



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	DNA: plasmid.
Species Used	Human, V79, skin cells, fibroblasts	Electroporated	

Before the Pulse

Cell growth medium	Modified MEM, 5%Fetal Calf Serum (GIBCO/BRL, Sigma)	Growth phase at harvest	Actively growing 70% confluent
Wash solution	Phosphate Buffered Saline	Pre-pulse incubation	10 min / ice

The Pulse

Electroporation Temperature	Room temperature	Instruments Used	Gene Pulser® apparatus
Electroporation Medium*	10 mM HEPES	Cuvette Gap	0.4 cm
Cell Density	10 (7) cells / ml	Voltage	0.450 kV
Volume of Cells	0.4 ml	Field Strength	1.125 kV/cm
DNA Concentration	20 µg	Capacitor	25 µF
DNA Resuspension Buffer	Not given	Resistor	5 Ω
Volume of DNA	10 µl	Time Constant	10 msec

After the Pulse

Outgrowth Medium	Not given	Relevant Publications and/or Comments	
Outgrowth Temperature	37 °C	Note:	exponential values designated in parentheses.
Length of Incubation	1 week		
Selection Method or Assay Used	G418 or ampicillin		
Electroporation Efficiency	10 (6) transformants / µg		
Per Cent Survival	2 %		

Name of Submitter
Institution Address

Telephone Number
Fax Number
Date Submitted 3/18/91
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