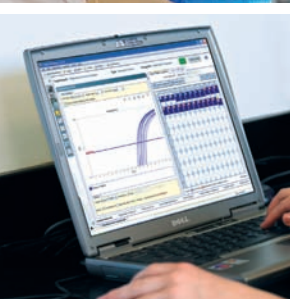
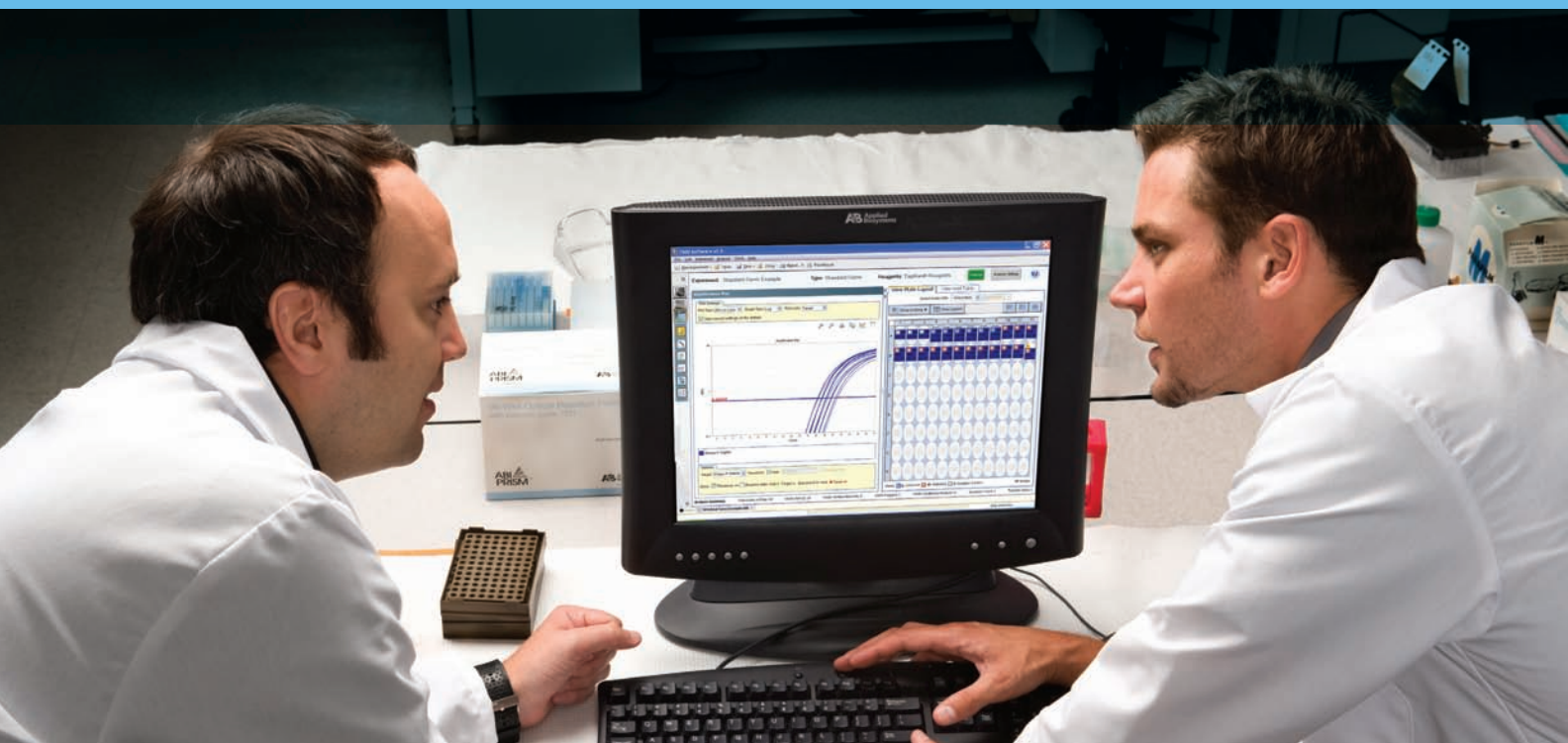


# Applied Biosystems 7500 Fast, 7500 and 7300 Real-Time PCR Systems

*Real Fast. Real Versatile. Real Value. Real choices from the leader in real-time PCR.*



# The latest innovations in Real-Time PCR, built on a solid reputation for excellence



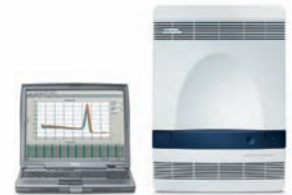
Since we pioneered real-time PCR over a decade ago, Applied Biosystems has continued to develop the technology to provide more powerful solutions to labs of all sizes.

