Gene Pulser MXcell™ Electroporation System Plate Instruction Manual

Bio-Rad's electroporation plates are available in three different formats: 96-well, 24-well, and 12-well. The electroporation plates are disposable and meant for a single use. They contain embedded electrodes and are the size of a standard microtiter plate (SBS dimensions).

Programming the Gene Pulser MXcell electroporator is organized by well sets. A well set is composed of four adjacent wells in a column in a 96-well plate. When programming the Gene Pulser MXcell electroporation system, the well set appears as the rows, followed by the column number, such as ABCD1.
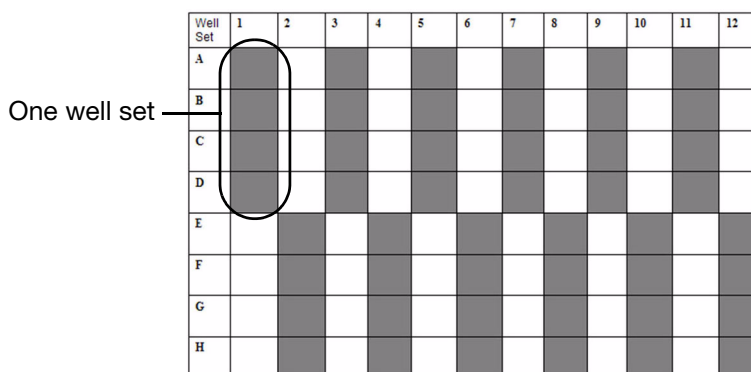

Figure 1. Well sets in a 96-well plate.

How to load an electroporation plate

1. In order to obtain optimal results, fill each well with the amount of buffer indicated in this table:

Plate format	Example well set format	Well volume*	Number of well sets
96-well	ABCD1, EFGH1, ABCD2	100-200 µl	24
24-well	ABCD1,EFGH1, ABCD2	500-800 µl	24
12-well	ABCDEFGH1, ABCDEFGH2	1.0-1.5 ml	12

   * With adherent cells, we suggest starting with 1×10^6 cells/ml,and have been successful using $0.5\text{-}5 \times 10^6$ cells/ml. For suspension cells, we suggest starting with 2×10^6 cells/ml and have been successful using $2.0\text{-}10 \times 10^6$ cells/ml.

   WARNING! All wells in a well set must be filled with either sample or sample buffer. For example, if you want to electroporate six wells, fill a complete well set (such as ABCD1) with sample and fill two wells in a second well set (such as AB2) with sample. Finally, be sure to fill the remaining two wells in the second well set (such as CD2) with the sample buffer.

2. Gently rock the plate back and forth to ensure the electrode is adequately wet.

3. Place the plate firmly in the plate chamber, and press down firmly on the lid.

For more details, refer to the Gene Pulser MXcell electroporation system instruction manual.

Bio-Rad Laboratories, Inc., 2000 Alfred Nobel Drive, Hercules, CA 94547 · 800-424-6723

10010742 Rev A