

BioLamina website: Links to AppNotes and Instructions

To send as links to customers or collaborators. By application or method.

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1)Quality documents (all products)

Quality certifications, Safety data sheets, Certificates of analysis (CoA)Animal origin free statements: [Quality documents - BioLamina](#)

2)Laminin and ECM biology

Stem cell culture matrices – a practical guide:

[Guide: Stem cell culture matrices - BioLamina](#)

Benefits of the Biolaminin 521 cell culture system:

[Video: Benefits of the Biolaminin 521 cell culture system - BioLamina](#)

Laminin protein information (Product, old synonym, chain composition, gene names): [Instructions: Laminin protein information - BioLamina](#)

Introduction to laminins

Tissue-specific laminins, Derivation and culture of stem cells and primary cells on specific laminins (Karl Tryggvason), Biorelevant laminins (Kristian Tryggvason):

[Videos: Introduction to laminins - BioLamina](#)

3)Product sheets

Biolaminin® 521 grades

Biolaminin® 521 Cell Culture Substrates Support scientists—from discovery all the way to clinic: [BG-006-07 Biolaminin-521-product-sheet-all-products.pdf \(biolamina.com\)](#)

LN521

Biolaminin® 521 stem cell matrix derivation and expansion of pluripotent stem cells: [app-note-ln-521.pdf \(biolamina.com\)](#)

MX521 / CT521

Human ES and iPS cell culture On Biolaminin® 521 cell therapy grade: [AppNote-AN-015-07 CTG-Human-stem-cell-culture-MXCT521.pdf \(biolamina.com\)](#)

Biosilk 3D network

Biosilk 3D biomaterial - more physiological relevant 3D structures for organoid research: [app-note-an-016.pdf \(biolamina.com\)](#)

4) Infographics

Cost infographic

Comparing cost of cell culture on Biolaminins, truncated laminins (E8), EHS extract (Matrigel) and Vitronectin. Biolaminins have the lowest cost/cell, since the average multiplication rate of cells is highest: [cost-infographic.pdf \(biolamina.com\)](#)

5) BioLamina instructions

Biolaminin

Instructions – Coating instructions for Biolaminin

Coating cell cultureware on Biolaminin® substrates:

[IN-001-10_Biolamina-Coating-plates-20240201.pdf](#)

Video - Coating cell cultureware with Biolaminin substrates:

[Video: Coating cultureware with Biolaminin substrates - BioLamina](#)

Instructions – Culture of human ES and iPS cells

Culturing human ES and iPS cells on human recombinant Biolaminin® 521:

[instructions-bl003.pdf \(biolamina.com\)](#)

Video - Single cell ES/iPS cell culture with laminin-521

[Single cell ES/iPS cell culture with laminin-521 \(youtube.com\)](#)

Instructions – Culture of mouse ES and iPS cells

Culturing ES and iPS cells on human recombinant Biolaminin® 511:

[instructions-bl002.pdf \(biolamina.com\)](#)

Instructions – Neural Crest differentiation

Instructions - Neural Crest differentiation from hPSC on Biolaminin® 521:

[IN-004-01_Neural-crest-Instructions.pdf \(biolamina.com\)](#)

Instructions – Weekend-free feeding of hPSC

Weekend-free feeding protocol culture of human pluripotent stem cells on LN521:

[app-note-bl001.pdf \(biolamina.com\)](#)

Instructions – Embryoid body

Embryoid body formation from hPSCs cultured on Biolaminin® 521:

[instructions-bl010.pdf \(biolamina.com\)](#)

Biosilk

Free-floating, 96-well

Instructions - Biosilk® and Biolaminin® free-floating scaffolds in 96-well plate for hPSC culture: [Instructions-IN-012-01-Biosilk-3D-scaffolds-96well-free-floating.pdf](https://www.biolamina.com/instructions-IN-012-01-Biosilk-3D-scaffolds-96well-free-floating.pdf) ([biolamina.com](https://www.biolamina.com))

Attached, 24 well

Biosilk 3D scaffolds – for proliferation and differentiation of hPSC:
[instructions-bl01101.pdf](https://www.biolamina.com/instructions-bl01101.pdf) ([biolamina.com](https://www.biolamina.com))

Video - Generating Biosilk 3D scaffolds for proliferation and differentiation of hPSCs:
[Video: Generating Biosilk 3D scaffolds for proliferation and differentiation of hPSCs - BioLamina](#)

6)Methods

5.1) Gene editing

Efficient gene editing on Biolaminin® 521 substrate:

[AppNote-AN-020-01_Gene-Editing.pdf \(biolamina.com\)](#)

5.2) User format modalities (Scale, Formats)

BioLamina products in research and manufacturing, Biolaminin® matrices for all steps and scale: [App-Note-AN-018-002_BioLamina-products-in-research-and-manufacturing-Modalities.pdf](#)

Large-scale cell production Biolaminin® cell adhesion matrices for cell culture standardization and clinical compliance: [2022-06-01-App-Note-AN-018-001.pdf \(biolamina.com\)](#)

7) Applications – cell type specific

6.1) Application overview (human model of all tissues)

Tissue-specific cell culture matrices. Imitate the natural cell-matrix interactions for improved cell functionality:

[BG-002-7-Applications-infographics.pdf \(biolamina.com\)](#)

6.2) Cancer stem cell

Cancer stem cell culture on human recombinant Biolaminin® substrates:

[app-note-bl01201.pdf \(biolamina.com\)](#)

6.3) Eye

Retinal pigment epithelial (RPE) cells

RPE differentiation on Biolaminin® 521 cell culture substrate:

[app-note-RPE.pdf \(biolamina.com\)](#)

6.4) Liver, Hepatocytes

Hepatic differentiation on human recombinant LN521 and LN111:

[app-note-hepatic.pdf \(biolamina.com\)](#)

6.5) Neural

Neural infographic (overview)

Neural cell culture - Imitate the natural cell-matrix interactions for improved cell functionality: [BG-004-06-Biolamina-neural-infographic-1.pdf](#)

Neural crest

Neural crest differentiation on Biolaminin® 521:

[AppNote AN-021-001-Neural-crest.pdf \(biolamina.com\)](#)

Instructions - Neural Crest differentiation from hPSC on Biolaminin® 521:

[IN-004-01_Neural-crest-Instructions.pdf \(biolamina.com\)](#)

Dopaminergic neurons

Dopamine differentiation on human recombinant Biolaminin® 111:

[app-note-bl01301.pdf \(biolamina.com\)](#)

Brain organoid - Biosilk

Brain organoid modeling to study neural development and disease Functional neural 3D cell constructs using Biosilk-Biolaminin® scaffold:

[AN-019-01-Brain-organoids-with-Biosilk-Biolaminin.pdf \(biolamina.com\)](#)

6.6.) Pancreas

Culture of pancreatic cells differentiation and maintenance on laminin substrates:
app-note-bl003-pancreatic.pdf (biolamina.com)

6.7) Human pluripotent stem cell (hPSC)

LN521 product sheet

Biolaminin® 521 stem cell matrix derivation and expansion of pluripotent stem cells:
app-note-ln-521.pdf (biolamina.com)

MX521 / CT521 product sheet

Human ES and iPS cell culture On Biolaminin® 521 cell therapy grade:
AppNote-AN-015-07_CTG-Human-stem-cell-culture-MXCT521.pdf (biolamina.com)

hPSC culture

Instructions – Culturing human ES and iPS cells on human recombinant Biolaminin® 521: instructions-bl003.pdf (biolamina.com)

Video - Watch as cells grow – culture ES and iPS cells on Biolaminin:
Video: Watch as cells grow - culture ES and iPS cells on Biolaminin - BioLamina

Video - Passaging and culture of human PSC on Biolaminin 521:
Video: Passaging and culture of human PSC on Biolaminin 521 - BioLamina

Video - hPSC transition to Biolaminin 521:
Video: hPSC transition to Biolaminin 521 - BioLamina

6.8) Mouse pluripotent stem cells (mPSC)

LIF-independent mouse PSC culture murine stem cell expansion on LN511 application: app-note-bl002.pdf (biolamina.com)

Instructions – Culturing ES and iPS cells on human recombinant Biolaminin® 511:
instructions-bl002.pdf (biolamina.com)

6.9) Skin

Skin overview

Next generation xeno-free and defined skin cell culture on Biolaminin® 521 (LN521) and Biolaminin 511 (LN511) substrates: AN-023_001_SKIN_OVERVIEW_1201.pdf (biolamina.com)

Keratinocytes

Xeno-free and defined keratinocyte culture On Biolaminin® 521 and Biolaminin 511 substrates: App-Note-AN-017_003_Keratinocyte-culture.pdf (biolamina.com)

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6.10) 3D

Biosilk 3D network product sheet

Biosilk 3D biomaterial - more physiological relevant 3D structures for organoid research: [app-note-an-016.pdf \(biolamina.com\)](https://www.biolamina.com/app-note-an-016.pdf)

Brain organoid - Biosilk

Brain organoid modeling to study neural development and disease Functional neural 3D cell constructs using Biosilk-Biolaminin® scaffold:

[AN-019-01-Brain-organoids-with-Biosilk-Biolaminin.pdf \(biolamina.com\)](https://www.biolamina.com/AN-019-01-Brain-organoids-with-Biosilk-Biolaminin.pdf)

Instructions – Biosilk

Free-floating, 96-well

Instructions - Biosilk® and Biolaminin® free-floating scaffolds in 96-well plate for hPSC culture: [Instructions-IN-012-01-Biosilk-3D-scaffolds-96well-free-floating.pdf \(biolamina.com\)](https://www.biolamina.com/Instructions-IN-012-01-Biosilk-3D-scaffolds-96well-free-floating.pdf)

Attached, 24-well

Biosilk 3D scaffolds – for proliferation and differentiation of hPSC:
[instructions-bl01101.pdf \(biolamina.com\)](https://www.biolamina.com/instructions-bl01101.pdf)

Video - Generating Biosilk 3D scaffolds for proliferation and differentiation of hPSCs:
[Video: Generating Biosilk 3D scaffolds for proliferation and differentiation of hPSCs - BioLamina](https://www.biolamina.com/Video-Generating-Biosilk-3D-scaffolds-for-proliferation-and-differentiation-of-hPSCs-BioLamina)