Applied Biosystems offers a family of Real-Time PCR instruments with the 96-well block format. The Applied Biosystems 7500 Fast Real-Time PCR System represents the latest innovation in real-time technology—Fast thermal cycling, delivering high-quality results in as little as 30 minutes.

The Applied Biosystems family of real-time solutions combines innovative thermal cycling systems, powerful software, optimized reagents, your choice of off-the-shelf or custom assays, and superior support for a variety of applications. And, of course, all systems are backed by Applied Biosystems' unmatched track record of quality and long-term reliability.

# Real Fast

The Applied Biosystems 7500 Fast Real-Time PCR System



The Applied Biosystems 7500 Fast Real-Time PCR System offers maximum performance in the minimum time for labs running a variety of applications, including High Resolution Melting (HRM) analysis.

## Results in 30 minutes

Fully optimized for Fast cycling, the 7500 Fast System delivers high-quality results in as little as 30 minutes. The 7500 Fast System enables more runs per day with the excellent performance equivalent to that offered by the 7500 System.

The Applied Biosystems 7500 Fast System is the original Fast solution including validated Fast reagents and over 700,000 TaqMan® Gene Expression Assays.

## Built for speed

- Specially designed Fast block ensures thermal uniformity at top speeds
- TaqMan® Fast Universal PCR Master Mix and Fast SYBR® Green Master Mix enable-rapid results with excellent assay performance equivalent to that of standard real-time PCR
- Fast optical plates ensure excellent precision in 5–30  $\mu$ L reaction volumes
- Fast ramp rates enable rapid results without compromising extension times or assay quality

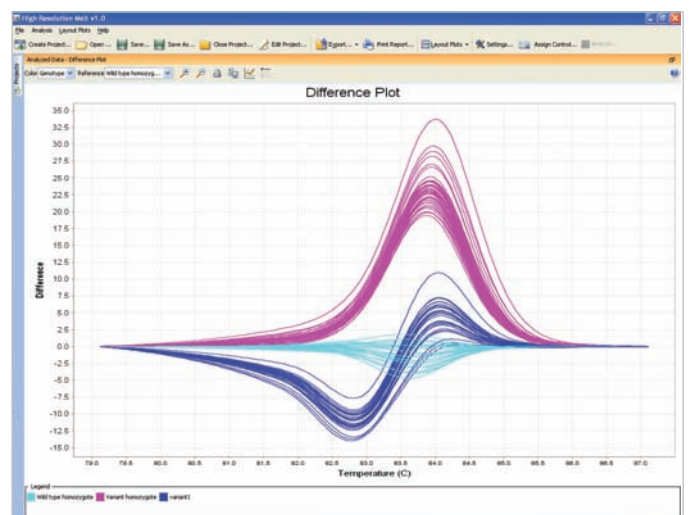
## Supports many applications

Applications include gene expression analysis, absolute quantitation, SNP genotyping and +/- assays utilizing internal positive controls. The 7500 Fast Real-Time PCR System is optimized for use with standard dye sets: FAM™/SYBR® Green I, VIC®/JOE™, NED™/TAMRA™/Cy3™, ROX™/Texas Red®, and Cy5™ dyes. The 7500 Fast can also be used for high resolution melting analysis using the new Applied Biosystems HRM Software.

To facilitate many of these applications, Applied Biosystems provides preformulated, ready-to-use, quality-tested, TaqMan® assays for use with the 7500 Fast System. Use these assays to reduce your assay optimization effort and expense.



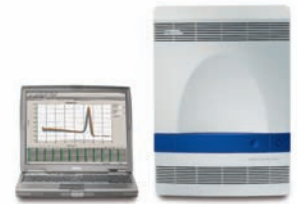
Amplification plot from a 7500 Fast system above shows results from a TaqMan Fast RNase P Instrument Verification Plate. Using this assay, the 7500 Fast platform can distinguish between samples containing 5,000 copies and 10,000 DNA template copies respectively, with a statistical confidence level of 99.7% and a run time of about 30 minutes.



