

Product Information

ARRAYER CALIBRATION SOLUTION

Product Number **C 2110**

Storage Temperature 2–8 °C

Product Description

The Arrayer Calibration Solution is designed for calibration of arrayers prior to printing microarrays using poly-L-lysine and 3-aminopropylsilane coated glass slides. The particulate-free solution contains DNA in a sodium citrate buffered solution with a detergent and a blue dye. The blue dye is detectable primarily on the Cy5™ channel (ex. 633 nm/em. 670 nm) of fluorescent scanners permitting visualization of printed spots and assessment of spot morphology and spot-to-spot consistency.

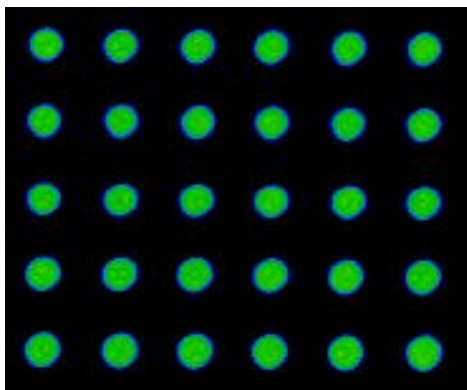


Figure 1. Arrayer Calibration Solution arrayed on SigmaScreen Slides (S7934) using an Affymetrix GMS-417 arrayer. Fluorescent scan performed using a Packard/GSI Lumonics ScanArray 4000 at 60% Laser and 55% PMT on the Cy5 Channel.

Storage/Stability

The Arrayer Calibration Solution is stable at 2–8 °C for at least 1 year.

Precautions and Disclaimer

For laboratory use only, not for drug, household or other uses.

Procedure

The Arrayer Calibration Solution is provided ready to use. Pipette the appropriate amount of arrayer calibration solution to the wells corresponding to pins/tips to be calibrated. Follow the standard calibration protocol recommended by the manufacturer of the arrayer. Scan the calibration slide to ensure that the printed spots are uniform and the desired shape and size across the printed area. Failure to achieve uniform spots may indicate the need to clean the pins/tips, adjust the force of the print, or even replace the pins/tips. Calibration should be repeated until all of the printing pins/tips are yielding uniform spots of the desired shape and size.

Notes:

1. The arrayer calibration solution may be used with pin/ring (Affymetrix GMS417) or split pin arrayers.
2. It is **not** recommended that slides printed with the arrayer calibration solution be used for hybridization. Leaching of the dye may cause higher backgrounds in the Cy5 channel.

References

1. Khitrov, G., Use of inexpensive dyes to calibrate and adjust your microarray printer. *BioTechniques* **30**, 748 (2000).
2. Eisen, M.B. and Brown, P.O., DNA arrays for analysis of gene expression. *Methods in Enzymology*, **303**, 179-205 (1999).
3. Schena, M., et al., Quantitative monitoring of gene expression patterns with a complementary DNA microarray. *Science*, **270**, 467-470 (1995).
4. Schena, M., et al., Parallel human genomic analysis: microarray-based expression monitoring of 1000 genes. *Proc. Natl. Acad. Sci. USA*, **93**, 10614-10619 (1996).
5. Schena, M., ed., *DNA Microarrays, A Practical Approach*, Oxford University Press (Oxford, England: 1999). Product No. D 6187.
6. Schena, M., ed., *Microarray Biochip Technology*, Eaton Publishing (Natick, MA: 2000). Product No. M 4309.

Related Products

<u>Product Name</u>	<u>Product No.</u>
SigmaScreen Coated Slides for Microarrays	S 7934
Poly-L-Lysine Coated Slides for Microarrays	S 1313
Standard Microarray Spotting Solution	M 1435
ArrayHyb Hybridization Buffer	A 7718
ArrayHyb LowTemp Hybridization Buffer	A 3095
Microarray Hybridization Wash Pack	M 2185
GenElute™ Mammalian Total RNA Kits	RTN-10 RTN-70 RTN-350
GenElute™ mRNA from Total RNA Kits	MRN-10 MRN-70
GenElute™ PCR Purification Kit	GEN-PCR

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