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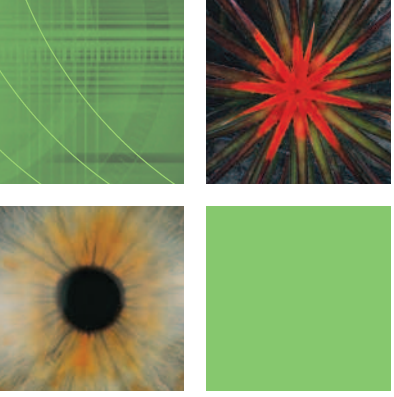
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GENE TRANSFER: ELECTROPORATION

# MicroPulser™ Electroporator

- Compact, space-saving design
- Audible and visible pulse indicators
- Display of time constant and actual voltage delivered to monitor reproducibility
- 3,000 V capability for improved efficiency in cuvettes with larger volume

## An Ideal Gene Transfer Tool for Bacteria, Fungi, and Other Microorganisms

### Advantages of Electroporation

The MicroPulser electroporator is a simple yet versatile electroporator that provides a safe and reproducible way for you to transform bacteria, fungi, and other microorganisms. Transformation efficiencies much higher than those obtained by chemical methods can be achieved by electroporation.

The MicroPulser electroporator's compact, space-saving design comes with preset optimized programs for transformation of commonly studied bacteria and fungi. Its audible and visible pulse indicators display time constant and actual voltage delivered (200–3,000 V with 10 V precision) to monitor reproducibility and ensure accuracy, while its arc-quenching (ARQ) system protects valuable samples. A broad range of parameters is available for manual optimization.

The MicroPulser electroporator offers safe operation, rapid optimization, and outstanding results.

### Unique Features

- ARQ system that reduces arcing, protecting against loss of valuable samples
- Rapid program selection — preset optimized programs for commonly studied bacteria and fungi
- Efficient sample handling with one-button pulse delivery, rapid charge time, and attached cuvette chamber




BIO-RAD

# **MicroPulser** Electroporator

## Preprogrammed Settings

The MicroPulser is preprogrammed with settings for electroporation of a number of commonly used organisms. The table below lists programs that are available under Bacteria Settings and Fungi Settings.

| | | Parameters | | |
|---|---|---|---|---|
| Mnemonic | Organism | Voltage (kV) | Number of Pulses | Time Constant* (ms) |
| **Bacteria** | | | | |
| Ec1 | *E. coli* (0.1 cm cuvette) | 1.8 | 1 | — |
| Ec2 | *E. coli* (0.2 cm cuvette) | 2.5 | 1 | — |
| StA | *S. aureus* (0.2 cm cuvette) | 1.8 | 1 | 2.5 |
| Agr | *A. tumefaciens* (0.1 cm cuvette) | 2.2 | 1 | — |
| Ec3 | *E. coli* (0.2 cm cuvette) | 3.0 | 1 | — |
| **Fungi** | | | | |
| Sc2 | *S. cerevisiae* (0.2 cm cuvette) | 1.5 | 1 | — |
| Sc4 | *S. cerevisiae* (0.2 cm cuvette) | 3.0 | 1 | — |
| ShS | *S. pombe* (0.2 cm cuvette) | 2.0 | 1 | — |
| Dic | *D. discoideum* (0.4 cm cuvette) | 1.0 | 2 | 1.0 |
| Pic | *P. pastoris* (0.2 cm cuvette) | 2.0 | 1 | — |

* Unless the pulse time is truncated below 5 ms, the unit will deliver the optimal time constant of ~5 ms to samples in high-resistance media.

## Cuvettes

Bio-Rad's high-quality electroporation cuvettes are available in three different gap widths — 0.4, 0.2, and 0.1 cm — for optimal field strength delivery to a wide range of cell types. The cuvettes ensure maximum electroporation efficiency and reproducibility between experiments, are color-coded, and have been sterilized by gamma irradiation.

## Specifications

| | |
|---|---|
| Input voltage | 100–120 V or 220–240 V |
| Maximum output voltage and current | 3,000 V peak into >600 W load; limited at 100 A peak maximum |
| Output waveform | Decaying or truncated-decaying exponential waveform with RC time constant |
| Output voltage and pulse duration adjustment | Voltage adjustable in 200–3,000 V range with 10 V precision; 5 ms default or 1–4 ms with 0.1 ms precision; 5 bacterial and 5 fungal preset programs |
| Ambient operating temperature | 3.5–35ºC |
| Dimensions (W x D x H) | 29 x 21 x 8 cm |
| Weight | 2.9 kg |

## Ordering Information

| Catalog # | Description |
|---|---|
| **MicroPulser Electroporator** | |
| 165-2100 | **MicroPulser Electroporator**, includes a cuvette chamber with leads, 10 sterile cuvettes (5 each of 0.1 cm and 0.2 cm gap) |
| **Cuvettes** | |
| **Standard Packs** | |
| 165-2088 | Gene Pulser®/MicroPulser Cuvettes, 0.4 cm gap, 50 (regular pack) |
| 165-2086 | Gene Pulser/MicroPulser Cuvettes, 0.2 cm gap, 50 (regular pack) |
| 165-2089 | Gene Pulser/MicroPulser Cuvettes, 0.1 cm gap, 50 (regular pack) |
| **Jumbo Packs*** | |
| 165-2091 | Gene Pulser/MicroPulser Cuvettes, 0.4 cm gap, 500 (jumbo pack) |
| 165-2092 | Gene Pulser/MicroPulser Cuvettes, 0.2 cm gap, 500 (jumbo pack) |
| 165-2093 | Gene Pulser/MicroPulser Cuvettes, 0.1 cm gap, 500 (jumbo pack) |
| **Mini Packs** | |
| 165-2081 | Gene Pulser/MicroPulser Cuvettes, 0.4 cm gap, 5 (mini pack) |
| 165-2082 | Gene Pulser/MicroPulser Cuvettes, 0.2 cm gap, 5 (mini pack) |
| 165-2083 | Gene Pulser/MicroPulser Cuvettes, 0.1 cm gap, 5 (mini pack) |

* Please inquire about volume pricing.

For more information, visit us on the Web at **www.bio-rad.com/genetransfer/** or **www.bio-rad.com/rnai/**


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*Bulletin 5448 US/EG Rev A* *06-0204 1006 Sig 1205*

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