Difference plot generated by Applied Biosystems' HRM Software. A 96 bp-long fragment of the human Keratin 23 gene containing a G>A variant was amplified from DNA samples and melted on the 7500 Fast System. Three replicates of each genotype are shown, wild-type homozygote A/A (green), variant homozygote G/G (red), and heterozygote G/A (blue).

# Real Versatile

The Applied Biosystems 7500 Real-Time PCR System



The Applied Biosystems 7500 Real-Time PCR System is a powerful platform for labs requiring superior performance and maximum dye versatility.

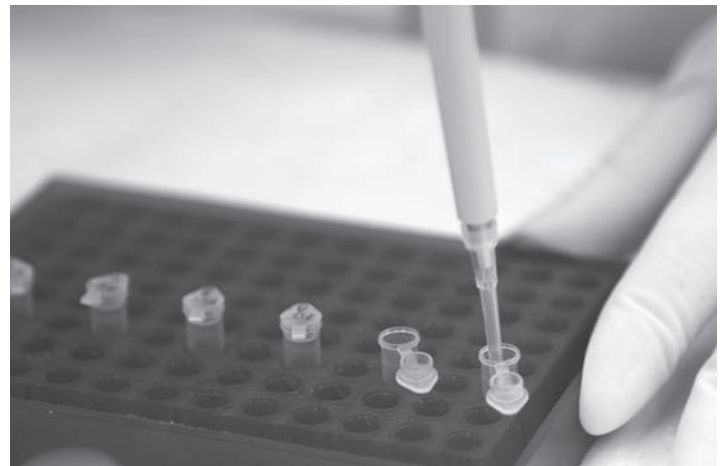
## Built for performance

- Powerful, five-color platform is calibrated for the broadest range of dyes available: FAM™/SYBR® Green I, VIC®/JOE™, NED™/TAMRA™/Cy3™, ROX™/Texas Red®, and Cy5™ dyes
- Specialized optical system enables easy and accurate calibration to accommodate new dyes without the addition of new filter sets
- Advanced multicomponenting algorithm minimizes spectral crosstalk – superior for multiplexing
- User-friendly software includes plate setup wizards, multi-plate data viewing capabilities, and advanced analysis tools to make data processing simple and straightforward
- Thermal cycling block is built into the body of the system to reduce environmental exposure and contamination risk

## The SDS v1.4 21 CFR Part 11 Module

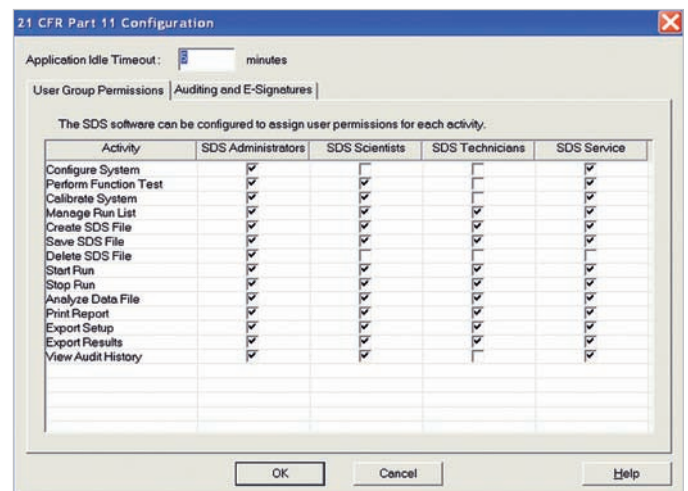
The SDS v1.4 21 CFR Part 11 Module is available for the 7500 and 7500 Fast Systems. This module is a powerful tool for assisting with 21 CFR Part 11 compliance while still offering the flexibility of user customizable configuration settings.

- Individual user log-ins can be added for up to four user groups, each group with designated permission settings
- User-customizable permission settings include fourteen system activities, e-signature authority designation, and additional security settings to give you maximum control over your compliance efforts
- Audit trails can be enabled or disabled depending on your traceability needs
- A selection of e-signatures is available to ease e-signatures into your workflow



## Complete validation solutions

Applied Biosystems offers IQ/OQ, a validation support solution. A certified Applied Biosystems Service Engineer will assist you with your Installation Qualification and Operational Qualification (IQ/OQ) or Instrument Performance Verification (IPV) process as part of your overall system validation.



Easy-to-use 21 CFR Part 11 configuration settings allow the custom configuration of user permissions and the ability to turn 21 CFR Part 11 features on and off.

