



Gene Pulser® Electroprotocols

Cell Type Bacterial, gram negative

Species Used *E. coli*, DH5 α

Molecules Electroported DNA, various plasmids

Before the Pulse

Cell growth medium LB

Growth phase at harvest O.D. (600) = 0.8 - 1.0

Pre-pulse incubation Not done

Wash solution Water

The Pulse

Electroporation Temperature 0 °C

Instruments Used Gene Pulser® apparatus and Pulse Controller

Electroporation Medium Water + 10% glycerol

Cell Density 3 x 10⁽¹⁰⁾ cells / ml

Cuvette Gap 0.2 cm / 0.1 cm

Volume of Cells 40 μ l

Voltage 2.5 kV / 1.6kV

DNA Concentration 10 to 100 μ g DNA

Field Strength 12.5 kV/cm // 16 kV/cm

DNA Resuspension Buffer Water or ligation buffer

Capacitor 25 μ F

Volume of DNA 2 μ l

Resistor 200 Ω (Pulse Controller)

Time Constant 4.8 msec

After the Pulse

Outgrowth Medium LB

Relevant Publications and/or Comments

Note: exponential values designated in parentheses.
LB: 1% Bacto tryptone, 0.5% Bacto yeast extract, 0.5% NaCl.

Outgrowth Temperature 37 °C

Length of Incubation 1 hour

Selection Method or Assay Used Ampicillin resistance

Electroporation Efficiency 1 x 10⁽⁸⁾ to 1 X 10⁽⁹⁾ transformants / μ g DNA

Per Cent Survival Not given

Name of Submitter
Institution Address

Telephone Number

Fax Number

Date Submitted 3/4/91

Survey Number 015

© Bio-Rad Laboratories, 1993