

THE INSTITUTE FOR GENOMIC RESEARCH  
Standard Operating Procedure

TITLE: **MAKING MICROARRAY PRINTING PLATES (IN DMSO)**

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SOP #: M003

REVISION LEVEL: 1

EFFECTIVE DATE:

AUTHOR:  
*Jeremy Hasseman*

PRIMARY REVIEWERS:  
*Emily Chen, John Quackenbush, Ivana Yang*

## 1. PURPOSE

This protocol describes the method for making microarray printing plates in a 96 well format. (The same procedure applies to a 384 well format as well.)

## 2. MATERIALS

- 2.1 Costar 96 well V-bottom plates (Corning; Cat # 3897)
- 2.2 Costar Corner Notch Lid (Corning; Cat # 3930)
- 2.3 Dimethyl Sulfoxide (DMSO)

## 3. PROCEDURE

- 3.1 Pipette 5  $\mu$ L of DMSO into the bottom of a Costar V-bottom plate.
- 3.2 Label the plates according to the orientation the plates will have in the array printer.  
  
**Note:** TIGR Intelligent Automation Systems (IAS) arrayer hotels hold plates with the A1 short-side facing outward, therefore, that side is the most convenient to have labeled.
- 3.3 Pipette 5  $\mu$ L of purified PCR product into the DMSO and mix with pipette.
- 3.4 Centrifuge at 2700 rpm for 1 minute to make sure the 50% DMSO/PCR product solution is in the bottom/center of the well where the spotting pins will dip into the well.
- 3.5 Store in 4° C for a short term storage and -20° C for long term storage.

**Note:** DMSO has an extremely low evaporation rate therefore sealing the plates with tape is **NOT** necessary. Residual adhesive may complicate lid removal during an array printing.