# Real Value

The Applied Biosystems 7300 Real-Time PCR System



The Applied Biosystems 7300 Real-Time PCR System is an economical solution setting the standard for labs requiring a quality platform at an affordable price.

## Proven performance and superior data quality at an excellent value

The 7300 Real-Time PCR System balances exceptional quality with budget sensitivity. Advanced multicolor detection capabilities allow you to perform a wide variety of applications with the highest confidence in your results.

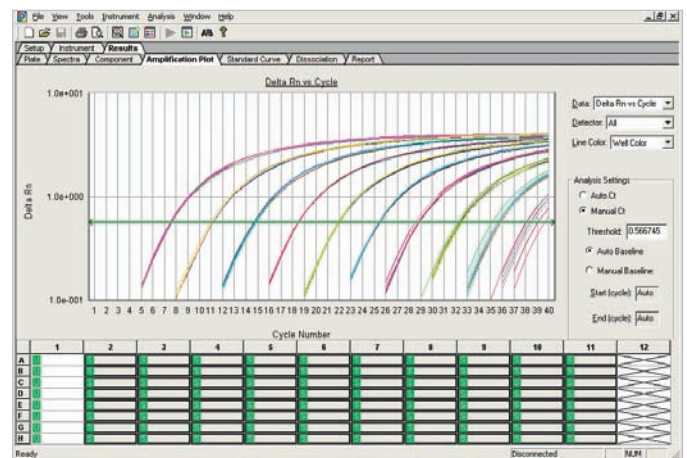
Applications include gene expression analysis, absolute quantitation, SNP genotyping, and +/- assays utilizing internal positive controls. The 7300 System is optimized for use with standard dye sets: FAM™/SYBR® Green I, VIC®/JOE™, NED™, TAMRA™, and ROX™.

## Built for flexibility

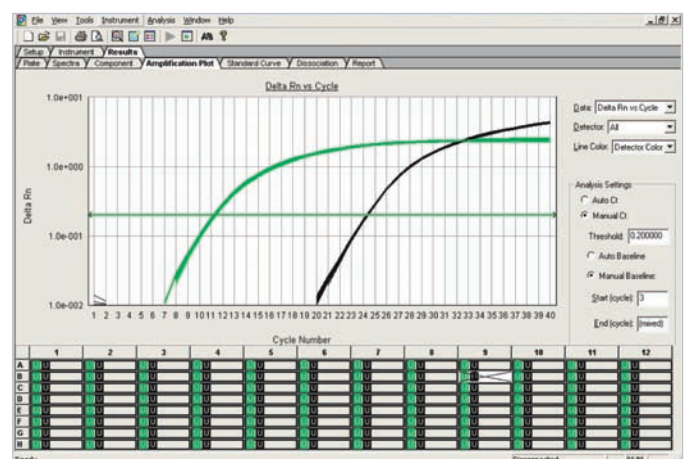
- Set up the plate before or after the completing the run
- Correct plate setup mistakes after the run without losing collected data
- One-click graphical export to PowerPoint or JPEG for top-notch presentations
- Flexible system can be used as a plate reader or a regular thermal cyclers
- Real-time amplification monitoring and protocol options enable extra PCR cycles to be added during a run
- Lamp-lifetime monitoring ensures highest possible instrument performance

## Results you can trust—every time

The Applied Biosystems 7300 System offers both proven reliability and superior data quality—exactly what you would expect from the leader in real-time PCR systems.



Log of change in normalized reporter fluorescence plotted against PCR cycle number. This plot from the 7300 System illustrates 9 logs of linear dynamic range for a TaqMan® assay of plasmid DNA containing the hCCNB1 target sequence in tenfold serial dilutions (hCCNB1 is human g2/mitotic specific cyclin b1, chromosome 5, 5q12).



Multiplexed TaqMan® assays on the 7300 System showing amplification of cDNA (96 samples) using probes labeled with VIC® (green) and FAM™ (black) reporters for the 18S and TGF-beta target sequences, respectively.

# Real Powerful

New 7500 Software v2.0

The Applied Biosystems 7500 Software v2.0 sets a new standard for simplicity and usability. This software features intuitive workflows that help you get expert results quickly and easily.

