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, suspension

Species Used Human, lymphocytes, primary

Molecules Electroporated DNA:

Before the Pulse

Cell growth medium RPMI-1640 + 10 % Fetal Bovine Serum (GIBCO/BRL, Sigma)

Wash solution Not given

Growth phase at harvest Not given

Pre-pulse incubation Not given

The Pulse

Electroporation Temperature Room temperature

Electroporation Medium* RPMI-1640 + 10 % Fetal Bovine Serum

Cell Density 5 x 10 (6) cells/ ml

Volume of Cells 250 μl / pulse

DNA Concentration 25 μg / pulse

DNA Resuspension Buffer Not given

Volume of DNA Not given

Instruments Used Gene Pulser® apparatus & Capacitance Extender

Cuvette Gap 0.4 cm

Voltage 0.250 kV

Field Strength 0.625 kV/cm

Capacitor 960 μF

Resistor (Pulse Controller) Ω

Time Constant 60 msec

After the Pulse

Outgrowth Medium Not given

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

Relevant Publications and/or Comments

Note: exponential values designated in parentheses.

Used conditions as pulished by Chen, *et al.*, Bio-Rad Technical Bulletin No.1348.

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