

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 $\alpha_1(I)$ -chains and one $\alpha_2(I)$ -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: -20 °C

Size: 100 ml, other sizes on request

Composition

4 mg/ml acid soluble Collagen (type I) of bovine calf skin in 10 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

Instructions for Use

Preparation of collagen gels

Additional required material:

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

Gelling 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 gelling. This prevents the formation of air bubbles.
- 3.0 ml of solution prepared in this way is pipetted into a 25 cm² culture flask. 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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