



## Product Details

Human Laminin 511 Protein, premium grade (Mix & Scale) is a recombinant human laminin 511 E8 (LN511-E8) protein that provides a defined surface for in vitro feeder-free culture of multiple human pluripotent stem cells (PSCs).

As published by Takamichi Miyazaki et al., the LN511-E8 variant of laminin 511 shows higher efficiency for supporting the adhesion of dissociated cells than did wild-type laminin 511 which makes it a cost-effective choice.

LN511-E8 has been proven to maintain normal growth characteristics and stemness in multiple PSC lines without simultaneous differentiation, which includes ESC, iPSC, MSC, etc. In addition, LN511-E8 has been demonstrated to support PSC growth for > 10 passages without any signs of karyotypic abnormalities and to maintain the ability of PSCs to differentiate into all three germ line lineages.

*Importantly, our innovative laminin 511 protein (Mix & Scale) could meanwhile support pre-coating method and suspension method (directly mixing the protein with cell suspensions without coating plates).*

*No coating steps are needed and easy scale-up*

Simplified operation and support automated manufacturing at a large scale.

### Cost-effective

Significant cost reduction compared to classic coating method.

### Stemness maintenance

No spontaneous differentiation is observed after several passages of hPSC culture.

### Lot-to-lot consistency

Produced from a stable cell line, robust purification process, and stringent QC.

### Ready to scale supply

A new cGMP-compliant facility is ready and supports large scale manufacturing supply.

## Key parameter

Purity (SDS PAGE)	> 95%
Mycoplasma Test	Negative
Sterility Test	Negative
Integrin Binding Assay	1.00 nM < KD < 30.0 nM
Endotoxin Test	< 0.01 EU per µg
Host Cell Protein	< 0.5 ng/µg
Host Cell DNA	< 0.02 ng/µg

## Formulation

Supplied as 0.2 µm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

## Shipping

*This product is supplied and shipped with dry ice, please inquire the shipping cost.*

## Storage

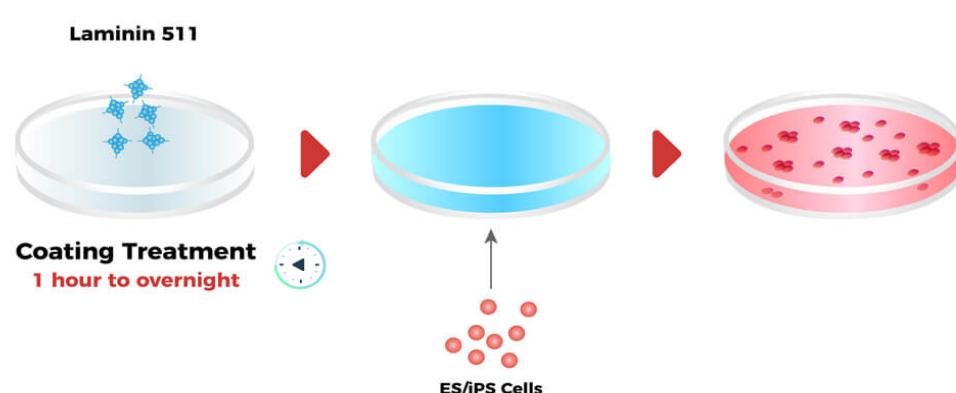
For long term storage, the product should be stored at liquid state at -20°C or below.

