

## ABI 7500Fast Sequence Detection System (real-time qPCR)



Company: Life technologies (Former Applied Biosystems) ([www.lifetechnologies.com](http://www.lifetechnologies.com))

Description: The ABI PRISM® 7500Fast Sequence Detection System is a complete real-time PCR system that detects and quantitates nucleic acid sequences. Continuous wavelength detection from 500-660 nm allows the use of multiple fluorophores in a single reaction. Multicolor detection provides flexibility for multiplex quantitation assays, allelic discrimination assays, and plus/minus assays. Precision optics, combined with a sophisticated multicomponenting algorithm, provide accurate, highly-reproducible results. Peltier-based, 96-well block thermal cycling system is easy to use with standard 96-well plates or 0.1 mL tubes. Proven assay development guidelines save time and money.

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General guidelines: The machines are available for users of the Center for Clinical Studies; an initial training session is required. Access and bookings (maximally 2 weeks in advance) are generally available at any time (routine diagnostic has the precedence at least on one of the machines) unless otherwise stated on the calendar. Please stick strictly to the reserved times. Cancellations must be received 1 day in advance. In case of misconduct, the management of the ZKS reserves the right to restrict future use of the instruments.

**Pricing:** According to discounts and reagent used the price is a 0.5 to 1.5 CHF for a PCR reaction and 1.- to 2.5 CHF for a RT-PCR reaction. Consumables have to be supplied by the user.

**Technical specifications:** Peltier-based system, 96-well block (0.1 ml Plates/tubes. )  
Temperature uniformity:  $\pm 0.5^{\circ}\text{C}$  within 30 seconds of clock start  
Excitation source: Tungsten-Halogen  
Filters/Colors: 5 filter sets calibrated for FAM<sup>™</sup> /SYBR<sup>®</sup> Green, VIC<sup>®</sup>/JOE<sup>™</sup>, NED<sup>™</sup> /TAMRA<sup>™</sup> /Cy3<sup>®</sup>, ROX<sup>™</sup> /TEXAS RED, Cy5<sup>®</sup> dyes.  
Detection: CCD Kamera  
Supported chemistry: TaqMan<sup>®</sup> Gene Expression & Quantitation Assays supported in Fast Mode; SYBR<sup>®</sup> Green dye, TaqMan<sup>®</sup> probes in other modes. Capable of running other chemistries.

**Advantages/disadvantages:** In real-time PCR, cycle-by-cycle detection of accumulated PCR product is made possible by combining thermal cycling, fluorescence detection, and application-specific software in a single instrument. Quantitative results are available immediately after PCR without additional purification or analysis. Real-time quantitative PCR offers linear quantification of input template over a broad range, low template consumption, fast throughput of large numbers of samples, and low contamination risk  
Two instruments are equipped with the software version 1.4.0.25. One instrument is equipped with the software version 2.0.6. It is advisable to use always the same software per project.

**Alternatives:** Corbett Rotor Gene 6000