## 7500 Software v2.0 Software Highlights

- Design Wizard to walk you through experimental design
- Advanced setup option offers flexibility for more complex applications, such as multiplexing
- Quick-start setup option allows you to begin a run immediately and enter plate information later
- Pipetting protocols and recipes help you set up experiments quickly
- Troubleshooting flags to help you diagnose and resolve problematic experiments
- Email notification when a run is complete
- One-click graphical export to PowerPoint and JPEG

## New High Resolution Melting (HRM) Software

Use the Applied Biosystems High Resolution Melting (HRM) Software to perform more sophisticated melting analysis with an easy to follow workflow and minimal subjective data analysis steps. The HRM Software is available on the 7500 Fast Real-Time PCR System, which delivers precise results in a standard 96-well format.

- Shortens analysis time by autocalling genotypes and automatically omitting the no template controls
- Minimizes subjective analysis by automatically grouping unknown variant clusters
- Allows easy data review with customizable multi-plot views, expandable windows and one-click color assignment to highlight curves of interest
- Facilitates data presentation with the option to export data and graphs directly to PowerPoint or as JPEG files
- No temperature shift required — distinguish between homozygous mutants and wild type more easily

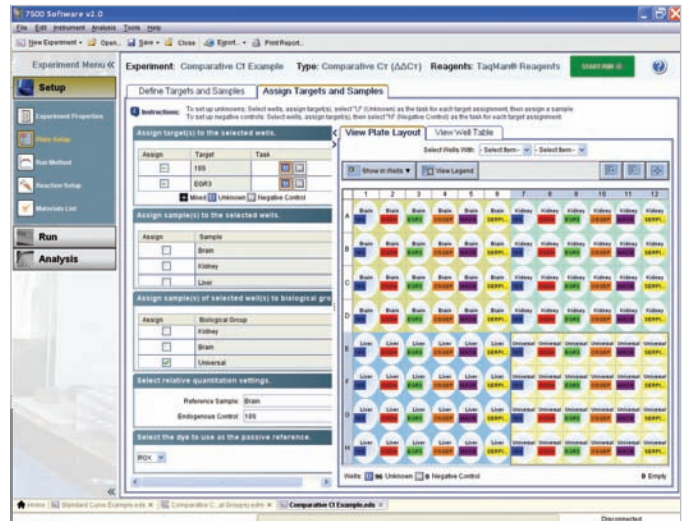
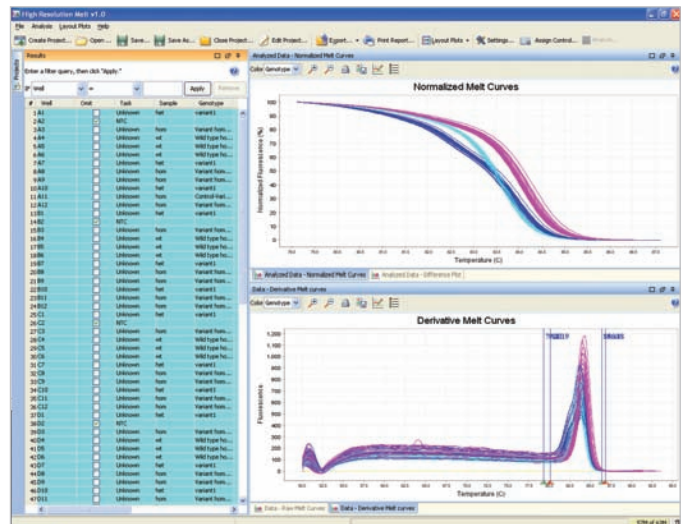


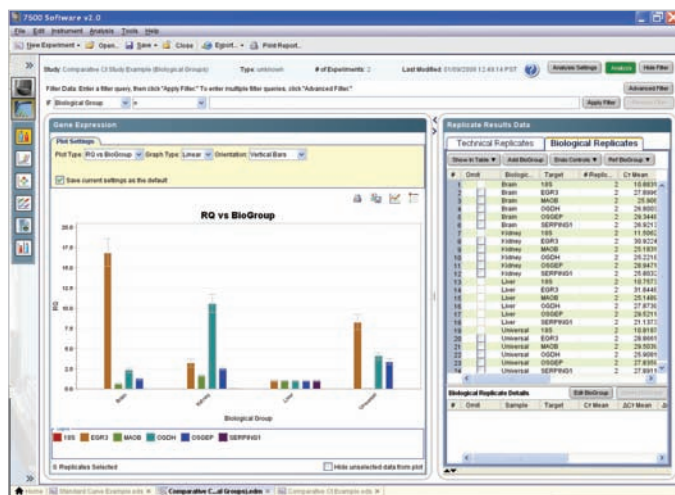
Plate setup wizard is streamlined for each application and walks you through unknowns, standards, and controls. Copy and paste sample names from Microsoft Excel. Save templates for future use—never set up the same plate twice.



