

Pronto!™ Universal Microarray Kits

Instruction Manual

For Research Laboratory Use Only

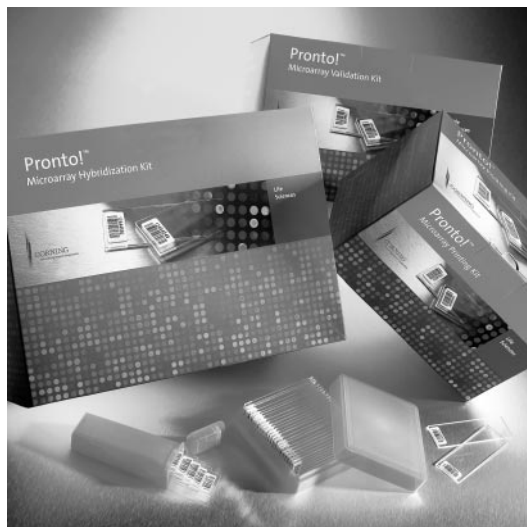
Cat. No. 40024: Pronto! Universal Validation Kit

Cat. No. 40025: Pronto! Universal Printing Kit

Cat. No. 40026: Pronto! Universal Hybridization Kit – for 25 Arrays

Cat. No. 40028: Pronto! Universal Hybridization Kit – for 10 Arrays

For MSDS and the most current information about these and related products, please visit www.corning.com/lifesciences.



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INTRODUCTION

Overview

Corning® UltraGAPS™ and Epoxide Slides are premium microarray substrates designed and manufactured to meet the most demanding arraying requirements. UltraGAPS slides have a uniform coating of pure Gamma Amino Propyl Silane (GAPS) that allows for the ionic attachment of double-stranded DNA as well as long oligonucleotides. Epoxide Slides have a uniform coating of proprietary epoxide chemistry that enables covalent attachment of unmodified and amino-modified DNA to the glass substrate. Both the GAPS and Epoxide coatings are applied on both sides of the slides using a proprietary process under tightly controlled manufacturing conditions. These premium substrates offer printing surfaces of unmatched cleanliness, high DNA-binding capacity, uniformity, and stability.

Microarray quality is highly dependent on the quality and integrity of the substrate. Arrays printed on coated glass of poor quality are likely to produce spots of varying size, shape, and DNA content. The presence of scratches, haze, and contaminating particulates on the slide surface also cause deformation of the arrays as well as high background fluorescence. These problems lead to loss in sensitivity and generally poor results.

The reliability and overall quality of microarray data are also dependent on the formulation and consistency of the reagents used to print and process the arrays. Corning has developed reagents that are specifically tuned to its UltraGAPS and Epoxide Slides. The Pronto!™ Universal Microarray Kits have been optimized for use with these two slide types such that researchers may achieve the highest possible level of performance, standardization, and technical control throughout the microarray process.

The use of the Pronto! Universal Spotting Solution and Pronto! Epoxide Spotting Solution with their appropriate slides results in enhanced printing quality and hybridization performance. The spotting solutions show low evaporation rates, resulting in greater stability of the biological content and lower print failure rates, relative to other commonly used printing solutions. The Pronto! Long Oligo/cDNA Hybridization Solution has been optimized to create the most favorable environment for hybridization between labeled cDNA and spotted amplicons or long oligonucleotides while minimizing the occurrence of cross-hybridization. The Pronto! Short Oligo Hybridization Solution was designed for hybridization between labeled cDNA and short (30- to 50-mer) oligonucleotide probes. The Pronto! Wash Solutions have been formulated to reduce background fluorescence and thus achieve the highest sensitivity and specificity.

The combined use of Corning® UltraGAPS™ or Epoxide Slides with Pronto! Universal Microarray Kits not only results in cost savings, greater convenience, and increased productivity, but, most importantly, works to set a new standard for microarray quality and performance.

