MatriClone™ Growth Matrix for iPSCs

Product Codes: RS-2100, 2x175µg vials / RS-2101, 6x175µg vials

Description:

MatriClone™ is a xeno-free, recombinant Laminin-511 E8 fragment produced in CHO-S cells which is designed to support the early growth of Induced Pluripotent Stem Cells (iPSCs). MatriClone can be used throughout the development of new cell therapies, from early passaging through to cloning and expansion. The matrix is suitable for automated imaging and can be used either in-solution, or to pre-coat plates. To seed single cell iPSCs using Advanced Instruments VIPS® PRO, MatriClone must be used in-solution.

Product Information:

Intended Use:	FOR RESEARCH USE ONLY. NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES.
Concentration:	0.5 mg/mL
Form:	Liquid solution (solvent: PBS(-))
Storage Instructions:	Store at 4°C and protect from light exposure.
Shelf-Life:	MatriClone is stable for 2 years from the date of manufacture (see Certificates of Analysis on our website - https://www.aicompanies.com/support/certificates-of-analysis/).

Instructions for Use:

MatriClone is a soluble matrix, allowing it to be used both in-solution and to pre-coat plates. The term 'in-solution' refers to adding the matrix to the culture media, at the same time as the cells during cell passaging.

The optimum coating density for both in-solution and pre-coating methods may differ depending on the cell line, application, and medium selected. Insufficient coating density may result in the detachment of cells while excessive coating may lead to difficulty lifting cells during passaging.

In-solution Method:

The standard optimum coating density for MatriClone when used in-solution is 0.25µg/cm^2, however this can vary between 0.1 and 1.5µg/cm^2.

1) Add MatriClone to the cell suspension before seeding into a tissue culture treated vessel. Example: To coat a 6-well plate (9.6 cm^2/well) with 0.25µg/cm^2, 4.8µL of MatriClone is required per well. To coat all 6 wells, add 28.8µL of MatriClone to 12mL of cell suspension before seeding 2mL of cell suspension with MatriClone into each well.
2) Gently rock the plate from side to side and back and forth to evenly distribute the cells before placing the plate in the incubator.

Pre-coating Method:

The standard optimum coating density for MatriClone when used to pre-coat is 0.5µg/cm^2, however this can vary between 0.1 and 1.5µg/cm^2.

1) Dilute MatriClone with PBS and use immediately to coat a tissue culture treated vessel. Example: To coat a 6-well plate (9.6 cm^2/well) with 0.5µg/cm^2, 9.6µL of MatriClone is required per well. To coat all 6 wells, add 57µL of MatriClone to 12mL of PBS before seeding 2mL of PBS with MatriClone into each well.
2) Allow the plate to incubate either at 37°C for 1 hour, at room temperature for 3 hours, or at 4°C overnight.
3) Aspirate the PBS then immediately seed your cells. It is important that the coated surface does not dry out between removal of PBS and the addition of the cell suspension.
4) Gently rock the plate from side to side and back and forth to evenly distribute the cells before placing the plate in the incubator.

For help calculating the volume of MatriClone required for other vessel sizes, please see our MatriClone calculator located on our website (https://www.aicompanies.com/single-cell-seeder/matriclone-ipsc-matrix/). Alternatively, please contact your local representative, or contact reagentsupport@aicompanies.com.