

# Jellagen<sup>®</sup> Coated Plates

Next Generation Jellyfish Collagen Coated Tissue Culture Plates for Improved Results in Promotion of Cell Adhesion, Growth & Differentiation.

## PRODUCT DESCRIPTION

Cultureware plates coated with jellyfish collagen, suitable for cell culture research purposes.

## Product Numbers

- JCP06W
- JCP24W
- JCP96W

\*bespoke formats available on 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	Offers improved research productivity allowing security of product consistency and reproducible results.
Sequence homology to collagen type I	Universal applications for multiple cell types e.g. human primary and stem cell-derived.
Manufactured according to ISO13485	Follows a quality controlled manufacturing process producing a consistent coating on the surface of tissue culture treated plates.
Individually packed	Easy to use and store with a shelf life of 1 year, with unique individually packed plates that help reduce waste.

The grade of Jellagen® jellyfish collagen used to coat this cultureware 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 and proliferation.

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	6, 24 & 96 well plate – flat bottom*
Coating concentration	10µg/cm <sup>2</sup> (+/- 1µg)
Quantity per pack	5
Collagen used	Jellyfish collagen
Storage	Store at room temperature
Serum level	Serum free
Shelf life	24 months from date of manufacture
Plate polymer	Tissue culture treated, polystyrene and non-pyrogenic
Colour	Clear*
Bioburden	Negative
Shipping conditions	Room temperature

\*bespoke formats available on request and subject to volume

#### Useful References

- Sourour Addad, J.Exposito, C.Faye, S.Ricard-Blum, and C. Lethias. "Isolation, Characterization and Biological Evaluation of Jellyfish Collagen for Use in Biomedical Applications". Marine Drugs. 2011; 9(6): 967–983
- 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)
- Seiya Miura and Shigeru Kimura. "Jellyfish Mesogloea Collagen – characterisation of molecules AS  $\alpha 1\alpha 2\alpha 3$  heterotrimers". The Journal of Biological Chemistry. 1985. Vol. 260, No. 28, Issue of December 5, pp. 15352-15356.
- Eun Song, So Yeon Kim, Taehoon Chun, Hyun-Jung Byun, Young Moo Lee. "Collagen scaffolds derived from a marine source and their biocompatibility". Biomaterials 27. 2006. 2951–2961
- 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.
- Birgit Hoyer, Anne Bernhardt, Anja Lode, Sascha Heinemann, Judith Sewing, Matthias Klinger, Holger Notbohm, Michael Gelinsky. "Jellyfish collagen scaffolds for cartilage tissue engineering." Acta Biomaterialia 10.2014. 883–892
- Marion Pugliano, Xavier Vanbellinghen, Pascale Schwinté, Nadia Benkirane-Jesseland Laetitia Keller. "Combined Jellyfish Collagen Type II, Human Stem Cells and Tgf- $\beta 3$  as a Therapeutic Implant for Cartilage Repair." Journal of Stem Cell Research & Therapy. 2017, 7:4
- Ayako Miki, Satomi Inaba, Takayuki Baba, Koji Kihira, Harumi Fukada and Masayuki Oda. "Structural and physical properties of collagen extracted from moon jellyfish under neutral pH conditions". Bioscience, Biotechnology, and Biochemistry, 2015 Vol. 79, No. 10, 1603–1607

## 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.

FRM-87REV01

