

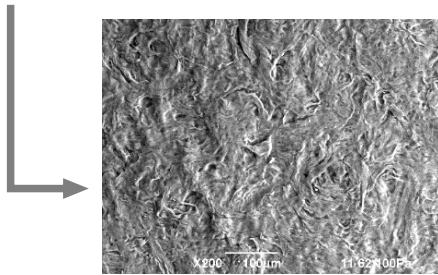
# Cross-linked Collagen Sheet

Developed a highly compressed sheet that maintains a fibrous structure equivalent to collagen in vivo!



- Cross-linked collagen fiber sheet
- Material: Pepsin solubilized collagen derived from porcine skin
- Size: Diameter 1.2 cm  
: Thickness approximately 0.2 mm
- EOG sterilized

- Highly purified collagen (over 95% purity) is used as the raw material.
- Cells can be cultured on the sheet.
- Maintains high strength after culturing.
- Customizable size according to application (special orders available)

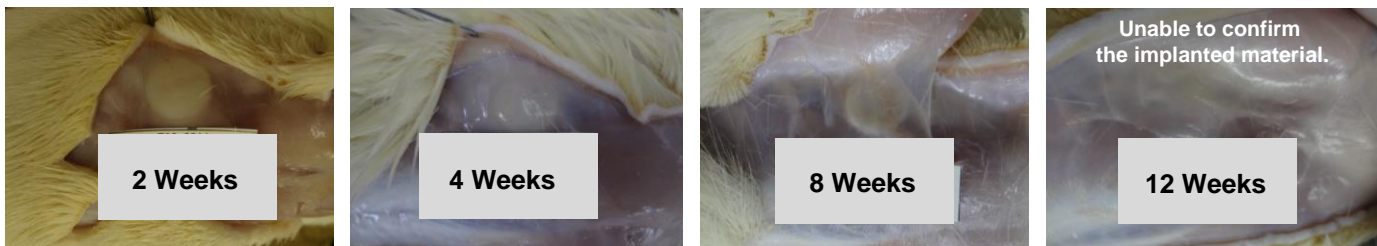


Electron Microscope Image:  
High density fiber formed

USES

Cell Culture Substrate  
Carrier for Cell Transplantation

## Animal Testing (Implantation test for rat subcutaneous tissue)



In the early stages of implantation, fibrosis and infiltration of inflammatory cells are observed in the surrounding tissues, and phagocytosis progresses.

- ▶ In some cases, the material completely disappears in approximately 8 to 12 weeks in faster individuals.

Product Code	Product name	1set
892 203	Cross-linked Collagen Sheet, Porcine skin, Pepsin soluble, $\phi 12 \times 0.2$ mm	6 sheets

Manufactured by

**nippi** Nippi, Incorporated

1-1-1 Senjumidori-cho, Adachi-ku, Tokyo 120-8601, JAPAN

PHONE : +81-3-3888-5184

FACSIMILE : +81-3-3888-5136

E-mail : protein-info@nippi-inc.co.jp

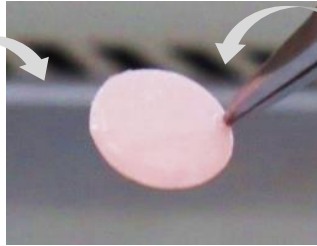
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# Cross-linked Collagen Sheet

## Culture example

### • Vascular endothelial cells

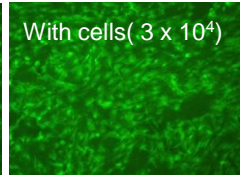
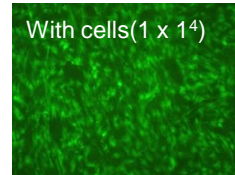
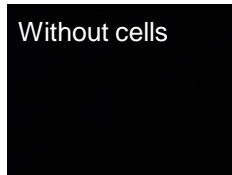
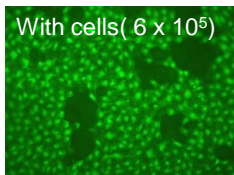
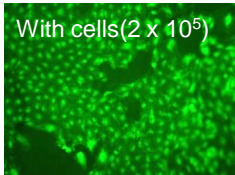
Endothelial cells, which line the interior of blood vessels, are cultured on a collagen sheet.



### • Dermal fibroblasts

Fibroblasts, which produce collagen in the dermis, are cultured on a collagen sheet.

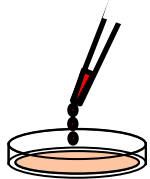
At week 2 of culture (a photo showing cells fluorescing green).



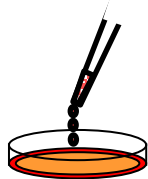
▶ The following cells have been confirmed to adhere and proliferate.

- **Human Umbilical Vein Endothelial Cells (HUVEC)**
- **Normal Human Dermal Fibroblasts (NHDF)**
- **Human Alveolar Basal Epithelial Adenocarcinoma Cells (A549)**
- **Human Breast Cancer Cells (MCF-7)**

## Examples of collagen sheet usage



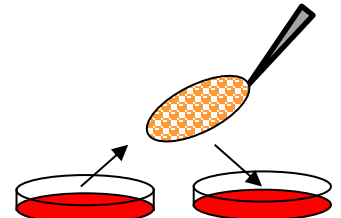
Place the sheet into a 24-well plate, add 100  $\mu$ L of medium, and wet the sheet.



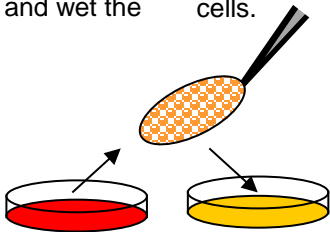
Slowly add the medium containing suspended cells.



Place it in the incubator.



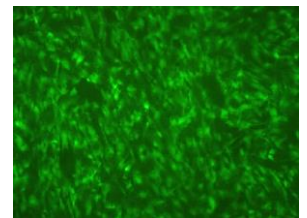
From the following day onward, transfer the cells to a new well with fresh medium using sterile tweezers, and perform a medium change.



Containing cell staining dye



Observe under a fluorescence microscope



Cell staining image after 2 weeks of culture (NHDF)

**Precautions for use: Due to its low light transmission, observation of cells requires fluorescence staining.**

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