



## Gene Pulser® Electroprotocols

**Cell Type** Bacterial, gram negative  
**Species Used** *E. coli*, unspecified strain

**Molecules Electroported** DNA: pUC 18, including cDNA

### Before the Pulse

**Cell growth medium** LB

**Growth phase at harvest** O.D. (600) = 0.55

**Pre-pulse incubation** 5 seconds on ice

**Wash solution** 10 mM HEPES, pH 7.0

### The Pulse

**Electroporation Temperature** Not given  
**Electroporation Medium** 10% glycerol

**Instruments Used** Gene Pulser® apparatus  
 Pulse Controller  
 Capacitance Extender

**Cell Density**  $1 \times 10^{11}$  cells / ml

**Cuvette Gap** 0.2 cm

**Voltage** 2.5 kV

**Volume of Cells** 40  $\mu$ l

**Field Strength** 12.5 kV/cm

**DNA Concentration** 20 ng

**Capacitor** 25  $\mu$ F

**DNA Resuspension Buffer** 2  $\mu$ l water

**Resistor** 200  $\Omega$  (Pulse Controller)

**Volume of DNA** 2  $\mu$ l

**Time Constant** 4.6 to 4.7 msec

### After the Pulse

**Outgrowth Medium** Not given

#### Relevant Publications and/or Comments

**Note:** exponential values designated in parentheses.

**Outgrowth Temperature** 37 °C

**LB:** 1% Bacto tryptone, 0.5% Bacto yeast extract, 0.5% NaCl.

**Length of Incubation** 1.5 hours

**Selection Method or Assay Used** ampicillin

**Electroporation Efficiency**  $2-5 \times 10^{(9)}/\mu$ g pUC18 or  $2-5 \times 10^{(6)}/\mu$ g double stranded blunt-end

**Per Cent Survival** Not given

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

**Telephone Number**

**Fax Number**

**Date Submitted** 8/29/90

**Survey Number** 044

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