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Preparation of PEI for primary coating of MaxOne (neuronal cultures)

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Yonatan Katz¹

¹Weizmann Institute



Yonatan Katz

Weizmann Institute

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Protocol status: In development

We are still developing and optimizing this protocol

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Abstract

Polyethyleneimine (PEI) coating to enhance cell adhesion on MaxOne chips. PEI coating is followed by Laminin coating.

Protocol materials



Pierce & Warriner; 20X Borate Buffer **Thermo Fisher Catalog #28341**



Poly(ethyleneimine) solution **Merck MilliporeSigma (Sigma-Aldrich) Catalog #P3143**



Materials

- 1  Pierce & Warriner; 20X Borate Buffer Thermo Fisher Catalog #28341
 Poly(ethyleneimine) solution Merck MilliporeSigma (Sigma-Aldrich) Catalog #P3143

0.07% PEI solution preparation - Primary coating

30m

- 2 Prepare 100 mL of 1X borate buffer:

 5 mL 20X borate buffer 95 mL sterile deionized water

- 3 **7% PEI stock solution:**

 1.4 mL 50% = PEI solution directly into a sterile beaker. 8.6 mL 1X borate buffer into the sterile beaker.

30m

Mix  00:30:00 using a magnetic stirrer until fully dissolved
(can be stored in 0.5 mL aliquots at -20°C for 1 month).
Where is it sterilized? -

- 4 final **0.07% PEI solution**

 0.5 mL 7% PEI solution in 49.5 mL 1X borate buffer fresh

filter through a 0.22 µm filter unit before use!