**:**

- 10x sterile medium (e.g. RPMI 1640)
- Water (ultrapure)
- HEPES Buffer
- Collagen I
- NaOH

Geling is heavily influenced by the pH value. Before beginning to work pre-cool all reagents to a temperature of 2 – 8 °C.

Solution A: 0.7 M NaOH and 1 M HEPES Buffer are mixed equally (e.g 5 ml NaOH and 5 ml HEPES Buffer

Solution B: 10x Medium and Solution A are mixed equally (e.g. 5 ml Medium with 5 ml Solution A

- pH of Solution B should be between 7.90 and 8.05. It is advisable to check the pH using a suitable measuring method. If the gel should remain sterile, measure the pH of an aliquot previously removed.
- 8.0 ml Collagen I is gently mixed with 2.0 ml of Solution B to produce the ready-to-use solution for geling. This prevents the formation of air bubbles.
- 3.0 ml of solution prepared in this way is pipette into a 25 cm^2 culture flask. For a culture flask is then incubated vibration-free for at least 1 hour or, for optimal stability, 24 hours at 35 °C (± 2 °C)

Technical support

For technical support, questions or remarks please contact your local PAN-Biotech partner or the technical department of PAN-Biotech via email (info@pan-biotech.com) or phone +49-8543-601630.

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