

Protocol: nippi iMatrix-511 Cell Culture Substrate use with Stemgent® StemRNA™-NM Reprogramming Kit and Stemgent NutriStem™ XF/FF Culture Medium

Overview

This protocol describes the use of iMatrix-511, a xeno-free laminin-511 E8 fragment product that can be used as an embryonic stem (ES) cell or induced pluripotent stem (iPS) cell maintenance substrate in combination with Stemgent's NutriStem XF/FF medium, or for reprogramming primary cells such as human fibroblasts, blood-derived endothelial progenitor cells (EPCs) and urine-derived epithelial cells (UDCs) into iPS cells using Stemgent's StemRNA-NM Reprogramming Kit (#00-0076).

Abbreviations

PBS	Phosphate-buffered saline
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Products

Cat. No.	Description
NP892-011	iMatrix-511, 350 µg (2 vials x 175 µg)
NP892-012	iMatrix-511, 1050 µg (6 vials x 175 µg)
01-0005	NutriStem XF/FF Culture Medium for Human iPS and ES Cells
00-0076	Stemgent StemRNA-NM Reprogramming Kit

Storage

- Store iMatrix-511 at 4 °C.
- Protect from light.
- Expiration date is shown on the label.

Protocol

1. Dilute 0.5mg/mL iMatrix-511 stock solution to 2.4µg/mL in 1 mL of sterile PBS/6-well.
2. Coat with 1 mL per 6-well of 2.4 µg/mL iMatrix-511 substrate (diluted in PBS) on an appropriate number of wells of a 6-well plate
3. **For example**, for one well of a 6-well plate (9.6 cm²/well) add 4.8 µL of iMatrix-511 (2.4 µg) in 0.99 mL of PBS.
4. Incubate for 1 hour at 37 °C, 3 hours at room temperature, or overnight at 4 °C.
5. Remove remaining fluid from the coated surface. No rinse is needed.
6. Immediately plate the cells at the desired density.

Notes:

- Do not allow the plate to dry.
- Briefly spin down all liquid in the tube before use.



Usage

Cat. No.	Description	Approximate Usage (6-well)
NP892011	iMatrix-511, 350 µg (2 vials x 175 µg)	145 wells
NP892012	iMatrix-511, 1050 µg (6 vials x 175 µg)	435 wells

Regulatory Disclaimer

For research use only, and not for use in diagnostic procedures.

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