The Applied Biosystems High Resolution Melting (HRM) Software is the easiest to use melting analysis software enabling real-time PCR melt curve assays to be used more accurately for mutation scanning and genotyping.

## More Powerful Gene Expression Study Package

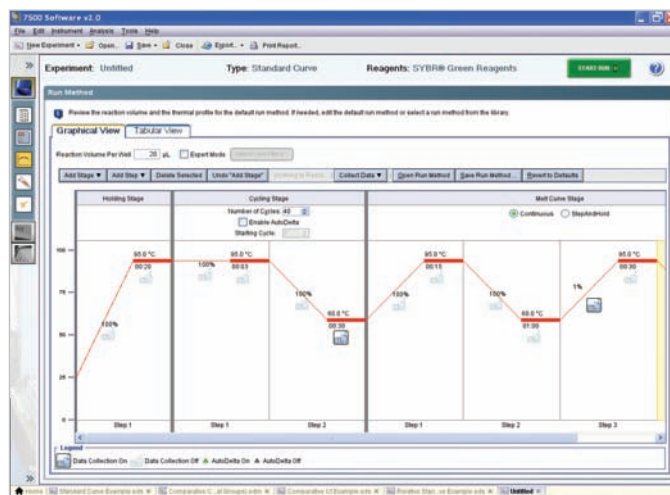
- Import an unlimited number of Comparative Ct (Relative Quantitation) plates to one study
- View data by biological replicate group or technical replicate group
- Normalize to multiple endogenous controls
- Enter known efficiencies to adjust RQ values for each target
- View amplification plot, multicomponent plot and QC summary within the study to easily identify and eliminate outliers
- Preview the effect of modified analysis settings before permanently applying them to results



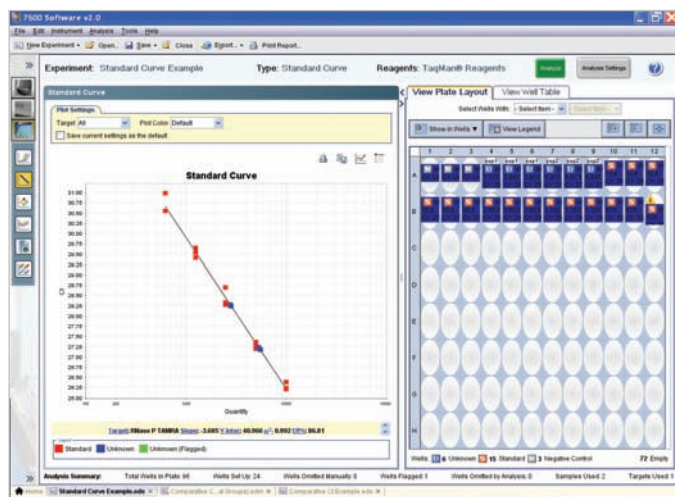
Gene Expression Study Package allows simultaneous analysis of unlimited 96-well plates of data without restricting viewing to dye-layer tabs. You can specify the color and order of gene targets, then export the graph directly to PowerPoint.

## Expanded Melt Curve Options

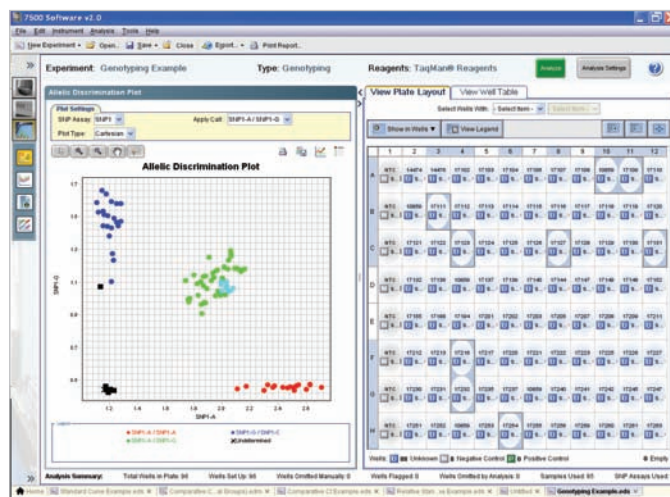
- Option to use either a continuous melt for standard post PCR melt curves, or step and hold melt curve for melting experiments that require more resolution and accuracy
- More flexible melt curve protocols allow you to customize the ramp rate, temperature span and data acquisition
- Identify the Tm of up to three melt curve products per well
- Melt curve data can be imported into the Applied Biosystems High Resolution Melting (HRM) Software for in depth analysis



Flexible melt curve options enable a variety of melting curve based applications, including HRM.