Quality Controlled Reagents

All reagents have been manufactured using the highest quality water and chemical components. Reagents are manufactured in a clean room environment following strict manufacturing process controls. Once the reagents are prepared, all reagents are filter-sterilized directly into chemically compatible plastic bottles utilizing precise fill control processes. The reagents then undergo stringent quality control testing to ensure inter-lot consistency. Reagents are visually inspected as well as tested for pH, conductivity, and nuclease contamination. Printing solutions are functionally examined for print performance using Corning UltraGAPS and Epoxide Slides and Syto® 61 staining procedures to inspect printed control nucleic acids for spot quality, size, DNA retention, and hybridization efficiency. All reagents are functionally tested to exceed strict specifications using labeled controls and following the recommended protocols as outlined in this instruction manual.

Handling and Care Instructions

To maximize the benefits of using Corning premium substrates and reagents, please follow these recommendations:

1. Use the slides in a clean environment. Particles falling onto the slide surface may cause defects in the printed array as well as nuclease contamination. Self-contained printing environments may be required to prevent such contamination.
2. Avoid direct contact with the surface of the slide to be printed. Only the print pins and processing solutions should touch the print area to avoid contamination and abrasion of the coating.
3. When using slides without bar codes, clearly mark the side to be printed using a glass-etching tool.
4. If the package of slides has been inadvertently stored at temperatures lower than 20°C, allow it to come to room temperature before opening. Otherwise, condensation may form on the slide surface, negatively affecting the uniformity of the coating.
5. Open the pouch just prior to printing. Close the cap on the slide container as soon as possible after removing slides to maintain a closed environment for unused slides. Place the closed container in the pouch to protect the remaining slides and store them in a desiccator. Use the remaining slides within one week of opening the pack.

6. Equilibrate reagents to recommended temperatures prior to use.
7. Thoroughly mix all solutions prior to use. If precipitation occurs, incubate at 37°C and mix until precipitate is no longer seen.
8. Read all Material Safety Data Sheets (MSDS) for appropriate handling of all reagents provided in the Pronto!™ Universal Microarray Kits; MSDS are available upon request or can be downloaded from Corning at www.corning.com/lifesciences/pronto.

Storage Instructions

All components of the Pronto! Universal Microarray Kits can be conveniently stored at normal laboratory ambient temperatures (20° to 25°C). All kit components have met functional performance criteria after exposure to temperatures between -20° and 45°C.

Store UltraGAPS™ and Epoxide Slides at ambient temperature (20° to 25°C) in original undamaged packaging, and use slides by the date indicated on the label. Proceed as described in the Handling and Care Instructions after opening the package.

Safety Considerations

Please follow all generally accepted laboratory safety guidelines when working with the Pronto! Universal Microarray Kits. At a minimum, wear appropriate personal protective equipment such as a lab coat, safety glasses, powder free latex gloves, etc. Follow recommended standard operating procedures for any laboratory equipment used in your experiments. Read all Material Safety Data Sheets for appropriate handling of all reagents provided in the Pronto! Universal Microarray Kits. MSDS are available upon request or can be downloaded from Corning at www.corning.com/lifesciences/pronto.

Product Use Limitations, Warranty, Disclaimer

Corning® Pronto! Universal Microarray Kits are sold for research purposes only and are not intended for resale. This product is not to be used in human diagnostics or for drug purposes, nor is it to be administered to humans in any way. This product contains chemicals that may be harmful if misused. Proper care should be exercised with this product to prevent human contact. Corning products are guaranteed to perform as described when used properly. Manufacturer liability is limited to the replacement of the product or a full refund. Any misuse of this product including failure to follow proper use protocols is the responsibility of the user, and Corning makes no warranty or guarantee under these circumstances.

Certain arrays and/or methods of preparation, analysis or use may be covered by intellectual property rights held by others in certain countries. Use of this product is recommended only for applications for which the user has a license under proprietary rights of third parties or for technology for which a license is not required.

Corning's products may be used in connection with the manufacture, use and/or analysis of oligonucleotide arrays under patents owned by Oxford Gene Technology Limited or related companies ("OGT"), but Corning does not have the right to pass on a licence under any such patents. Therefore, before Corning's products can be used in connection with the manufacture, use, or analysis of oligonucleotide arrays, the user should first check with OGT as to whether a licence is necessary and if so, secure one. To enquire about a licence under OGT's oligonucleotide array patents, please contact licensing@ogt.co.uk. For information about OGT, please visit its website at www.ogt.co.uk.

