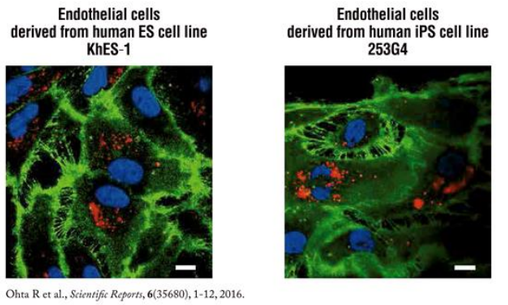
iMatrix-411

iMatrix-411 is the recombinant human Laminin-411 E8 fragment.
After culturing on iMatrix-511 and replacing it to iMatrix-411, endothelial progenitor cells are efficiently induced from pluripotent stem cells.

Features

- Optimized for inducing vascular endothelial cells from human pluripotent stem cells.



Ohta R et al., *Scientific Reports*, 6(35680), 1-12, 2016.

Phenotypes of endothelial cells induced from pluripotent stem cells on iMatrix-411 coated plate.
Acetyl-LDL uptake (Red), CD31 (Green) expression and nuclear stainiing (Blue).
Scale bar : 10 μm

Reference (example)

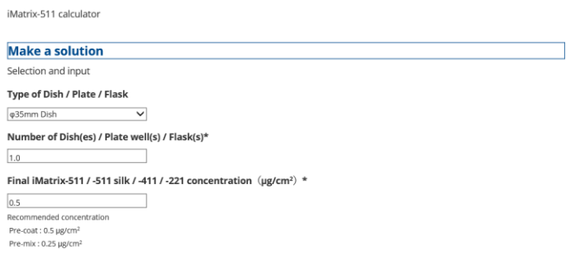
Ohta *et al.*, Laminin-guided highly efficient endothelial commitment from human pluripotent stem cells
Scientific. Reports., **6**, 35680, (2016)

Product Information

[Manufacturer : MAX]

Product Name	Code	Size	Storage
iMatrix-411	892041	2 x 175 μg	4℃
	892042	6 x 175 μg	

How much volume of iMatrix is required in my culture?
No worries! Visit
http://www.matrixome.co.jp/en/products/imatrix-511
and use helpful calculator!



NOTE
※ All products here are research use only, not for diagnostic use.
※ Specs might be changed for improvement without notice.
※ Numbers after "#" represents product code.
※ Company name and product name are trademark or registered mark.
※ Please contact your local distributors for orders, quote request and inquiry.

Your Local Distributor

Funakoshi Co., Ltd.
Address: 9-7 Hongo 2-Chome, Bunkyo-ku,
Tokyo 113-0033 JAPAN
Phone : +81-3-5684-6296
Fax : +81-3-5684-6297
Email : export@funakoshi.co.jp

MAX-2001-F13 (2020.01)

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MATRIXOME

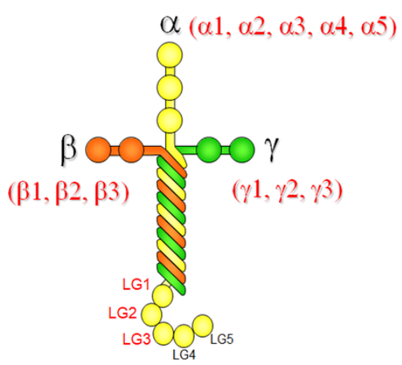
Best cell culture substrate from laminin

iMatrix

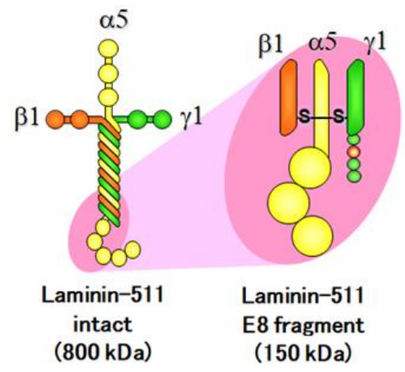
iMatrix series are recombinant human laminin fragment products, optimized as a cell culture substrate (coating material).

Laminin is;
(1) One of the extra cellular matrices (ECMs) located in the basement membrane of animals.
(2) Types in the basement membrane differ significantly from one cell type to another.
(3) Plays an important role for cell growth, motility and differentiation through integrins.
(4) Composed of three chains; α-, β-, and γ- chain and 15 types of laminin isoforms are already known.

iMatrix is the purified E8 fragment in α-chain of laminins, which has integrin binding ability. Depending on cultured cell types, 3 types of iMatrix (-511, -221 and -411) are available as an optimized product.



