ahn®

The Evolution of Alphanumeric Labelling in PCR Plates:

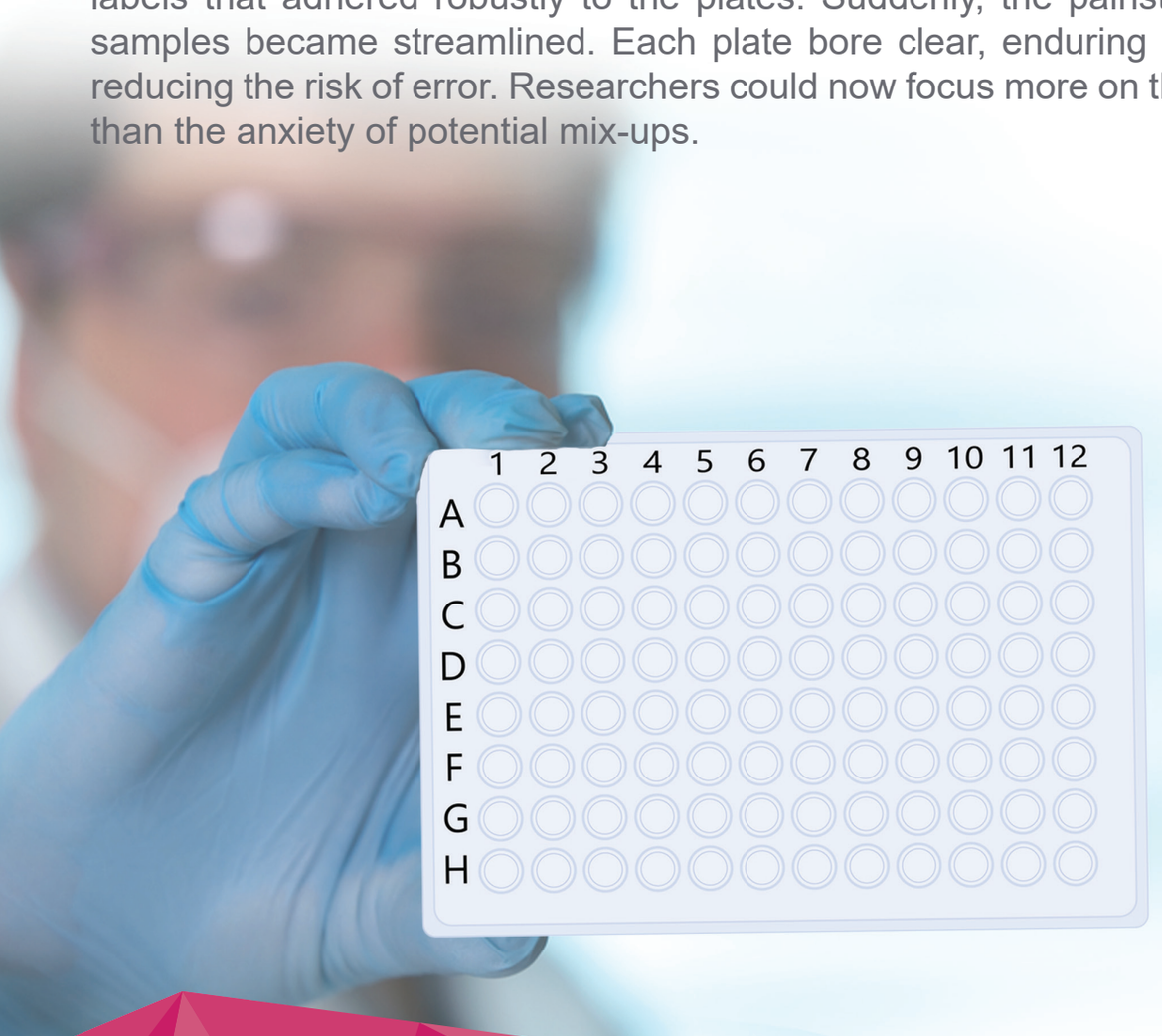
A Journey of Precision and Reliability

Introduction

In the bustling world of molecular biology, precision is the heartbeat of progress. In the early days, researchers relied on hand-written labels for their PCR plates, a method that, while functional, was fraught with risks. Inconsistent handwriting and fading ink often led to misidentifications and cross-contamination, jeopardizing entire experiments. The laboratory was a maze of confusion, with researchers double-checking their notes, fearing that a simple error could invalidate months of work.

As the field advanced, the introduction of basic inkjet printing brought a glimmer of hope. It provided a more uniform appearance and greater clarity than handwritten labels. However, this technology had its limitations. Ink could smudge or wash away when exposed to reagents, and the labels struggled to withstand the demanding conditions of the lab. Scientists remained on edge, anxious about the reliability of their sample tracking.