With the unknowns plotted on the standard curve, removal of outliers is simple and straightforward.



A SNP autocaller automatically determines genotypes, and generates an intuitive graphic representation of results in a cluster plot report that helps you view data across populations or samples.

# Real Convenient

## The whole genome at your service and ready to use

Applied Biosystems TaqMan® Genomic Assays are moving genetic discovery to the next level. Both public and Celera genomic information is used to design optimal primer and probe sets. Based on our 5' nuclease chemistry, these assays are ideal for both quantitative gene expression and SNP genotyping applications. All TaqMan Genomic Assays are provided in a single-tube format and designed to run using universal cycling conditions that require no additional optimization.

Our current offering of more than 700,000 TaqMan® Gene Expression Assays is a comprehensive collection of pre-designed primer and probe sets that enable researchers to quickly and easily perform quantitative gene expression studies on human, mouse, rat, monkey, dog, *Arabidopsis*, and *Drosophila* genes. Additionally, our collection of over 4.5 million TaqMan® SNP Genotyping Assays for human and mouse provide a flexible technology for detecting must-have SNPs.

To complement our offering of off-the-shelf products, our custom TaqMan® assays are the best solution for customer-specific gene expression or genotyping assays. Simply submit your sequence, using a secure and confidential ordering mechanism, and we will deliver a single-tube format of either your gene expression or genotyping assay for any species.

## TaqMan® Genomic Assays

You can search for TaqMan® Genomic Assays by gene symbol, public accession numbers, molecular function, or biological process. You can find more about TaqMan Gene Expression Assays at [www.allgenes.com](http://www.allgenes.com) and more about TaqMan SNP Genotyping Assays at [www.allsnps.com](http://www.allsnps.com). You'll also find useful data and valuable links to relevant references at both sites.

## Now you can take your real-time PCR as far as you need to go

To learn more about the new Applied Biosystems 7500 Fast, 7500 or 7300 Fast Real-Time PCR Systems, call 1.650.638.5800, or visit us on the Web at [www.appliedbiosystems.com](http://www.appliedbiosystems.com)

## ORDERING INFORMATION

| Description  | Part Number |
|--|-------------|
| 7300 Real-Time PCR System with Notebook Computer                       | 4351101     |
| 7300 Real-Time PCR System with Tower Computer                          | 4351103     |
| 7500 Real-Time PCR System with Notebook Computer and SDS Software      | 4351104     |
| 7500 Real-Time PCR System with Tower Computer and SDS Software         | 4351105     |
| 7500 Fast Real-Time PCR System with Notebook Computer and SDS Software | 4351106     |
| 7500 Fast Real-Time PCR System with Tower Computer and SDS Software    | 4351107     |
| 7500 Fast System Upgrade Kit   | 4362143     |
| 7500 System SDS v1.4 Software 21 CFR Part 11 Module                    | 4377354     |
| 7500 Fast System SDS v1.4 Software 21 CFR Part 11 Module               | 4377355     |
| Notebook Computer for 7300/7500/7500 Fast System                       | 4359286     |
| Tower Computer for 7300/7500/7500 Fast System                          | 4359284     |
| 17" Flat-Panel Monitor   | 4346944     |

## For Research Use Only. Not for use in diagnostic procedures.

### NOTICE TO PURCHASER

The Applied Biosystems 7300, 7500 and 7500 Fast Real-Time PCR Systems are real-time thermal cyclers covered by US patent claims and claims in their non-US counterparts, owned by Life Technologies Corporation. No right is conveyed expressly, by implication or by estoppel under any other patent claim, such as claims to apparatus, reagents, kits, or methods such as 5' nuclease methods. Further information on purchasing licenses may be obtained by contacting the Director of Licensing, Applied Biosystems, 850 Lincoln Centre Drive, Foster City, California 94404, USA.

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