



TORONTECH

REAL-TIME PCR SYSTEM (QPCR) - QUANTITATIVE THERMAL CYCLER TT- Q320T



Real-Time PCR System (qPCR) – Quantitative Thermal Cycler TT-Q320T features a 32-well capacity and a 4-channel configuration, making it ideal for medium-throughput laboratories. Its innovative optical fiber detection system ensures faster imaging and significantly reduces overall cycling time, enhancing efficiency.

APPLICATIONS

The Torontech TT-Q320T is engineered to bring the power of real-time PCR to laboratories that require flexibility and efficiency for smaller to medium-sized sample batches. It provides highly sensitive and specific quantitative analysis of DNA and RNA, making it the ideal solution for targeted diagnostics, assay validation, and focused research projects where running a full 96-well plate would be inefficient and costly.

This versatile system is perfectly suited for critical applications in:

- **Veterinary & Small Clinical Diagnostics:** For targeted pathogen detection in companion animals and livestock, or for smaller clinics running specialized molecular diagnostic panels where rapid, accurate results for a limited number of samples are needed daily.
- **Academic & Research Laboratories:** As a personal or small-group instrument for routine gene expression analysis, genotyping, and for the development and optimization of new qPCR assays before scaling up to larger platforms.
- **Food Safety & Quality Assurance:** To perform routine, targeted quality control tests, such as verifying the absence of a specific pathogen (e.g., *Listeria*), confirming species authenticity, or quantifying a single GMO trait in smaller production batches.
- **Biotechnology Start-ups & Assay Development:** For R&D labs focused on developing new diagnostic kits or molecular assays, providing a cost-effective platform for the iterative process of testing, validation, and refinement.

FEATURES

- Medium-throughput capacity for diverse workflows
- Exceptional sensitivity for accurate results
- Rapid time-to-result for efficient processing
- Advanced optical system with multiple fluorescent channels
- Precise and consistent temperature control
- Cost-effective solution for budget-conscious labs
- User-friendly software with multiple data analysis modes
- Broad application range for research and diagnostics
- Support for collaborative research initiatives
- Reliable customer support for continuous operation

TECHNICAL SPECIFICATIONS

Model	TT-Q320T
Product Description	32-well Real-Time PCR instrument with 4 dye channel filters & 8-inch touchscreen
Sample Capacity	32-well, 0.2mL block
Compatible Plates/Tubes	8-well strip tubes, single tube
Reaction Volume	20–120 µL
Excitation Source	LED
Excitation Range	475–620 nm
Detection Method	Photodiodes
Detection Range	515–670 nm
Detection Channels	4

Model	TT-Q320T
Temperature Range	4–100°C
Average Heating/Cooling Rate	3.5°C/sec / 3.0°C/sec
Maximum Heating/Cooling Rate	5.0°C/sec / 4.5°C/sec
Temperature Uniformity	±0.25°C
Temperature Accuracy	±0.15°C
Detection Sensitivity	1 copy
Sensitivity	Detect differences as small as 1.5-fold in target quantities in singleplex reactions
Dynamic Range	10 logs of linear dynamic range
Footprint (W x D x H)	37.0 x 28.0 x 25.0 cm
Weight	9.7 kg



Torontech Inc.

251 Consumers Road, Suite 1200
Toronto, Ontario, M2J 4R3, Canada 🇨🇦

Phone: +1 416 368 2721 | Fax: +1 416 981 7652
Email: info@torontech.com

Torontech, LLC

601 Brickell Key Drive, Suite 700
Miami, FL 33131, USA 🇺🇸

Toll-Free: 1-866-383-7919
Email: sales@torontech.com

Torontech ME FZE

Meydan Grandstand, 6th Floor,
Meydan Road, Nad Al Sheba,
Dubai-261440, UAE 🇦🇪

Phone: +971 488 19252
Email: me@torontech.com