PREPARATION AND HYBRIDIZATION OF DNA MICROARRAYS

General Considerations

The surfaces of UltraGAPS™ and Epoxide Coated Slides are highly reactive towards DNA. The key to producing microarrays of high quality is to take advantage of this high reactivity during the printing process while minimizing the spurious attachment of nucleic acids to the unprinted area during subsequent manipulation of the array. The following are some of the most critical factors to consider:

- ▶ *Concentration of the DNA.* The high reactivity of UltraGAPS and Epoxide Slides allows the use of dilute printing solutions. The optimal concentration needs to be determined empirically. When too little DNA is used, the printed spots will not reach signal saturation levels, thus reducing the dynamic range of the array. Conversely, highly concentrated printing solutions can produce spots with "comet tails" and other forms of localized background. The concentration and purity of the DNA should be checked spectrophotometrically as well as electrophoretically. We recommend 0.1 mg/mL as a starting point for further optimization when printing dsDNA (e.g., PCR products, genomic DNA) and 0.5 mg/mL when printing oligonucleotides.

- ▶ *Arrayer Settings and Pin Quality.* Follow the instructions provided by the manufacturer of arraying equipment and printing pins. Pin-contact time and the force with which the pin strikes the slide affect spot size and morphology. Pins must be individually qualified before use. Pins that are either broken or do not conform to operating specifications can ruin otherwise good arrays. Make sure to optimize the printing and pin-washing steps before using the Pronto!™ Universal Spotting Solution with UltraGAPS™ Slides or Pronto! Epoxide Spotting Solution with Epoxide Slides for the first time.

- ▶ *Immobilization Procedures.* UV cross-linking and/or baking enhances binding of DNA to the GAPS coated surface. These procedures work equally well for DNA molecules longer than 300 bp. Smaller DNA molecules and oligonucleotides are best immobilized by UV cross-linking. When baking, care should be taken regarding the cleanliness of the oven. Volatile organics can irreversibly contaminate the surface of the array leading to high backgrounds.

Note: It is not necessary to UV crosslink or bake arrays printed on Epoxide Slides to covalently attach DNA.

- ▶ *RNA Integrity.* The RNA concentration and purity should be determined by the absorbance at 260/280 nm and gel analysis. The A260/280 ratio should be 1.8 to 2.0. The purity and integrity of the RNA should be confirmed by gel electrophoresis. To check for DNA contamination, an aliquot of RNA may be digested with RNase and run on an agarose gel. The presence of a smear or bands after RNase treatment is indicative of DNA contamination. DNA contamination will result in low signals and high background after hybridization.
- ▶ *Input of Labeled cDNA.* The optimal frequency of incorporation (FOI = # of dye-labeled nucleotides per 1,000 nucleotides) is between 20 and 50 dye-labeled nucleotides per 1,000 nucleotides. Lower incorporation will affect the sensitivity of the labeled target. An FOI greater than 50 dye-labeled nucleotides per 1,000 is also suboptimal due to low hybridization efficiencies believed to be due to steric hindrance from the cyanine dye molecules.
- ▶ *Background Fluorescence.* Depending on their age, the purity of the biological material and other reagents used, and the storage conditions, DNA microarrays may develop significant levels of background fluorescence on and around the printed areas. It is important to eliminate "spotted" fluorescence in order to accurately measure basal levels of transcript abundance. The Pronto! Universal Background Reduction treatment (pre-soak) followed by Pre-Hybridization, as detailed below, effectively eliminate background fluorescence.

Printing Protocol

The Pronto![™] Universal Spotting Solution (Cat. No. 40027) and Pronto! Epoxide Spotting Solution (Cat. No. 40047) are provided ready for use. Dilution or addition of other reagents is not necessary. The Universal Spotting Solution is an excellent medium for dissolving oligonucleotides as well as dsDNA for printing microarrays. This proprietary formulation has been tested thoroughly on UltraGAPS[™] Slides and may be used with either solid or quill pins. Alternatively, the Pronto! Epoxide Spotting Solution is formulated for use with Corning[®] Epoxide Slides.