	α	β	γ
Laminin-111	α1	β1	γ1
Laminin-211	α2	β1	γ1
Laminin-121	α1	β2	γ1
Laminin-221	α2	β2	γ1
Laminin-332	α3	β3	γ2
Laminin-311	α3	β1	γ1
Laminin-321	α3	β2	γ1
Laminin-411	α4	β1	γ1
Laminin-421	α4	β2	γ1
Laminin-511	α5	β1	γ1
Laminin-521	α5	β2	γ1
Laminin-213	α2	β1	γ3



iMatrix-511　iMatrix-511 silk

iMatrix-511 is the recombinant human Laminin-511 E8 fragment, produced by CHO-S cells (iMatrix-511) or transgenic silkworm cocoon (iMatrix-511 silk).iMatrix-511 is very useful for iPS / ES cells as cell culture substrate.

Features

- Optimized for ES / iPS cell culture but also works for various cells.
- High cell viability
- Feeder-free culture
- No ROCK inhibitor is required in replacing medium except for passaging
- Easy to use, solution format (0.5 mg / mL)

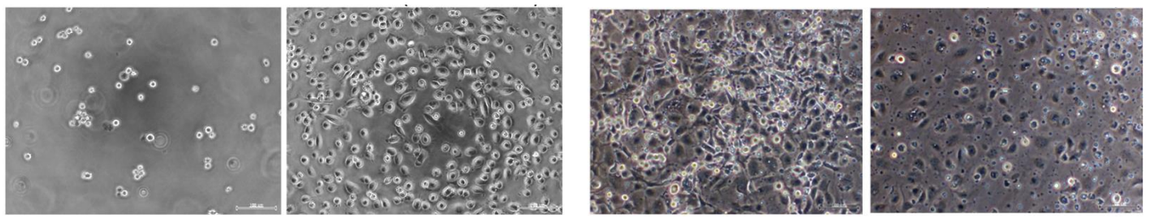
Example Data

(A) Epidermal Cells, 0.5 h culture

Non-coat　iMatrix-511

(B) Vascular Endothelial Cells, 1.0 h culture

Non-coat　iMatrix-511



Human Epidermal Cells (A) and Vascular Endothelial Cells (B) were cultured on iMartix-511.
More efficient adhesion and extension can be observed when cultured on iMatrix-511.

Reference (examples)

Ayabe, H. *et al.*, Optimal Hypoxia Regulates Human iPSC-Derived Liver Bud Differentiation through Intercellular TGFB Signaling.
Stem Cell Reports, **11**, 1-11, (2018)

Musah, S. *et al.*, Directed differentiation of human induced pluripotent stem cells into mature kidney podocytes and establishment of a lomerulus Chip.
Nature protocols, **13**(7), 1662, (2018)

Product Information

[Manufacturer : MAX]

Product Name	Code	Size	Storage
iMatrix-511	892011	2 x 175 µg	4℃
	892012	6 x 175 µg	

Product Name	Code	Size	Storage
iMatrix-511 silk	892021	6 x 175 µg	4℃

Easy iMatrix-511

Easy iMatrix-511 and Easy iMatrix-511 silk are ready to use format of iMatrix-511 or iMatrix-511 silk.
No dilution step and laborious calculation of concentration are required.

Product Information

[Manufacturer : MAX]

Product Name	Code	Size	Storage
Easy iMatrix-511	892018	100 mL	4℃

Product Name	Code	Size	Storage
Easy iMatrix-511 silk	892024	100 mL	4℃

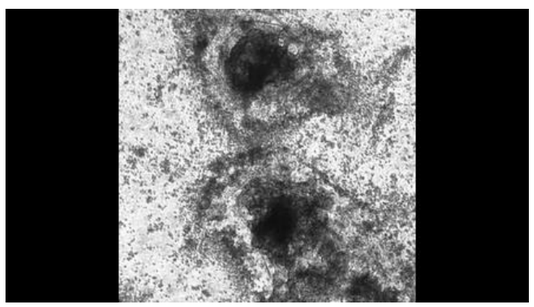
More Information of
iMatrix-511 / iMatrix-511 silk :
https://www.funakoshi.co.jp/exports_contents/**46137**
Easy iMatrix-511 :
https://www.funakoshi.co.jp/exports_contents/**81116**

iMatrix-221

iMatrix-221 is the recombinant human Laminin-221 E8 fragment.
Laminin 221 is known to bind to integrin α7X2β1 protein, which is selectively expressed in muscle tissue, especially in cardiac and skeletal muscle cells.

Features

- Optimized for enrichment and maintenance of cardiomyocytes.



See the movie of differentiated cardiomyocytes pulsating on iMatrix-221 at:
https://youtu.be/nk5nxPvVM5o

Product Information

[Manufacturer : MAX]

Product Name	Code	Size	Storage
iMatrix-221	892061	2 x 175 µg	4℃
	892062	6 x 175 µg	