



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	Molecules Electroporated	DNA, various linear constructs of human sequences & selectable markers.
Species Used	Mouse, A-9, derivative of mouse L cell (contains human chromosomes)		

Before the Pulse

Cell growth medium	DMEM (GIBCO/BRL, Sigma)	Growth phase at harvest	Not given
		Pre-pulse incubation	10 min. ice
Wash solution	Phosphate Buffered Saline, without Ca ⁺⁺ , Mg ⁺⁺		

The Pulse

Electroporation Temperature	Cuvette on ice just prior to pulse	Instruments Used	Not given
Electroporation Medium*	Phosphate Buffered Saline, without Ca ⁺⁺ , Mg ⁺⁺		
Cell Density	10 (7) cells / ml	Cuvette Gap	0.4 cm
Volume of Cells	0.8 ml	Voltage	0.45 kV
DNA Concentration	1 µg / 1 µl	Field Strength	1.125 kV/cm
DNA Resuspension Buffer	water	Capacitor	500 µF and 960 µF
Volume of DNA	10 µl	Resistor	(Pulse Controller) Ω none
		Time Constant	Not given

After the Pulse

Outgrowth Medium	DMEM	Relevant Publications and/or Comments	
		Note:	exponential values designated in parentheses.
Outgrowth Temperature	37 °C		
Length of Incubation	48 hours		
Selection Method or Assay Used	Hygromycin, G418, or MX		
Electroporation Efficiency	Low		
Per Cent Survival	Not given		

Name of Submitter
Institution Address

Telephone Number
Fax Number
Date Submitted 3/11/91
Survey Number 120
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