Although UltraGAPS and Epoxide Slides are highly versatile substrates and have both been successfully used to fabricate arrays of oligonucleotides and double-stranded DNA, we recommend the use of Epoxide Slides for oligonucleotides (both short and long) and of UltraGAPS slides for double-stranded DNA (e.g., PCR products, genomic DNA). Please refer to the UltraGAPS Coated Slides Instruction Manual or the Epoxide Coated Slides Instruction Manual for detailed printing protocols.

It is crucially important to fully evaluate the performance of a particular spotting medium under conditions as close to working conditions as possible before committing large sets of probes to the formulation. Thorough and properly controlled print tests must be done in order to ensure that the desired spot density and array uniformity is achievable. Once probe DNA is dissolved in a spotting medium, it is very difficult to recover it for reconstitution in a different solvent.

For Oligonucleotide Arrays

1. Prepare DNA source plates (sterile, nuclease-free Corning 384-well storage microplates are recommended; Cat. No. 3656 and 3672) by one of either alternative methods a or b. A sufficient volume of printing solution needs to be prepared to cover the bottom of the receiving wells; this corresponds to between 5 and 10 μL per well when using 384 well plates of standard volume. Please follow the recommendations of the microarrayer manufacturer.
 - a. Dissolve oligonucleotides to a maximum of 1.0 mg/mL (0.5 mg/mL is a good starting concentration for further optimization) in Pronto! Universal Spotting Solution if using UltraGAPS Slides or Pronto! Epoxide Spotting Solution if using Epoxide Slides. Transfer the DNA solution to a Corning 384 well plate.
 - b. Alternatively, add the desired volume of spotting solution to the wells containing DNA that have been dried by vacuum centrifugation.

2. Set up the arrayer and print slides according to the manufacturer's or laboratory protocol. The printing environment should be free of dust particles, and kept at a temperature of 20° to 22°C. Optimal humidity level for UltraGAPS[™] Slides is 45 to 55%, and for Epoxide Slides 55 to 70%.
3. Place arrays made on UltraGAPS Slides in a desiccator for up to 48 hours (vacuum desiccator works best). Place arrays made on Epoxide Slides in a humidity chamber set at 70 to 75% relative humidity for 12 to 17 hours.
4. Immobilize spotted oligonucleotides printed on UltraGAPS Slides by applying 600 mJ of UV energy to the printed surface.

Note: It is not necessary to UV crosslink or bake arrays printed on Epoxide Slides to covalently attach DNA.
5. Place arrays in Corning[®] 25 Slide Holder (Cat. No. 40081). Place the holder containing the arrays in Corning Microarray Storage Pouch (Cat. No. 40086) and heat-seal the pouch. Arrays can be stored in a dry environment at normal laboratory temperature (20° to 25°C) for up to 6 months prior to hybridization. Exchanging the regular atmospheric air for clean nitrogen gas helps prevent oxidation of spotted material and extends the shelf life of the arrays.

For Double-stranded-DNA Arrays

1. Prepare DNA source plates (sterile, nuclease-free Corning 384-well storage microplates are recommended; Cat. No. 3656 and 3672) by one of either alternative methods a or b. A sufficient volume of printing solution needs to be prepared to cover the bottom of the receiving wells; this corresponds to between 5 and 10 μL per well when using 384 well plates of standard volume. Please follow the recommendations of the microarrayer manufacturer.
 - a. Dissolve dsDNA to a maximum of 0.25 mg/mL (0.1 mg/mL is a good starting concentration for further optimization) in Pronto![™] Universal Spotting Solution if using UltraGAPS Slides. Transfer the DNA solution to the Corning 384 well plate.
 - b. Alternatively, add the desired volume of spotting solution to the wells containing DNA that have been dried by vacuum centrifugation.
2. Set up the arrayer and print slides according to the manufacturer's or laboratory protocol. The printing environment should be free of dust particles, and kept at a temperature of 20° to 22°C with relative humidity between 45 and 55%.
3. Place arrays in a desiccator for up to 48 hours (vacuum desiccator works best).

