Jellagen
MARINE BIOTECHNOLOGIES

PRODUCT TECHNICAL SPECIFICATION

NEXT GENERATION COLLAGEN

Jellagen® 3D Scaffolds

Next Generation Jellyfish Collagen 3D Scaffolds for *in vitro* cell culture and tissue engineering.

PRODUCT DESCRIPTION

3D scaffolds of jellyfish collagen, suitable for cell culture research and tissue engineering purposes.

Product Numbers

- JSM96F, JSM96H, JSM96Q
- JSM48
- JSM24F, JSM24H
- JSM06

*bespoke and non cross-linked formats available on request and subject to volume

FEATURES AND BENEFITS

FEATURES	BENEFITS
Innovative	Offers a viable alternative to mammalian and synthetic scaffolds.
Non-mammalian	Highly purified jellyfish collagen alternative providing consistent, repeatable results.
Batch to batch consistency	Offers improved research productivity allowing security of product consistency and reproducible results.
Cross-linked	EDC cross-linked scaffolds for enhanced mechanical and thermal stability, resorbable *in vivo*[1].
Evolutionary ancient collagen demonstrating sequence homology to collagen I and II	Universal applications for multiple cell types and regenerative medicine.
Manufactured according to ISO13485	Follows a quality controlled manufacturing process producing a consistent scaffold.
Uniform pore size	Promotes cell seeding, invasion, proliferation and differentiation. Allows for growth factor permeation and gas exchange ensuring long-term cell survival.
Natural Scaffold	Jellagen® 3D Scaffolds exhibit similar physiological components and properties to the ECM of the *in vivo* micro-environment.

1. Jonathan P. Widdowson, Alex J. Picton, Valerie Vince, Chris J. Wright, Andrew Mearns-Spragg. "In vivo comparison of jellyfish and bovine collagen sponges as prototype medical devices". J Biomed Mater Res B Appl Biomater. 2018 May;106(4):1524-153

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The grade of Jellagen® jellyfish collagen used to manufacture these scaffolds has been tested to verify its applicability for routine cell culture research using human primary and iPSC-derived cell lines. Jellagen® Jellyfish collagen has been shown to promote cellular attachment, proliferation and differentiation to develop functional matrices.

Cell lines that have been cultured successfully on Jellagen® jellyfish include, but are not limited to: Mesenchymal Stem Cells (MSC's), fibroblasts, hepatocytes, endothelial cells, keratinocytes, chondrogenic progenitor cells, Urine Derived Stem Cells (UDC's), cardiomyocytes, ovarian cancer cells, iPSC-derived microglia and HEK293T.

PRODUCT INFORMATION	JELLAGEN® 3D SCAFFOLDS
Format	6, 24, 48 and 96-well scaffolds, cast in plates
Collagen	Jellyfish collagen
Serum level	Serum free
Storage	Store at room temperature
Shelf life	Under evaluation
Plate polymer	Non-tissue culture treated, polystyrene and non-pyrogenic
Colour	White to off-white
Bioburden	Negative
Shipping conditions	Room temperature
pH	Approximately 7.0 – 7.4 when suspended in PBS or tissue culture media

Useful References

- Jonathan P. Widdowson, Alex J. Picton, Valerie Vince, Chris J. Wright, Andrew Mearns-Spragg. "In vivo comparison of jellyfish and bovine collagen sponges as prototype medical devices". J Biomed Mater Res B Appl Biomater. 2018 May;106(4):1524-153
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DISCLAIMER

This product is for R&D use only and is not intended for human or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

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