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, suspension	**Molecules Electroporated**	DNA: plasmid
Species Used	Human, HeLa, epithelial carcinoma		

Before the Pulse

Cell growth medium	Not given	**Growth phase at harvest**	50 to 80%
		Pre-pulse incubation	Ice, 10 minutes
Wash solution	Not given		

The Pulse

Electroporation Temperature	Room temperature	**Instruments Used**	Not given
Electroporation Medium*	Phosphate Buffered Saline		
		Cuvette Gap	0.4 cm
Cell Density	1 x 10 (7) cells / ml	**Voltage**	0.25 kV
Volume of Cells	800 μl	**Field Strength**	0.625 kV/cm
DNA Concentration	1 μg / ml	**Capacitor**	960 μF
DNA Resuspension Buffer	TE Buffer (10 mM Tris, 1 mM EDTA)	**Resistor**	(Pulse Controller) none Ω
Volume of DNA	5 μl	**Time Constant**	18 to 22 msec

After the Pulse

Outgrowth Medium	Not given
Outgrowth Temperature	Not given
Length of Incubation	Not given
Selection Method or Assay Used	Not given
Electroporation Efficiency	Not given
Per Cent Survival	Not given

Relevant Publications and/or Comments

Note: exponential values designated in parentheses.
PBS: 1x = 8g NaCl,0.2g KCl,0.2g KH_2PO_4, 1.15g Na_2HPO_4

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Date Submitted 3/25/91

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