



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	Molecules	DNA: pRSVneo, linearized, 5.6 kB
Species Used	Human, K562, chronic myeloid leukemia	Electroporated	

Before the Pulse

Cell growth medium	RPMI + 20% Fetal Calf Serum (GIBCO/BRL, Sigma)	Growth phase at harvest	Log
Wash solution	RPMI	Pre-pulse incubation	Not given

The Pulse

Electroporation Temperature	Room temperature	Instruments Used	Gene Pulser® apparatus & Capacitance Extender
Electroporation Medium*	RPMI	Cuvette Gap	0.4cm
Cell Density	5 x10 ⁽⁶⁾ cells / ml	Voltage	up to 2 kV
Volume of Cells	0.4 to 0.8 ml	Field Strength	up to 5 kV/cm
DNA Concentration	5 µg / 800 µl	Capacitor	up to 960 µF
DNA Resuspension Buffer	Not given	Resistor	(Pulse Controller) Ω none
Volume of DNA	up to 50 µl	Time Constant	0.4 msec

After the Pulse

Outgrowth Medium	RPMI + 20% Fetal Calf Serum	Relevant Publications and/or Comments	Note: exponential values designated in parentheses.
Outgrowth Temperature	37 °C		
Length of Incubation	48 hr.		
Selection Method or Assay Used	G418		
Electroporation Efficiency	0.3% clonogenic cells / µg		
Per Cent Survival	Not given		

Name of Submitter
Institution Address

Telephone Number
Fax Number
Date Submitted 10/15/90
Survey Number 103
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