*Please avoid repeated freeze-thaw cycles.*

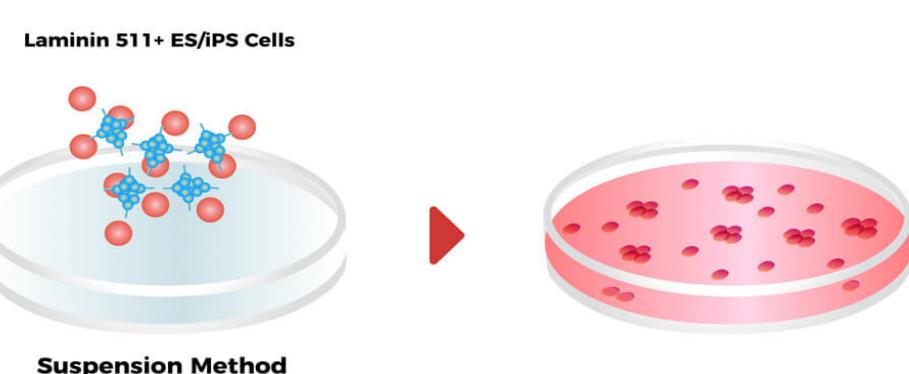
This product is stable after storage at:

- 2-8°C for 6 months under sterile conditions;
- -20°C or below for 3 years.

## The schematic diagram of Laminin in ES/iPS cell culture



[Download Pre-coating Method Protocol](#)



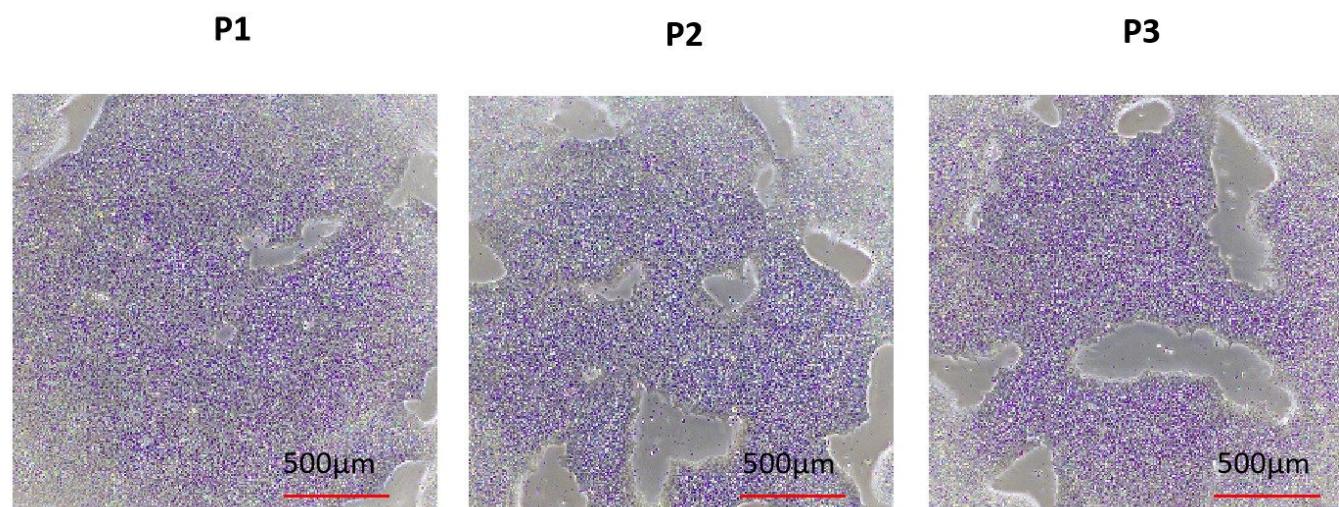
[Download Suspension Method Protocol](#)

