



Scale Your NGS Operations with **icon96™** Where Intelligence Meets Automation

Transform Your High-Throughput Lab into a Precision Powerhouse

The icon96 thermocycler with AutoNorm™ software represents a paradigm shift for production-scale genomics labs. While other instruments force you to choose between automation and data quality, n6 and icon96 deliver both—seamlessly integrating into your existing workflows while dramatically reducing the dropouts and variability that plague high-throughput NGS operations.

- > WGS
- > WES
- > Target Capture
- > Amplicon panels

Effortless Automation & Integration

Drop-in compatibility that works with your existing ecosystem

- **Universal liquid handling robot compatibility** - Works seamlessly with Beckman, Hamilton, Tecan, Opentrons, and other major liquid handling platforms
- **Fully skirted plate accommodation** - Standard 96-well format fits directly into your current automation setup without modifications
- **Streamlined API integration** - Comprehensive software API enables autonomous operation within private networks, with endpoints for device control, protocol management, and real-time experiment monitoring
- **RESTful API architecture** - JSON Web Token authentication, rate limiting, and standardized HTTP endpoints ensure secure, reliable integration with existing LIMS and workflow orchestration systems
- **Real-time status monitoring** - Track device state, drawer position, and experiment progress through dedicated API endpoints for seamless workflow coordination



Figure 1. icon96, the world's first real-time thermocycler with 96 individually controlled wells.



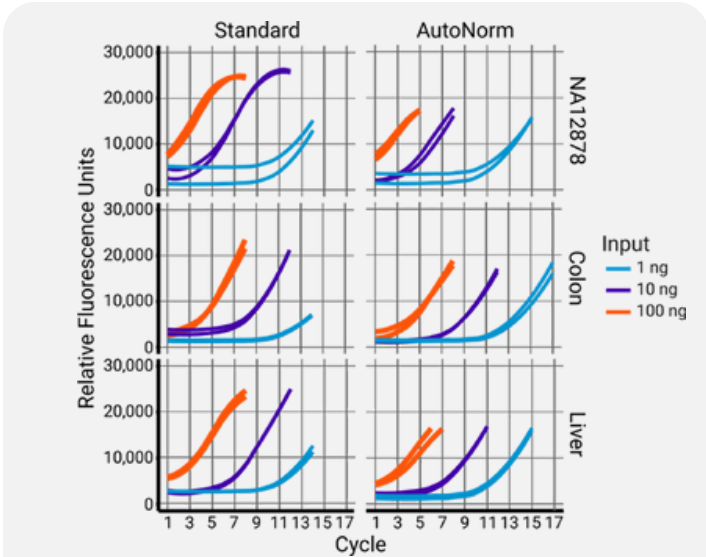
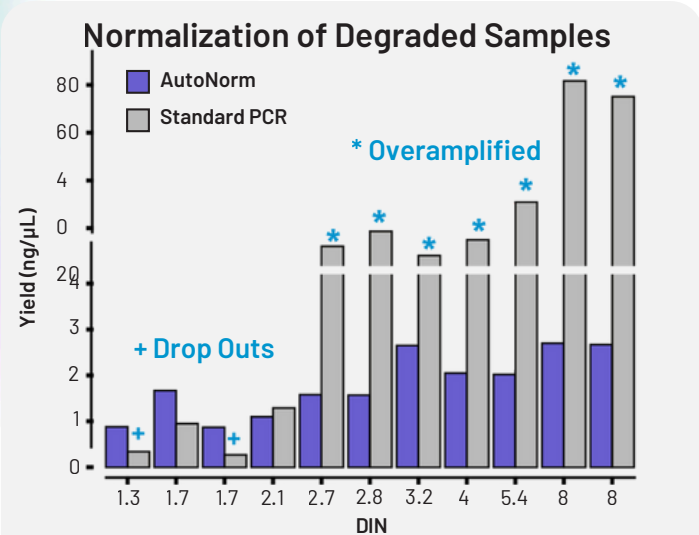
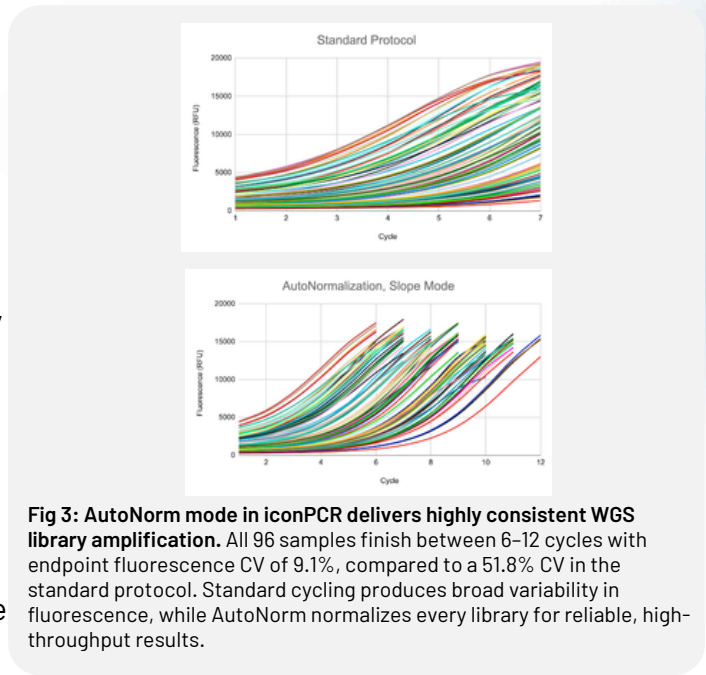
Superior Data Quality for High-Throughput Production

