



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, adherent	Molecules	DNA: linearized 8.5 kB plasmid
Species	Hybrid, mouse/human, A9 fibroblast,	Electroporated	
Used	hybrid containing human chromosomes		

Before the Pulse

Cell growth medium	DMEM + 10% Fetal Calf Serum + mycophenolic acid + xanthine	Growth phase at harvest	10 (7) cells / ml
Wash solution	HEPES Buffered Saline (HBS)	Pre-pulse incubation	10 min. on ice, (0°C)

The Pulse

Electroporation Temperature	Room temperature	Instruments Used	Gene Pulser® apparatus & Capacitance Extender
Electroporation Medium*	HEPES Buffered Saline (HBS)	Cuvette Gap	0.4 cm
Cell Density	Approximately 10 (7) cells / ml	Voltage	0.250, 0.450 kV
Volume of Cells	0.8 ml	Field Strength	0.625, 1.125 kV/cm
DNA Concentration	10 µg	Capacitor	125, 250, 500, 960 µF
DNA Resuspension Buffer	Not given	Resistor	(Pulse Controller) Ω none
Volume of DNA	Not given	Time Constant	Not given

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	Not given	HBS:	10mM HEPES, pH 7.2, 150 mM NaCl, 5 mM CaCl ₂
Selection Method or Assay Used	Hygromycin B		
Electroporation Efficiency	Not given		
Per Cent Survival	Not given		

Name of Submitter
Institution Address

Telephone Number
Fax Number
Date Submitted 8/20/90
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