VERSION 1

MAY 14, 2018

OPEN ACCESS

DOI:

dx.doi.org/10.17504/protocols.io.p4zdqx6

Protocol Citation: Inbal nussbaum, Daniella Schatz 2018. NEPA electroporation of *Emiliana huxleyi* cells.

protocols.io

<https://dx.doi.org/10.17504/protocols.io.p4zdqx6>

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

Protocol status: Working

We use this protocol in our group for introducing proteins and DNA into *E. huxleyi* cells

Created: May 14, 2018

Last Modified: May 14, 2018

PROTOCOL integer ID:
12153

NEPA electroporation of *Emiliana huxleyi* cells V.1

Inbal

nussbaum¹, Daniella Schatz¹

¹Weizmann Institute of Science

Protist Research to Optimize Tools in Genetics (PROT-G)

Daniella Schatz

ABSTRACT

We used the NEPA electroportor to transform *Emiliana huxleyi* cells.

We were able to establish that this method can be used to introduce proteins into the cells.

- 1 Collect exponentially growing *E. huxleyi* cells by centrifugation at 3000 g for 3 min, room temp.
- 2 Wash the cells once and resuspended with 384mM Sorbitol to a final concentration of ~10⁸ cells/ml.
- 3 Mix 150 ul of cells with 1–10 mg of (linearized) plasmid and transfer to an electroporation cuvette with 0.2 cm gap.
- 4 Electroporate with optimal conditions – we used 7 poring pulses of 250V, followed by transfer 10 +/- transfer pulses.
- 5 After electroporation, transfer IMMEDIATELY into 4 mL of fresh media and incubate to allow recovery in nonselective medium in the growth room, low light for 16–20 h.
- 6 Apply selection and cross your fingers...