

BioMESH®

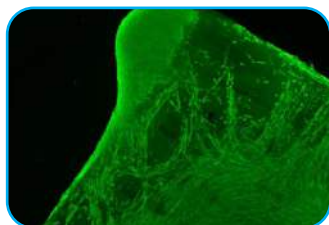
Macroporous Carriers for High-Density Cell Harvesting



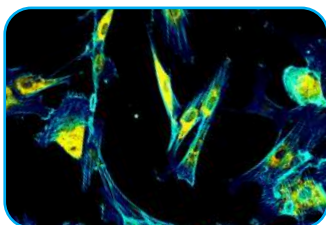
BioMESH® is a patented low-lint macrocarrier designed specifically for cell harvesting applications. It is suitable for use with skin fibroblasts, cardiac fibroblasts, multipotent/pluripotent stem cells, epithelial cells, and chondrocytes.

Cells can grow undisturbed in 3D while maintaining a stable environment with minimal shear stress. The Tide Motion bioreactor enables adherent cells to grow at high density and produce larger volumes of biomass, secreted or non-secreted products, with low lint and particulate contamination.

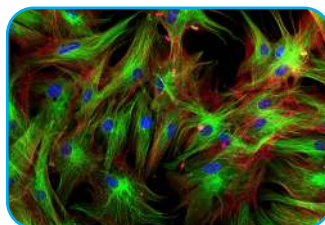
Cultured Mesenchymal Stem Cells, Fibroblasts, Fibroblast-Like Cells



MSCs



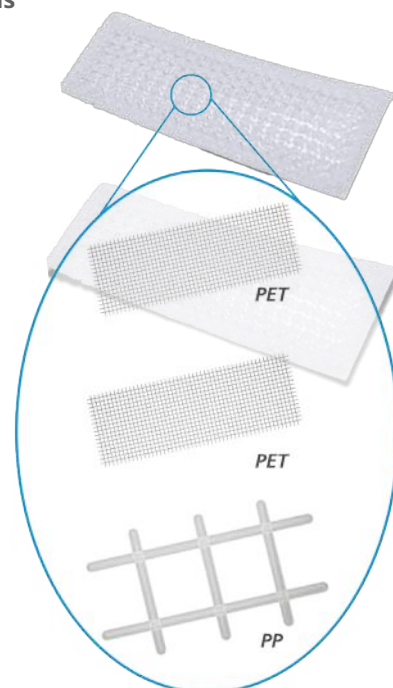
Fibroblast

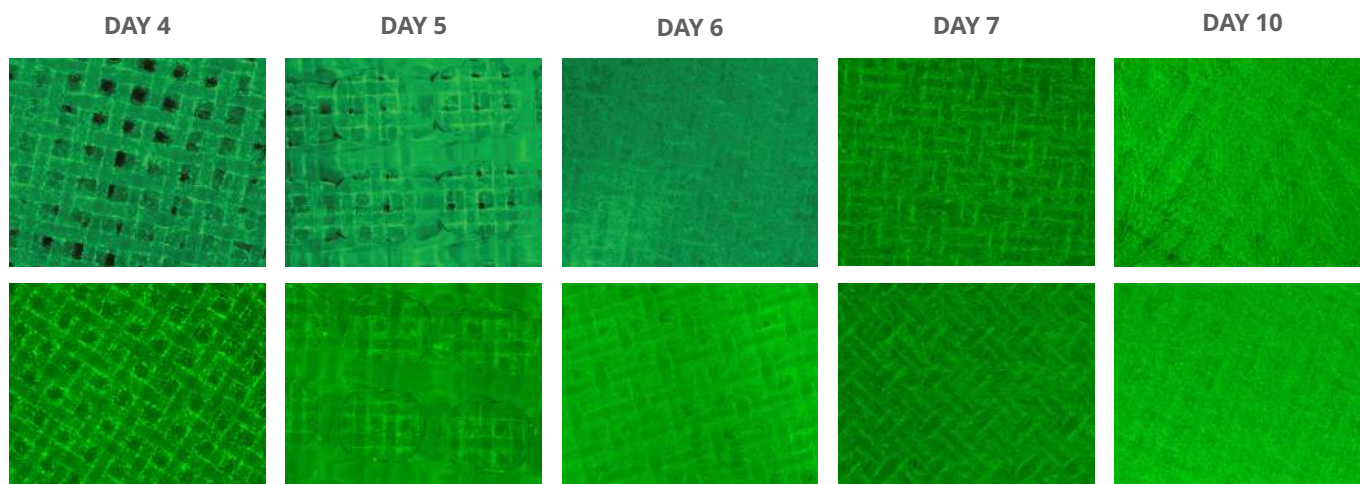


Skin Cells

Key Features:

- Made of a combination of polypropylene (PP) netting and PET mesh
- Complies to USP <83> <87> <788>, USP Class VI, ISO 10993-5
- High porosity (200 µm space between PET fiber; 670 µm space between PP fiber)
- High surface area for cell growth: up to 10,000 cm² per 0.1 L packed bed volume for MSCs
- Enhanced hydrophilicity, coating factors can be added





Day 4 to day 10 of umbilical cord derived stem cells (MSCs) cultured in BioMESH® carriers

Applications

Application/ Macrocarriers	EV/Exosomes	Cell Therapy (when harvesting the cells as final product)	Intracellular Virus (when harvesting the cells containing the virus)	Secreted Bioproducts (Virus, Viral Vectors, Proteins)	Cultivated Meat	Biomass Production	Stem Cell Expansion
BioMESH®	+++	+++	+++	++	+++	+++	+++

Specifications

BioMESH®	
Material	Polyethylene terephthalate (PET) and polypropylene (PP)
Dimension	23.0 +/- 1.0 mm x 9.0 +/- 0.5 mm
Dimension for cell growth	20.4 x 6.4 mm
Base weight per piece	0.06 +/- 0.01 g/pc
Occupied bed volume	5.5 mL/g of carriers
Inoculum requirement	2~2.5 x 10 ⁵ cells/mL bed
Maximum cell density	1x10 ⁸ cells/g of carriers
Sterilization	Autoclave 121 °C, 30 mins; EO or γ-irradiation (pre-packed)
Endotoxin	<0.25 EU/mL
Bioburden	<1 CFU/gram of carriers
Cytotoxicity	Non-toxic
Biosafety	Compliant with USP Class VI, ISO 10993-5, ISO10993-6, ISO10993-11, ISO10993-18, ISO 10993-23, USP<661.1>, USP<788>

Ordering Information

Item Code	Product Name	Package
1400396	BioMESH® Cell Culture Carriers (50 g)	50 grams per bottle
1400397	BioMESH® Cell Culture Carriers (100 g)	100 grams per bottle
1400398	BioMESH® Cell Culture Carriers (250 g)	250 grams per bottle

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HEALTHCARE



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KDBIO

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