



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: pSV2 neo, 5 kB
Species Used	Mouse, erythroleukemia cells	Electroporated	

Before the Pulse

Cell growth medium	RPMI ,10% Fetal Calf Serum (GIBCO/BRL, Sigma)	Growth phase at harvest	Log phase
Wash solution	Not given	Pre-pulse incubation	10 to 20 min

The Pulse

Electroporation Temperature	4 °C	Instruments Used	Gene Pulser® apparatus
Electroporation Medium*	Not given	Cuvette Gap	0.4 cm
Cell Density	10 (7) cells / 50 µl	Voltage	0.4 kV
Volume of Cells	50 µl	Field Strength	1 kV/cm
DNA Concentration	Not given	Capacitor	25 µF
DNA Resuspension Buffer	Not given	Resistor	(Pulse Controller) none Ω
Volume of DNA	Not given	Time Constant	10 msec

After the Pulse

Outgrowth Medium	RPMI,10% Fetal Calf Serum	Relevant Publications and/or Comments Note: exponential values designated in parentheses.
Outgrowth Temperature	37 °C	
Length of Incubation	10 to 30 minutes	**Note: Transfection efficiencies of these cells may be increased with the use of the Capacitance Extender (providing longer time constants).
Selection Method or Assay Used		
Electroporation Efficiency	Low (**see notes)	
Per Cent Survival	20 to 70 %	

Name of Submitter
Institution Address

Telephone Number
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