Eliminate the costly dropouts that derail production timelines

The dirty secret of high-throughput NGS labs is that sample failures during library preparation create massive bottlenecks. When libraries under-amplify or over-amplify, they drop out of sequencing pools, forcing expensive reruns and delaying critical timelines. Standard PCR approaches produce variable results across samples, with some failing entirely while others become overamplified and unusable.

AutoNorm changes the game by rescuing failing samples in real-time:

- **Prevent library dropouts** - Where standard PCR fails, AutoNorm provides additional amplification cycles exactly when needed
- **Eliminate overamplification artifacts** - Real-time fluorescence monitoring stops each reaction at optimal amplification, preventing the chimeras and PCR duplicates that compromise data quality
- **Consistent library yields across variable inputs** - From degraded FFPE samples to pristine DNA, AutoNorm delivers uniform output concentrations regardless of input quality
- **Reduce sequencing bias** - Balanced libraries mean balanced sequencing reads, eliminating the wasted capacity from overrepresented samples





Reduce Waste & Environmental Impact

Sustainability at scale without compromising performance

n6 delivers significant reductions in consumable waste and resource consumption:

- **24 fewer touch points** - Streamlined workflow eliminates multiple QC and normalization steps
- **>3 hours reduction in hands-on time per 96-sample batch** - Less technician time means lower labor costs and faster turnaround
- **Use of fewer plastic consumables** - Eliminate 96 individual library quantifications, normalizations, and cleanups per plate
- **Per 96-library batch** - Process libraries with 96% fewer pipette tips and reagent tubes compared to standard workflows



Figure 5. Eliminated plastics and reagents per 96-well run



Increase Throughput, Reduce Time & Cost

Time Savings:

- Process 96 libraries in a single 3-hour automated run vs. multiple batches across different instruments
- Eliminate bottlenecks from individual sample quantification and normalization steps
- Reduce total workflow time from sample to sequencing-ready libraries by 60%

Cost Reduction:

- **Reagent efficiency** - 40-60% reduction in consumable costs through optimized cycling and simplified workflows
- **Labor optimization** - Free up expert technicians from repetitive QC tasks to focus on higher-value activities
- **Reduced rerun costs** - Fewer failed libraries means fewer expensive sequencing reruns and sample replacements


Throughput Enhancement:

- Scale from hundreds to thousands of samples per week with the same staffing
- Parallel processing capabilities eliminate the need to batch samples by input concentration or quality
- Automation-ready design ensures consistent performance whether processing 8 samples or 384 samples per day

Ready to Transform Your Production Lab?

iconPCR isn't just another thermocycler—it's the intelligent automation solution your high-throughput lab needs to deliver consistent, high-quality results at scale. From core facilities processing diverse sample types to production labs with stringent timelines, iconPCR integrates seamlessly while dramatically improving your bottom line.

Contact n6 today to schedule your consultation and discover how iconPCR can revolutionize your NGS production pipeline.

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