4. Immobilize spotted DNA printed on UltraGAPS™ slides by applying 150 to 300 mJ of UV light to the printed surface of the array, or by baking the array at 80°C for 2 to 4 hours.
5. Place arrays in Corning® 25 Slide Holder (Cat. No. 40081). Place the holder containing the arrays in Corning Microarray Storage Pouch (Cat. No. 40086) and heat-seal the pouch. Arrays can be stored in a dry environment at normal laboratory temperature (20° to 25°C) for up to 6 months prior to hybridization. Exchanging the regular atmospheric air for clean nitrogen gas helps prevent oxidation of spotted material and extends the shelf life of the arrays.

Labeling Protocol

The Pronto!™ Long Oligo/cDNA Hybridization Solution and Pronto! Short Oligo Hybridization Solution have been validated using Cy®-labeled cDNA synthesized by reverse transcription of mRNA and total RNA in the presence of Cy-dCTP. We have consistently obtained good yields and incorporation rates with the FluoroLink™ Cy3- and Cy5-dCTPs (Amersham Biosciences Cat. Nos. PA53021 and PA55021, respectively) for the synthesis of fluorescently labeled cDNA. These hybridization solutions may also be used to dissolve other types of fluorescently labeled nucleic acids for microarray hybridization.

The quality and cleanliness of the starting RNA and the resulting cDNA are critical factors for successful use of the arrays. It is recommended that RNA quality be thoroughly checked before attempting to synthesize cDNA and that the labeled cDNA be purified and quantified with a spectrophotometer. Exposure of solutions containing fluorescent nucleotides to light should be minimized to prevent photo bleaching.

We recommend the use of the Pronto! *Plus* Systems for isolation of RNA and the synthesis and purification of fluorescently labeled cDNA. For more information about these microarray reagent systems, please visit www.prontosystems.com.

Hybridization Protocol

Preparation of Wash Solutions

The volumes of Universal Wash Reagents A and B provided in the Pronto! Universal Validation and Hybridization Kits are sufficient for processing 10 or 25 arrays. We recommend preparing wash solutions all at one time as described in order to control variation in the preparation. The following volumes for wash solution preparation are for 10 microarrays and should be adjusted by multiplying by 2.5 for the Pronto! Universal Hybridization Kit (25 arrays, Cat. No. 40026). Carefully follow the order of addition.

<i>Wash Solution 1</i>	
deionized water (18 MegaOhm Milli-Q® preferred)	447.5 mL
Universal Wash Reagent A	50 mL
Universal Wash Reagent B	2.5 mL
<i>Wash Solution 2</i>	
deionized water (18 MegaOhm Milli-Q preferred)	1,425 mL
Universal Wash Reagent A	75 mL
<i>Wash Solution 3</i>	
Wash Solution 2	300 mL
deionized water (18 MegaOhm Milli-Q preferred)	1,200 mL

Background Reduction Treatment and Pre-Hybridization

Note: Reagents are used most efficiently by simultaneously processing multiple arrays in staining jars. We recommend processing 10 arrays in glass staining dishes (Fisher Cat. No. 08-812), which require 200 mL of buffer at each step in the following protocol. Larger numbers of arrays and containers of greater capacity will require proportionally larger volumes.

1. Heat required volumes of both Pronto!™ Universal Pre-Soak Solution and Pronto!™ Universal Pre-Hybridization Solution to 42°C for at least 30 minutes.
2. Dilute 2 mL of liquid borohydride into 198 mL (1:100 dilution) of 42°C Pre-Soak Solution. Swirl gently to mix. Use the resulting solution within 30 minutes of preparation to maximize its effectiveness.
Note: Open bottle of liquid borohydride under an exhausting hood and keep closed when not in use. Wear appropriate personal protective eyewear (safety glasses) when working with this material, as indicated in MSDS. Do not use near an open flame. Consult MSDS and the appropriate local authority regarding disposal of this material.
3. Immerse arrays in solution from Step 2 and incubate at 42°C for 20 minutes.
4. Transfer arrays to Wash Solution 2 and incubate at ambient temperature for 30 seconds.
5. Transfer arrays to a fresh container of Wash Solution 2 for 30 seconds.
6. Immerse arrays in 42°C Universal Pre-Hybridization Solution (from Step 1) and incubate for 15 minutes.
7. Transfer arrays to a fresh container of Wash Solution 2 and incubate at ambient temperature for 1 minute.
8. Transfer arrays to Wash Solution 3 and incubate at ambient temperature for 30 seconds.
9. Transfer arrays to a fresh container of Wash Solution 3 and incubate at ambient temperature for 30 seconds.

