

iMatrix-511

Substrate for cell culture

iMatrix-511 is recombinant Laminin511-E8 fragments.

Instructions



Laminin-511 E8 fragments

- 1) Dilute the solution with PBS (-).
Coat dishes with $0.5 \mu\text{g}/\text{cm}^2$.
- 2) Allow the protein to bind for 3 h at room temperature.
- 3) Remove excess fluid from the coated surface.
- 4) Immediately plate the cells at desired density.

iMatrix-511 is a suitable substrate for ES/iPS cells. iMatrix-511 allows for the survival and xeno-free long-term single-cell passaging of ES/iPS cells.

REFERENCES

- Ido H et al. The requirement of the glutamic acid residue at the third position from the carboxyl termini of the laminin gamma chains in integrin binding by laminins. *J. Biol. Chem.* **282** (15): 11144-54, 2007
- Taniguchi Y et al. The C-terminal region of laminin beta chains modulates the integrin binding affinities of laminins. *J. Biol. Chem.* **284** (12): 7820-31, 2009
- Miyazaki T et al. Laminin E8 fragments support efficient adhesion and expansion of dissociated human pluripotent stem cells. *Nat. Commun.* **3**: 1236, 2012
- Nakagawa M et al. A novel efficient feeder-free culture system for the derivation of human induced pluripotent stem cells. *Sci. Rep.* **4**: 3594, 2014
- Doi D et al. Isolation of Human Induced Pluripotent Stem Cell-Derived Dopaminergic Progenitors by Cell Sorting for Successful Transplantation. *Stem Cell Reports.* **2** (3): 337-50, 2014
- Takashima Y et al. Resetting Transcription Factor Control Circuitry toward Ground-State Pluripotency in Human. *Cell.* **158** (6): 1254-69, 2014
- Fukuta M et al. Derivation of mesenchymal stromal cells from pluripotent stem cells through a neural crest lineage using small molecule compounds with defined media. *PLoS One.* **9** (12) : e112291, 2014
- Burridge PW et al. Chemically defined generation of human cardiomyocytes. *Nat. Methods.* **11**: 855-60, 2014
- Okumura N et al. Laminin-511 and -521 Enable Efficient In Vitro Expansion of Human Corneal Endothelial Cells. *Invest Ophthalmol Vis Sci.* **56** (5), 2933-42, 2015
- Sasaki K et al. Robust In Vitro Induction of Human Germ Cell Fate from Pluripotent Stem Cells. *Cell Stem Cell.* **17** (2), 178-94, 2015
- Hayashi R et al. Co-ordinated ocular development from human iPS cells and recovery of corneal function. *Nature* **531**, 367-80, 2016
- Matsuno K et al., Redefining definitive endoderm subtypes by robust induction of human induced pluripotent stemcells *Differentiation* 2016.04.002
- Nishimura K et al., Estradiol Facilitates Functional Integration of iPSC-Derived Dopaminergic Neurons into Striatal Neuronal Circuits via Activation of Integrin $\alpha 5\beta 1$, *Stem Cell Reports* **6** (4) 511–524, 2016
- Takayama K et al., Laminin 411 and 511 promote the cholangiocyte differentiation of human induced pluripotent stem cells, *Biochemical and Biophysical Research Communications* **474** (1): 91-96, 2016

	Product No.	Contents
iMatrix-511	892 011	350 μg (500 $\mu\text{g}/\text{mL}$) : 175 $\mu\text{g} \times 2$ pcs.
	892 012	1,050 μg (500 $\mu\text{g}/\text{mL}$) : 175 $\mu\text{g} \times 6$ pcs.

You can coat more than 35 6-well plates with 1 mg iMatrix-511 for normal use.

Manufactured by

Nippi, incorporated

1-1-1 Senjumidori-cho, Adachi-ku, Tokyo 120-8601, JAPAN
 PHONE: +81-3-3888-5184. FAX: +81-3-3888-5136
 E-mail: protein-info@nippi-inc.co.jp

Distributor

MATRIXOME, Inc.

3-2 Yamadaoka, Suita-shi, Osaka 565-0871, JAPAN
 Institute for Protein Research, Osaka University

PHONE: +81-6-6877-0222. E-mail: info@matrixome.co.jp