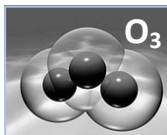




Ozone Control Systems for Microarray Laboratories

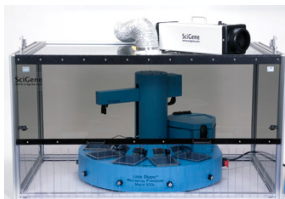


Ozone is a by-product of industrial pollutants that can destroy cyanine and other fluorescent dyes used with microarray samples. Studies have shown that ozone levels in ambient lab air as low as 20 ppb can negatively affect array data. Eliminating ozone is essential to assay reproducibility.⁽¹⁾ Other studies show that dyes are particularly sensitive to ozone during post-hybridization processing and during extended wait times in laser scanners.⁽²⁾ Degraded dyes can lead to varying results, confounding patient diagnostic outcomes.⁽³⁾

NoZone Workspaces are a reliable solution for controlling ozone during microarray washing and scanning. NoZone Workspaces are bench top enclosures with external, high efficiency ozone filtration systems that provide clean, ozone-safe, low light spaces for microarray work. SciGene provides three workspaces that maintain ozone levels below 5 parts per billion (ppb).

For Research Use Only

NoZone® WS Workspace



Shown with Little Dipper® inside.

Use with the Little Dipper Processor or for manual sample preparation and slide processing.

Outside: 25 x 46 x 29 inches (64 x 117 x 74 cm)
Inside: 24 x 44 x 26 inches (61 x 112 x 66 cm)

NoZone® TL Workspace

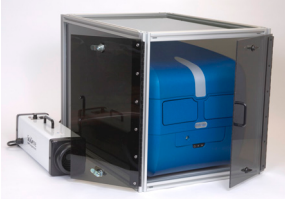


Shown with microarray scanner inside.

Use with Agilent or Roche NimbleGen microarray scanners or other equipment.

Outside: 44 x 41 x 28 inches (112 x 104 x 71 cm)
Inside: 42 x 40 x 26 inches (107 x 102 x 66 cm)

NoZone® GP Workspace



Shown with GenePix scanner inside.

Use with the GenePix Scanner Models 4000A/B, 4200AL or other small equipment.

Outside: 22 x 21 x 29 inches (56 x 53 x 74 cm)
Inside: 21 x 20 x 28 inches (53 x 51 x 71 cm)

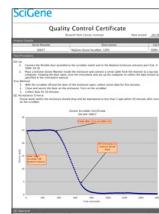
- Protects sensitive fluorescent dyes
- Eliminates costly re-tests due to ozone damage
- Sets up easily from pre-assembled panels
- No filters to replace
- Ozone Filtration Performance Certificate included

Success Story



"After moving the company to a location near the railroad lines in 2007, we began experiencing problems with our array data. We ultimately traced the problem to high levels of ozone in the lab from air pollution caused by the frequent trains that passed by. Fortunately, SciGene easily solved the problem by providing us with bench-top NoZone Workspaces to filter out the ozone. Our work with SciGene ultimately resulted in a joint publication on the effects of ozone on microarrays (J. Mol. Diagnostics 11;509 (2009))."

- Lisa Shaffer, Ph.D., FACMG, President
Signature Genomic Laboratories from PerkinElmer, Spokane, WA



Ozone Filtration Performance Certificate provided

Related Products



Little Dipper® Processor



Hybex® Microarray Incubation System

References

1. Elimination of laboratory ozone leads to a dramatic improvement in the reproducibility of microarray gene expression measurements. Branham, WS, et al. BMC Biotechnol. 2007 Feb 12;7:8.
2. Effects of atmospheric ozone on microarray data quality. Fare, TL, et al. Anal Chem 2003 Sep 1;75(17):4672-5.
3. Effects of Ozone Exposure during Microarray Posthybridization Washes and Scanning. Byerly, S. et al. Journal of Mol Diag, 2009 11: 590-597

Recent article on ozone effects available

Journal of Molecular Diagnostics, Vol. 11, No. 6, November 2009
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DOI: 10.2205/1052-2619-11060000

Effects of Ozone Exposure during Microarray Posthybridization Washes and Scanning