- Dip arrays briefly in nuclease-free water at ambient temperature (22° to 25°C), and dry by blowing high-purity nitrogen gas over the array or by centrifugation at 2,500 rpm for 2 minutes.
- Store arrays in a dust-free environment (or in slide holder) until ready for hybridization.

Hybridization

- Wash the required number of pieces of Corning® Cover Glass (Cat. No. 2870-22, 2940-244, 2940-246; at least 1 piece of cover glass per array should be processed) with nuclease-free water, followed by ethanol. Dry cover glass by blowing high-purity compressed nitrogen gas or allow to air-dry in a dust-free environment.
- Dry the appropriate amount of each dye-labeled cDNA (see table below) using a speed-vacuum concentrator.
 - For cDNA or long oligo nucleotide arrays (>50-mer), dissolve the dye-labeled cDNA in the required volume of Pronto!™ Long Oligo/cDNA Hybridization Solution (see table below).
 - For short oligo nucleotide arrays (30- to 50-mer), dissolve the dye-labeled cDNA in the required volume of Pronto! Short Oligo Hybridization Solution (see table below).

Calculating the Volume of Hybridization Solution to Use

The volume of Pronto! Long Oligo/cDNA Hybridization Solution or Short Oligo Hybridization Solution needed depends on the size of the printed area and cover glass. For the Corning cover glass, use 2.5 to 3.5 µL of hybridization solution per cm² of surface area. This range of volume will accommodate differences in humidity conditions and hybridization times. The fluorescence strength required to achieve high levels of sensitivity and broad dynamic range depends on the template used to synthesize the Cy⁵-cDNA.

Recommended Hybridization Solution Volumes and pmol of labeled cDNA Based on Varying Coverslip Sizes

Coverslip Size	Surface Area (cm ²)	Volume of Hybridization Solution	Amount of Labeled cDNA from Total RNA (per slide)	Amount of Labeled cDNA from mRNA (per slide)
22 × 22 mm	4.84	12-17 µL	12-17 pmol	3-4 pmol
24 × 40 mm	9.60	24-33 µL	24-33 pmol	6-8 pmol
24 × 60 mm	14.4	36-50 µL	36-50 pmol	9-12 pmol

*If doing a two-color hybridization, combine the recommended amount of both dye-labeled cDNAs. For example, for a 22 × 22 mm coverslip with a two-color hybridization using total RNA-derived cDNA, combine 12-17 pmol of Cy3-labeled and 12-17 pmol of Cy5-labeled cDNAs.

Calculating the Amount of cDNA to Use

Total RNA: For Cy⁵-labeled cDNA made from total RNA, dry down 1.0 pmol of labeled cDNA per microliter of hybridization solution that will be used per dye.

mRNA: For Cy-labeled cDNA made from mRNA, dry down 0.25 pmol of incorporated nucleotides per microliter of hybridization solution that will be used per dye.

- Incubate the labeled cDNA solution at 95°C for 5 minutes, protecting samples from light.
- Centrifuge the labeled cDNA at 13,500 × g for two minutes to collect condensation. Do not place the solution on ice because this will cause precipitation of some of the components.
- Place array in Corning® Hybridization Chamber (Cat. No. 40080). Pipet the labeled cDNA gently up and down and then transfer onto the surface of the printed side of the slide. Carefully place the cover glass on the array. Avoid trapping air bubbles between the array and the cover glass. Small air bubbles that do form usually dissipate during hybridization. Assemble the hybridization chamber as described in its package insert.
- Incubate the chamber-array assembly at 42°C for 12 to 16 hours using a water bath or a hybridization oven.

Note: Do not allow arrays to dry out during the hybridization process.