Then came a breakthrough: laser printing. This technology revolutionized the alphanumeric printing on PCR plates. Laser printers delivered precise, high-contrast labels that adhered robustly to the plates. Suddenly, the painstaking task of labelling samples became streamlined. Each plate bore clear, enduring identifiers, significantly reducing the risk of error. Researchers could now focus more on their experiments rather than the anxiety of potential mix-ups.



Achieve Precision with AHN PCR Plates: Unrivalled Alphanumeric Clarity and Durability for Your Experiments!

AHN PCR plates stand out in the realm of molecular biology by offering significant advantages through their innovative laser-printed alphanumeric labels. These labels are designed with exceptional durability and clarity, ensuring that they remain intact and fully legible throughout the entirety of experimental procedures. This is crucial in a laboratory setting, where precise identification of samples is paramount for accurate results and reproducibility.

One of the key features of AHN plates is their resistance to the rigors of harsh laboratory environments. The laser-printed labels on AHN PCR plates do not fade on peeling, even under exposure to various reagents and elevated temperatures. This durability is particularly important during the removal of adhesive films, as AHN plates show no traces of printing left behind. Such reliability minimizes the risk of mis-identification and cross-sample contamination, which can compromise the integrity of experimental outcomes.

AHN commitment to quality extends beyond just the labels. The design and material composition of these PCR plates are optimized for performance, ensuring consistent results across experiments. This focus on reliability makes AHN PCR plates an essential tool for researchers who prioritize meticulous scientific methodologies.

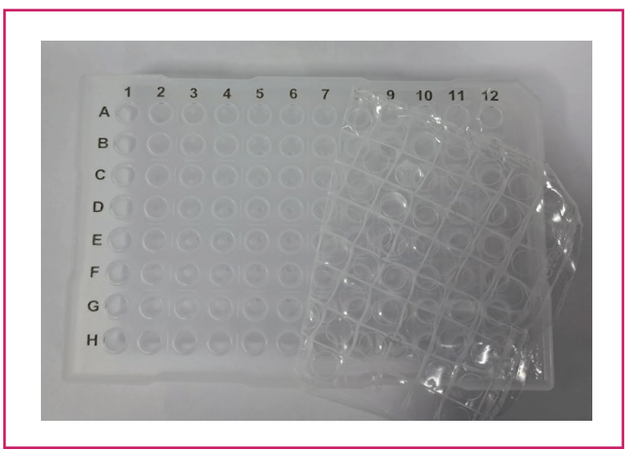
The combination of high-quality laser printing, robust durability, and superior clarity positions AHN PCR plates as the preferred choice for laboratories. By supporting accurate sample identification and enhancing data integrity, AHN plays a vital role in advancing research in molecular biology and related fields. Researchers can trust that with AHN, they are equipped with the tools necessary to achieve reliable and reproducible results, reinforcing their commitment to scientific excellence.

Procedure

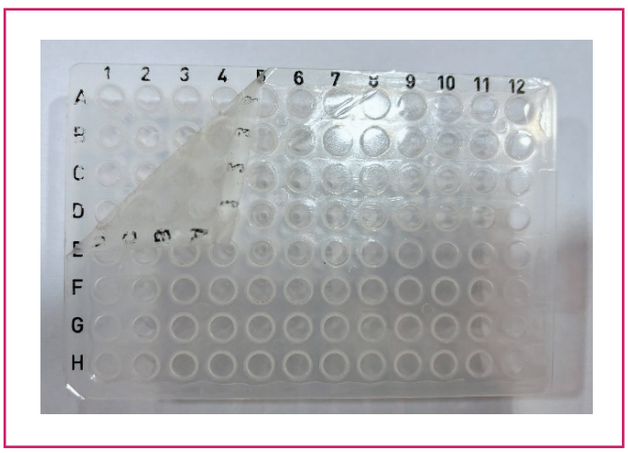
- PCR plates of AHN and competitor were utilized for setting up PCR reactions, each containing 20 µl of reaction mixture for the trial run in the thermal cycler.

- A random loading pattern was employed for each plate.

- All plates were sealed with AHN optical adhesive film.
- Endpoint PCR was conducted using various thermal cyclers, following the standard amplification protocol that includes denaturation, annealing, and extension. The temperature changes were executed at a ramp rate of 4 degrees per second.
- After PCR, the plates were removed from the thermal cycler, and the adhesive seals were carefully peeled away. Each plate was then visually inspected for any signs of fading or disappearance of the laser-printed alphanumeric.



Alphanumeric prints on AHN PCR Plate remain intact post PCR cycle while peeling the adhesive film.



Alphanumeric prints on Competitor's PCR Plate came off post PCR cycle while peeling the adhesive film.

Conclusion

The laser-printed alphanumeric on AHN PCR plates demonstrated superior durability and clarity, remaining intact and fully legible throughout the experimental process. Compared to competitors in the market, this high level of performance highlights the advantages of AHN PCR plates, offering better resistance to harsh laboratory conditions and ensuring more reliable sample identification. This reliability underscores why AHN PCR plates with laser-printed alphanumeric are a preferred choice for maintaining the integrity and reproducibility of experimental results.