



Sep 06, 2022

# Coating plates

In 1 collection

Hanqin Li<sup>1</sup>, Oriol Busquets<sup>2</sup>, Steven Poser<sup>2</sup>, Dirk Hockemeyer<sup>1</sup>, Frank Soldner<sup>2</sup>

<sup>1</sup>University of California, Berkeley; <sup>2</sup>Albert Einstein College of Medicine



dx.doi.org/10.17504/protocols.io.b4k4quyw



#### **ABSTRACT**

This protocol describes the process of coating plates using either VTN, Matrigel or Geltrex for use in culturing of feeder-free human pluripotent stem cells (hPSCs)

#### **Protocol overview**

Coating plates

- A. VTN
- B. Matrigel
- C. Geltrex

#### **General Notes:**

 Throughout this protocol, the term hPSC is used to collectively refer to both hiPSCs and hESCs. All described procedures have been tested and work equally well for hiPSCs and hESCs.

DOI

dx.doi.org/10.17504/protocols.io.b4k4quyw

PROTOCOL CITATION

Hanqin Li, Oriol Busquets, Steven Poser, Dirk Hockemeyer, Frank Soldner 2022. Coating plates . **protocols.io** 

https://dx.doi.org/10.17504/protocols.io.b4k4quyw

FUNDERS ACKNOWLEDGEMENT

Aligning Science Across Parkinson's

Grant ID: ASAP-000486



1

### Feeder-free culturing of hPSCs

**KEYWORDS** 

**ASAPCRN** 

**LICENSE** 

This is an open access protocol distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited

**CREATED** 

Feb 02, 2022

LAST MODIFIED

Sep 06, 2022

PROTOCOL INTEGER ID

57724

PARENT PROTOCOLS

Part of collection

Feeder-free culturing of hPSCs

MATERIALS TEXT

Item	Vendor	Catalog #
DMEM/F12	Thermo	11320082
	Fisher	
DPBS w/o	Corning	MT21031CV
Calcium and magnesium (DPBS)		
Vitronectin	Thermo	A14700
(VTN-N) Recombinant Human	Fisher	
Protein, Truncated		
Matrigel	Corning	CV40234
Geltrex	Fisher	A1413302
	Scientific	

A. VTN 1h

Thaw aliquoted VTN & On ice. Each 6-well plate needs 60 µl VTN.

protocols.io

1

2

2	For each well of 6-well plate, dilute 10 $\mu l$ VTN in 1 ml pre-chilled DPBS.
3	Add the diluted VTN to each well, shake and tilt the plate so the VTN solution covers the entire well.
4	Incubate in a § 37 °C incubator for © 01:00:00
B. Matri	igel 1h
5	Thaw sufficient Matrigel 8 On ice to coat plates (100 µl Matrigel/6-well plate)
6	Pipet 100 μl Matrigel into 6 ml cold DMEM/F12
7	Quickly transfer 1 ml/well of diluted Matrigel to 6-well plate.
8	Distribute Matrigel evenly across the surface.

9 Incubate plates at § 37 °C for © 01:00:00

1h

Any plates not immediately used can be sealed with Parafilm and stored at § 4 °C for 2 weeks.

Remove excess Matrigel and wash with DPBS.

protocols.io

3

1	$\sim$
	11
- 1	

11 Immediately plate cells at the desired density.

## C. Geltrex 1h

- 12 Thaw sufficient Geltrex on ice to coat plates (120 μl/6-well plate)
- 13 Dilute Geltrex 1:50 with cold DMEM/F12 (120 µl Geltrex into 6 ml DMEM/F12)
- 14 Quickly transfer 1 ml/well of diluted Geltrex to 6-well plate.
- 15 Distribute Geltrex evenly across the surface.
- 16 Incubate plates at **§ 37 °C** for **© 01:00:00**
- 17 Remove excess liquid from the Geltrex coated plate.
- 18 Immediately plate cells at the desired density.

1h