

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

Half of the amount (*0.25 µg/cm2*) is used in the coating method and saves money.

Stemness maintenance

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

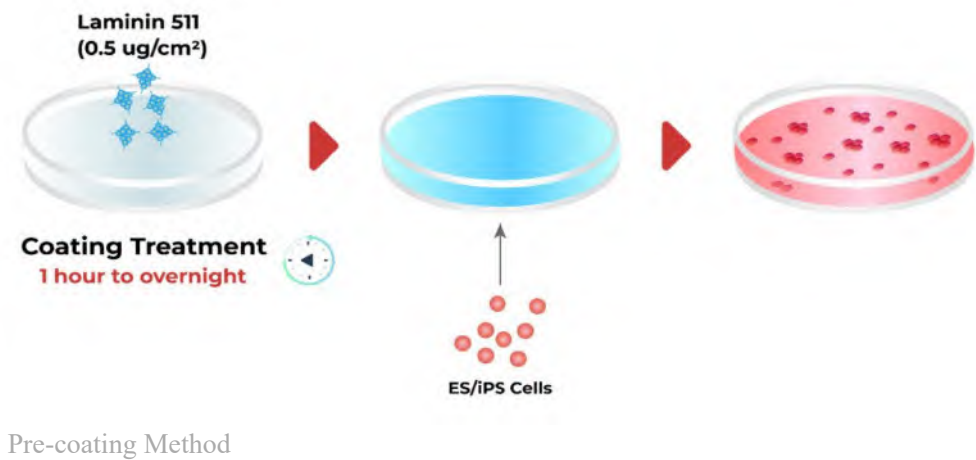
Lot-to-lot consistency

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 manufacutring supply.

The schematic diagram of Laminin 511 (Mix & Scale) in ES/iPS cell culture.



Key parameter

Purity (SDS PAGE)	> 95%
Mycoplasma Test	Negative
Sterility Test	Negative
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.

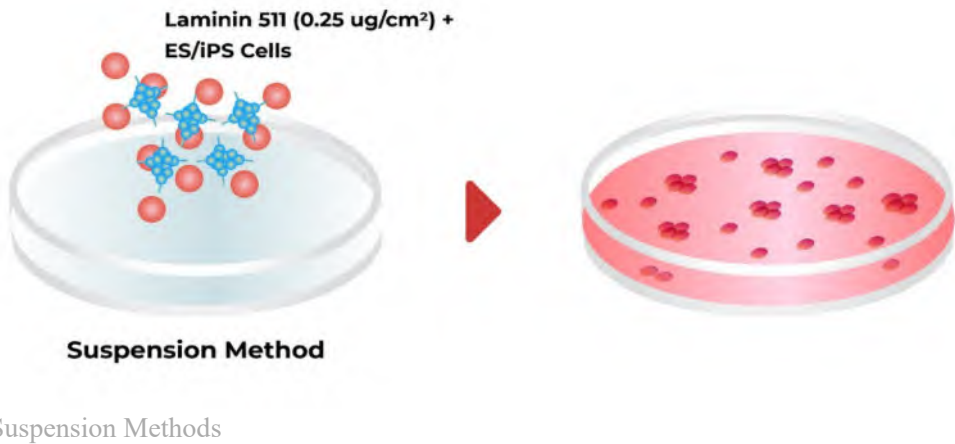
Storage

For long term storage, the product should be stored at liquid state at -70°C.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

