



# PRODUCT DATA SHEET

## Collagen Bio Tubes (CBT)

### At a glance

- Premium quality from bovine skin
- For ordering use SAP No. 500056507; Ø 4,5mm; 30mm
- 500048677; Ø 4,5mm; 60mm
- 500056506; Ø 2,5mm; 30mm
- 500048678; Ø 2,5mm; 60mm

### Benefits

- ✓ Tubes from highly purified Collagen type I
- ✓ Excellent biocompatibility
- ✓ Standardized production

### Disclaimer

All data and recommendations correspond to the present state of our knowledge; they are published without engagement. We reserve the right to make alterations and additions in line with technical developments without prior notice. The customer is obliged to check whether our products meet with his own technical requirements. We shall be glad to answer any queries.

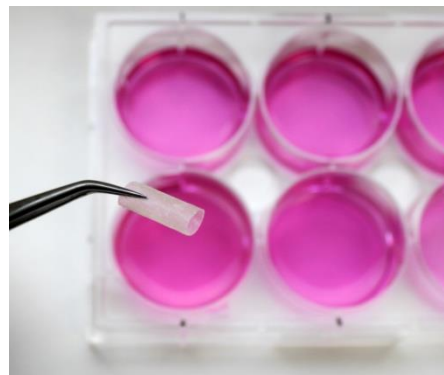
### Product Description

CBT are sterile, compact non-porous tubes made of pure, non-cross-linked bovine collagen type I that can be used for cell cultivation.

The CBT are delivered dry, sterile and individually packed and sterilized. Before cell seeding it needs to be rehydrated and equilibrated with medium. To ensure good performance the recommended user protocol should be used.

### Product Specifications

Parameter	Collagen Cell Carrier
Source	bovine dermis, age ≤ 30 months
Appearance	Thin translucent collagen tube
Length (mm)	30 or 60
Diameter (mm)	2,5 or 4,5
Sterilisation Dosis	>25 KGy (Gamma radiation)
Biocompatibility (WST-1 Test)	Yes



### SUPPORT

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### Storage

The originally packed CBT should be stored dry and dark between +15°C and +25°C in closed packaging.

### Storage life

60 months

### Intended use

CBT are intended for research use only. They are neither intended for human nor animal diagnostic, therapeutic use or any other clinical use.

### Corresponding documents:

- Certificate of Analysis – Collagen Bio Tubes (CBT)
- User Protocol – Collagen Bio Tubes (CBT)
- Application Note – Detachment of cells cultured on Fibrous Collagen Surfaces
- Application Note – Staining of cells grown on Fibrous Collagen Surfaces

### Applications

The CBT are robust and can be used for the growth and differentiation of various cell types, representing an *in-vivo*-like collagen for use in bioreactors or conventional cell culture-treated well plates. They are produced with a standardized, industrial process. The CBT allow also the combination with additional matrix molecules and / or growth factors. They are best suited for cultivation of adherent primary cells, stem cells and cell lines, whereat cells can grow inside and outside the tubes. Also allowing directed differentiation, they represent an excellent scaffold for complex tissues and tissue engineering. Additionally, the high mechanical strength of the CBT permits the easy and sterile translocation of the intact cell-scaffold complex e.g. for transplantation experiments or histological analyses.

**Passaging** For cell passaging or preparation of cell suspensions (e.g. for flow cytometry) standard detachment procedures can be used to detach adherent cells from the CBT.

**Implantation** CBT exhibit excellent biocompatibility *in vivo*. In various experiments resorption was observed several weeks post implantation, depending on the target organ, without notable immunoreaction.

**Immunofluorescence** The CBT exhibit a very low autofluorescence which makes them applicable for fluorescent imaging of cultured cells. The cells can be fixed and the staining procedure can be carried out directly on the cell seeded tube.

**Histological analysis** Fixation of cells on the CBT can be performed by all standard fixation protocols like e.g. paraformaldehyde, buffered formaldehyde, glutardialdehyde, acetone or methanol. The CBT can be frozen or embedded in paraffin or epoxy resins (e.g. EPON) and sliced with a cryostat or microtome, respectively. The CBT is also suitable for electron microscopic investigations.

**Metabolic analysis of cells with colorimetric methods** Cell viability and growth of cells on and in the CBT can be monitored by colorimetric methods (tetrazolium based salts) according to the manufacturer's recommendations.



**We welcome your feedback!**

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