



# 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  
**Species Used** Mouse cells, unspecified

**Molecules Electroporated** DNA: circular

## Before the Pulse

**Cell growth medium** DMEM

**Growth phase at harvest** Log phase

**Pre-pulse incubation** Not given

**Wash solution** Phosphate Buffered Saline

## The Pulse

**Electroporation Temperature** Room temperature

**Instruments Used** Gene Pulser® apparatus

**Electroporation Medium\*** Not given

**Cuvette Gap** 0.4 cm

**Cell Density** 10 (8) cells /250 µl

**Voltage** 0.40 kV

**Volume of Cells** 250 µl

**Field Strength** 1.0 kV/cm

**DNA Concentration** 20 µg

**Capacitor** 25 µF

**DNA Resuspension Buffer** Phosphate Buffered Saline

**Resistor** (Pulse Controller) Ω none

**Volume of DNA** 250 µl

**Time Constant** 1.2 msec

## After the Pulse

**Outgrowth Medium** DMEM

### Relevant Publications and/or Comments

**Note:** exponential values designated in parentheses. Electroporation efficiencies may be enhanced by use of the Capacitance Extender (provides longer time constants).

**Outgrowth Temperature** 37 °C

**Length of Incubation** 48 hours

**Selection Method or Assay Used** CAT assay

**Electroporation Efficiency** Not known

**Per Cent Survival** 20 to 50 %

**Name of Submitter**  
**Institution Address**

**Telephone Number**

**Fax Number**

**Date Submitted** 4/8/91

**Survey Number** 146

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