Post-Hybridization Washes

Note: Reagents may be used most efficiently by simultaneously processing multiple arrays in staining jars. We recommend processing 10 arrays in glass staining dishes (Fisher Cat. No. 08-812), which require 200 mL of buffer at each step in the following protocol. Larger numbers of arrays and containers of greater capacity will require proportionally larger volumes.

Do not allow arrays to dry out between washes, as this irreversibly increases background levels. Multiple containers are needed to perform the washes in the most efficient manner. Have all containers and the volumes of washing solutions ready before starting the procedure.

- Heat required volume of Wash Solution 1 to 42°C for at least 30 minutes (note that Steps 3 and 4 both require prewarmed solutions).
- Disassemble the hybridization chambers with the printed array side facing up.
- Immerse arrays in Wash Solution 1 at 42°C for 1 to 2 minutes until the cover glass falls from the slide.
- Transfer arrays to a fresh container of Wash Solution 1 at 42°C and incubate for 5 minutes.

5. Transfer arrays to Wash Solution 2 at ambient temperature (22 to 25°C) and incubate for 2 minutes.
6. Repeat step 5 in a fresh container of Wash Solution 2.
7. Transfer arrays to Wash Solution 3 at ambient temperature and incubate for 2 minutes.
8. Transfer arrays to a fresh container of Wash Solution 3 at ambient temperature and incubate for 2 minutes.
9. Dry arrays by blowing clean compressed nitrogen gas over the array or by centrifugation.
10. Store arrays in Corning® 25 Slide Holder (Cat. No. 40081) in a dry environment at ambient temperature (20° to 25°C) until ready to scan.

TROUBLESHOOTING GUIDE AND CUSTOMER SERVICE INFORMATION

For a detailed troubleshooting guide, end-user FAQ and additional product information, please visit www.corning.com/lifesciences.

For questions, further clarification about this protocol, and other technical issues or information not covered in this manual, please e-mail clstechserv@corning.com or call 800.492.1110 (+1.978.635.2200 outside Canada and USA). In Europe, e-mail cctech@corning.com, or contact your local office listed on the back cover.

CORNING PRODUCTS FOR MICROARRAYS

Cat. No.	Product Description	Qty/Pk	Qty/Cs
40024	Pronto!™ Universal Validation Kit	1	1
40025	Pronto! Universal Printing Kit	1	1
40026	Pronto! Universal Hybridization Kit – for 25 Arrays	1	1
40028	Pronto! Universal Hybridization Kit – for 10 Arrays	1	1
40027	Pronto! Universal Spotting Solution – 250 mL	1	1
40047	Pronto! Epoxide Spotting Solution – 250 mL	1	1
40015	UltraGAPS™ Coated Slides, with Bar Code	5	25
40016	UltraGAPS Coated Slides, without Bar Code	5	25
40017	UltraGAPS Coated Slides, with Bar Code, Bulk Pack	25	25
40018	UltraGAPS Coated Slides, without Bar Code, Bulk Pack	25	25
40041	Epoxide Coated Slides with Bar Code	5	25
40042	Epoxide Coated Slides without Bar Code	5	25
40080	Hybridization Chamber II with Increased Depth	1	5
40001	Hybridization Chamber O-rings	5	5
40081	Corning® 25 Slide Holder	10	20
40086	Microarray storage pouch for 25 Slide Holder	50	50
2870-22	Corning Cover Glass, Square, 22 × 22 mm, No. 1½	1 oz	10 packs
2940-244	Corning Cover Glass, Rectangular, 24 × 40 mm, No. 1½	1 oz	10 packs
2940-246	Corning Cover Glass, Rectangular, 24 × 60 mm, No. 1½	1 oz	10 packs
3357	96 Well V-bottom Polypropylene Microplate	25	100
3656	384 Well Polypropylene Storage Microplate	25	100
3672	384 Well Microarray Printing Plate, Low Volume	10	50
3099	Universal Lid – Rigid Lid for 96 and 384 Well Microplates	25	50
6569	Aluminum Sealing Tape for 384 Well Blocks and Microplates	100	100
6570	Aluminum Sealing Tape for 96 Well Blocks and Microplates	100	100

Visit www.corning.com/lifesciences to learn about Corning microplates and other laboratory products.

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