

Jellagen[®] Research Grade Jellyfish Collagen

Jellagen[®] purified next generation jellyfish collagen for cell culture, tissue engineering and regenerative medicine

PRODUCT DESCRIPTION

Jellagen[®] is a next generation and high purity collagen produced from jellyfish. Jellyfish collagen shares sequence homology with type I, II and V, making jellyfish collagen a universal collagen compatible with a broad range of cell types, for cell line-specific cell culture and regenerative medicine applications.

Product Numbers

- JL10ML-3, JL100ML-3, JL500ML-3, JL1L-3
- JL10ML-6, JL100ML-6, JL500ML-6, JL1L-6
- JD10MG, JD100MG, JD500MG, JD1G

*Bespoke filling volumes and concentrations available upon request and subject to volume

FEATURES AND BENEFITS

FEATURES	BENEFITS
Innovative	Offers a viable alternative to mammalian and synthetic reagents with the below features and benefits.
Non-mammalian	Highly purified jellyfish collagen alternative providing consistent, repeatable results.
Compatible with all existing cell culture protocols	Like-for-like substitute for existing collagens in cell culture offering a matrix that promotes cell adhesion, proliferation and cell functionality.
Batch to batch consistency	Highly purified collagen that offers improved research productivity allowing security of product consistency and reproducible results.
Evolutionary ancient collagen demonstrating sequence homology to collagen I, II and V	Universal applications for multiple cell types and regenerative medicine.
Manufactured according to ISO13485	Follows a quality controlled manufacturing process producing a medical device-grade collagen.
Fibrillogenesis*	Successfully creates hydrogels through fibrillogenesis.

**IMPORTANT: If you are using the material for Fibrillogenesis/Hydrogel applications, state this clearly in the order enquiry or contact us directly.*

The grade of Jellagen® jellyfish collagen used to coat this cultureware has been tested on both mammalian and human primary cells and iPSC-derived cell lines to verify its suitability for routine cell culture research. Jellyfish collagen has been shown to promote cellular attachment, proliferation and differentiation.

Cell lines that have been cultured successfully on Jellagen® jellyfish collagen 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® COATED PLATES
Format	Liquid and Solid
Chemistry	Preserved Triple Helix
Solvent	0.1M Acetic Acid
Concentration	3mg/ml and 6mg/ml
Turbidity / colour	Clear to Opaque liquid / White to off-white powder
Protein content	>90%
pH	2.5 – 3.6
SDS-PAGE	Doublet band at 135-175kDa Single band at 80-110kDa

Useful References

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- Xiaochen Cheng, Ziyu Shao, Chengbo Li, Lejun Yu, Mazhar Ali Raja, and Chenguang Liu "Isolation, Characterization and Evaluation of Collagen from Jellyfish *Rhopilema esculentum* Kishinouye for Use in Hemostatic Applications. *PLoS One*. 2017: 12 (1)
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- Judith Sewing1, Matthias Klinger and Holger Notbohm. "Jellyfish collagen matrices conserve the chondrogenic phenotype in two- and three- dimensional collagen matrices.". *Journal of Tissue Engineering and Regenerative Medicine*. 2015 Research Article.
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- Marion Pugliano, Xavier Vanbellinghen, Pascale Schwinté, Nadia Benkirane-Jesseland Laetitia Keller. "Combined Jellyfish Collagen Type II, Human Stem Cells and Tgf- $\beta3$ as a Therapeutic Implant for Cartilage Repair." *Journal of Stem Cell Research & Therapy*. 2017, 7:4
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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.