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

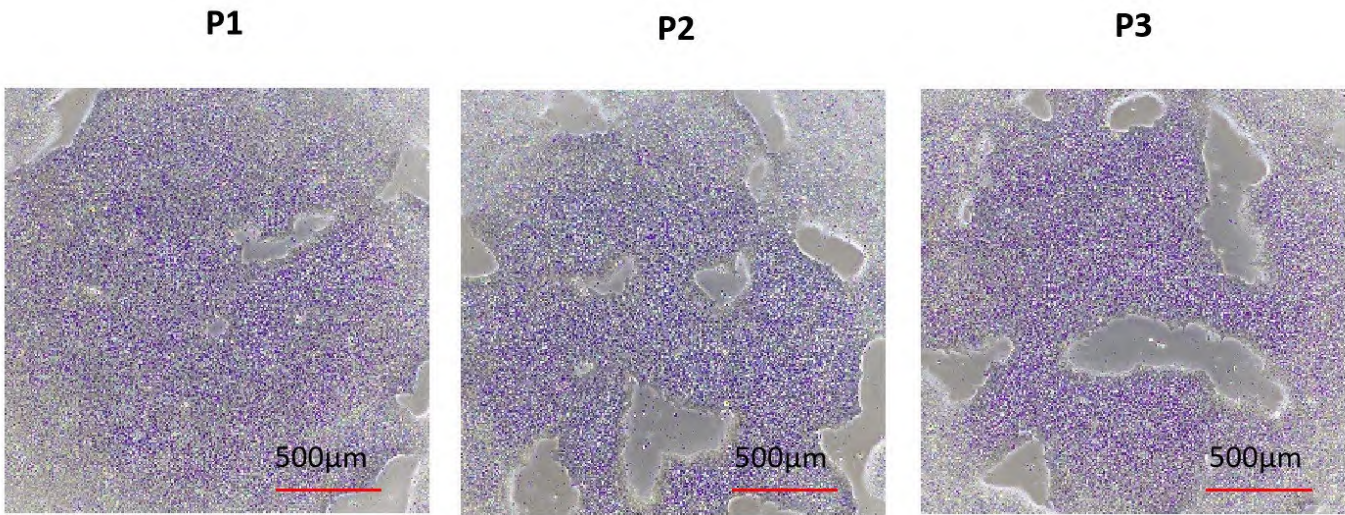


Application Data

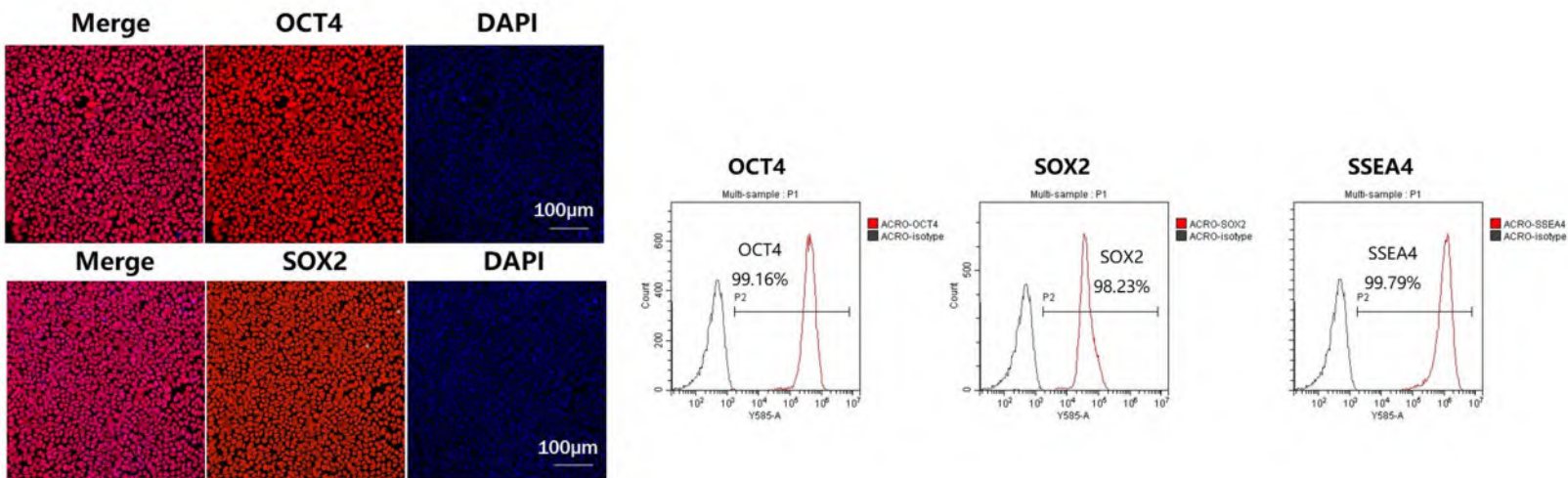


Human Laminin 511 Protein, premium grade (Mix & Scale)

Catalog # LA1-H5314

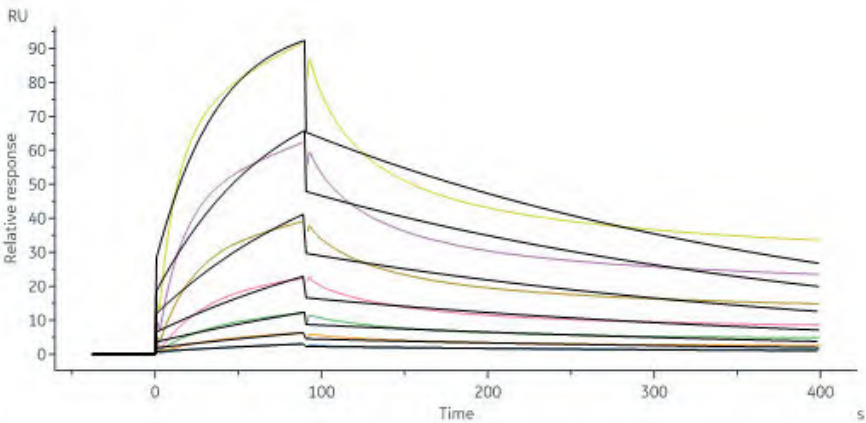


Robust, homologous, monolayer expansion of single cell hPSCs on Human Laminin 511 Protein, premium grade ((Mix &Scale) (Cat. No. LA1-H5314).



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 of 5.73 nM as determined in a SPR assay (Biacore 8K) (QC tested).

Clinical and Translational Updates

