



This unique *in vitro* cell culture and tissue engineering scaffold is made from 100% Bacterial NanoCellulose.

Product Description

The BNC Sheet's three-dimensional matrix is designed to be used in small to large scale tank reactors for animal cell culture. Made from 100% cellulose, this all-natural scaffold is a dietary and edible fibre. The nano-fibres have diameters ranging from 20-100nm, which gives the BNC Sheet a very large surface area for cell attachment. The BNC Sheet has excellent mechanical and thermal stability.

Features & benefits



Edible



High Fibre



Biodegradable

Features	Benefits
Physical dimensions	A 3-D cellulose matrix with nano-fibrils ranging in diameter from 20-100nm.
All natural and non-synthetic	Totally biodegradable.
Dietary	Bacterial nanocellulose is a dietary edible fibre.
Stability	The BNC Sheet has excellent mechanical and thermal stability.
Porosity	Interconnecting pores throughout the matrix will allow cells to migrate throughout the scaffold. Also allows media permeation and gas exchange for long term cell survival.
Density	<0.1g/cm ³
Shape	BNC Sheets can be manufactured in all shapes and sizes.
Shipping and Storage	As the scaffold is made from cellulose, it can be shipped and stored at room temperature.
Sterility	Unsterile
Colour	White
Moisture Retention	Up to 14x own dry weight.
Harvesting of Cells	Because the BNC Sheet is made from an edible cellulose fibre, there is no need to separate cells from the scaffold.
Usage and Purpose	Samples for research and development purposes only. Refer to MSDS.

Instructions for use

Rehydration



The dry BNC Sheet is hydrated in a calcium and magnesium free PBS (10g/L). The air trapped in the BNC Sheet, causing it to float, is removed using a mild vacuum. The BNC Sheet will sink once all the trapped air is removed. Once rehydrated, the BNC Sheet will become flexible.

Sterilisation



Without removing the PBS, the BNC Sheet can be sterilised by autoclaving (for example 121°C for 15 minutes at 15psi).

Washing



Remove the PBS either by suction or decanting, add new PBS and mix. Remove PBS and add culture medium.