## Bioactivity-Stem Cell Culture

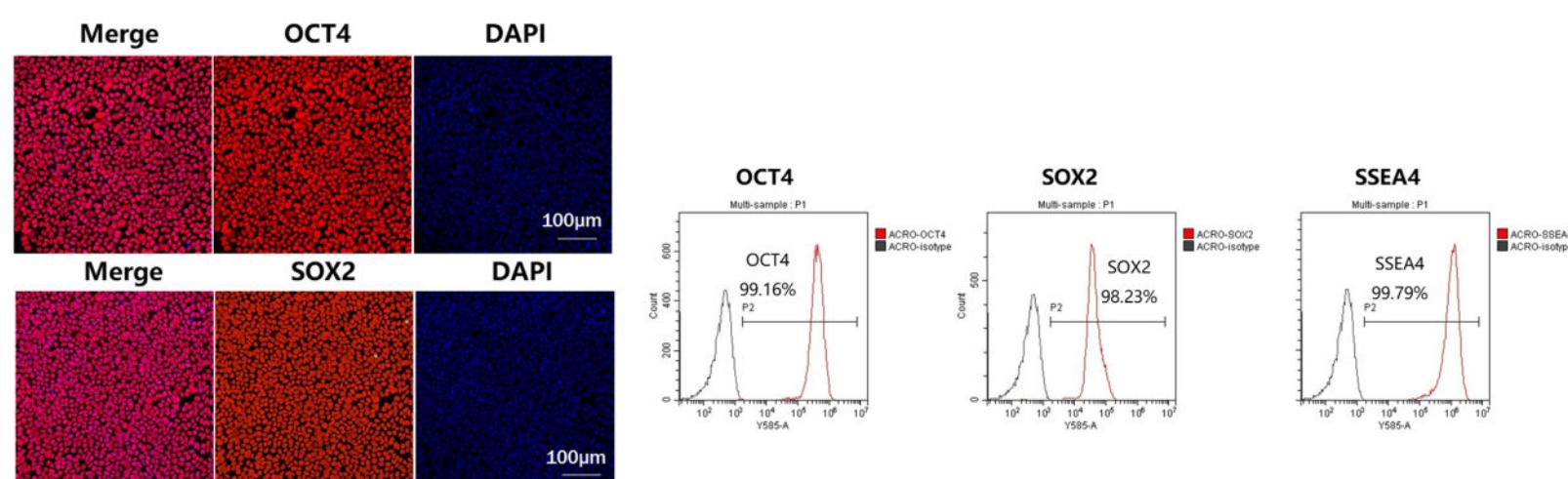
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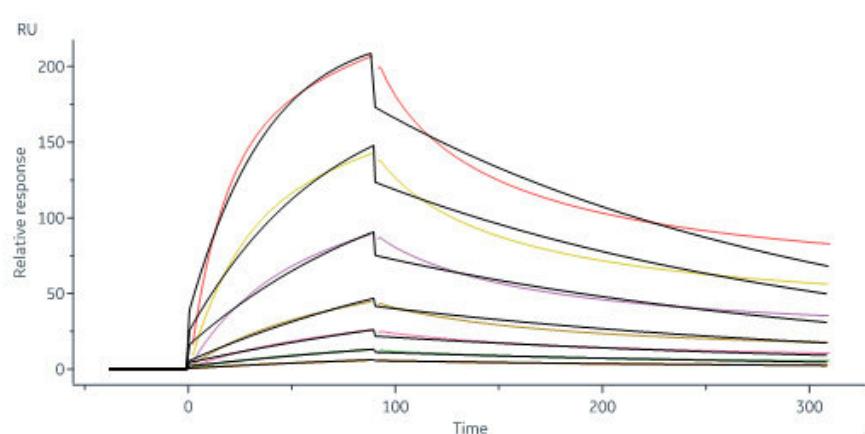


Robust, homologous, monolayer expansion of hPSCs on Human Laminin 511 Protein, premium grade ((Mix & Scale) (Cat. No. LA1-H5314).



hPSCs cultured on Human Laminin 511 Protein, premium grade ((Mix & Scale) (Cat. No. LA1-H5314) maintain pluripotency, exhibiting high expression of OCT4, SOX2, and SSEA4 as confirmed by FACS and immunofluorescent staining.

#### Bioactivity-SPR



Human Laminin 511 Protein, premium grade (Mix & Scale) (Cat. No. LA1-H5314) immobilized on CM5 Chip can bind Human ITGA6&ITGB1 Heterodimer Protein, His Tag&Tag Free (Cat. No. IT1-H52W7) with an affinity constant between 1.00 nM - 30.0 nM determined in a SPR assay (Biacore 8K) (QC tested).

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