



Gene Pulser® Electroprotocols

* We recommend adapting this protocol to use the Gene Pulser electroporation buffer (catalog #165-2676, 165-2677), which increases cell viability and transfection efficiency in mammalian cell lines.

Cell Type Mammalian, adherent, suspension
Species Used Human, HeLa, epithelial carcinoma

Molecules Electroporated DNA: plasmid

Before the Pulse

Cell growth medium Not given

Growth phase at harvest 50 to 80%

Pre-pulse incubation Ice, 10 minutes

Wash solution Not given

The Pulse

Electroporation Temperature Room temperature
Electroporation Medium* Phosphate Buffered Saline

Instruments Used Not given

Cell Density 1 x 10⁽⁷⁾ cells / ml

Cuvette Gap 0.4 cm

Volume of Cells 800 µl

Voltage 0.25 kV

DNA Concentration 1 µg / ml

Field Strength 0.625 kV/cm

DNA Resuspension Buffer TE Buffer (10 mM Tris, 1 mM EDTA)

Capacitor 960 µF

Volume of DNA 5 µl

Resistor (Pulse Controller) none Ω

Time Constant 18 to 22 msec

After the Pulse

Outgrowth Medium Not given

Relevant Publications and/or Comments

Note: exponential values designated in parentheses.
PBS: 1x = 8g NaCl, 0.2g KCl, 0.2g KH₂PO₄, 1.15g Na₂HPO₄

Outgrowth Temperature Not given

Length of Incubation Not given

Selection Method or Assay Used Not given

Electroporation Efficiency Not given

Per Cent Survival Not given

Name of Submitter
Institution Address

Telephone Number

Fax Number

Date Submitted 3/25/91

Survey Number 095