PRIMETIME qPCR ASSAYS

Predesigned or custom assays for gene expression analysis

Flexible reporter options—choose from 5′ reporter and 3′ quencher dye combinations

Lowest possible background—multiplex confidently using double-quenched probes

Sequence transparency—know the complete sequence for every primer and probe you order

GUARANTEED RESULTS

PrimeTime™ qPCR assays are high performance 5′ nuclease probe (Figure 1) and intercalating dye assays designed to give you exceptional gene expression results. Easily select from predesigned assays for human, mouse, and rat. These specific and efficient predesigned assays are guaranteed to achieve 90% efficiency over 4 or more orders of magnitude, or we will replace them free of charge. Custom assays are also available and may be created for any DNA sequence from your species of interest using our PrimerQuest™ Tool.

SUPERIOR PERFORMANCE

PrimeTime qPCR Probe Assays are available as ZEN™ or TAO™ Double-Quenched Probes, which dramatically reduces background signal and increases sensitivity. When used in conjunction with PrimeTime Gene Expression Master Mix, high efficiency results from probe based two-step RT-qPCR are guaranteed to provide >90% efficiency. This master mix exhibits robust temperature tolerance for ambient shipping and benchtop stability (Figure 2).

Assays: Lower background, higher efficiency.

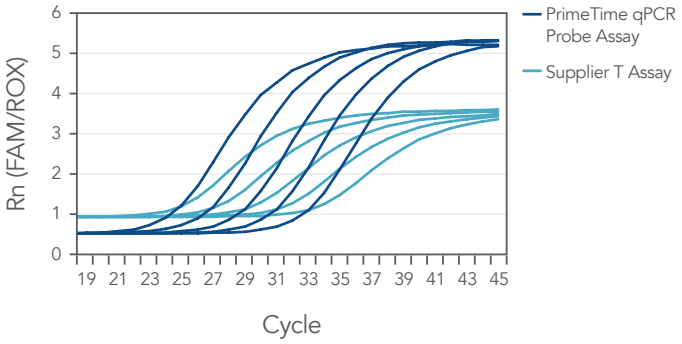


Figure 1. PrimeTime qPCR Probe Assays are more sensitive and have lower background than Supplier T assays. PrimeTime qPCR Probe Assays were compared to equivalent Supplier T assays using five, 4-fold dilutions of cDNA template and TaqMan® Gene Expression Master Mix (Thermo Fisher Scientific). Identical thresholds were set for all runs for comparison across assays. A comparison of Supplier T's *WDR3* (NM_006784) assay and the equivalent PrimeTime qPCR Probe Assay are shown.

Master mix: Exceptional thermal stability.

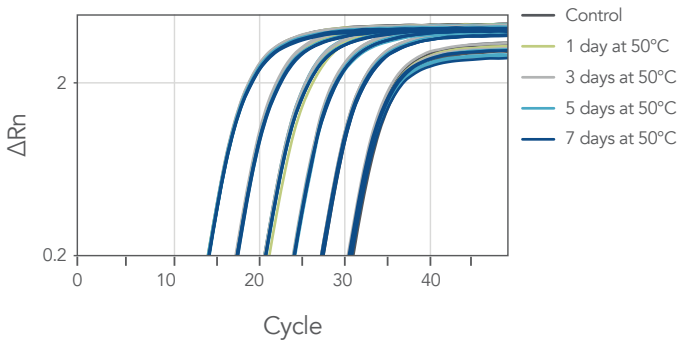


Figure 2. PrimeTime Gene Expression Master Mix provides efficient and consistent results, even after extended heat exposure. PrimeTime master mix was incubated at 50°C for 1, 3, 5, or 7 days, or stored at –20°C until use (control). Results shown are amplification plots from *HPRT* assays with a 7-point standard curve. The PCR plates remained at room temperature for 24 hr before running the thermal cycler.

WIDE RANGE OF FLUORESCENT DETECTION OPTIONS

Choose from a variety of reporter and quenchers dyes, including double-quenched probe options for the lowest background in the industry.

Table 1. Available 5′ fluorophore and quencher combinations for PrimeTime qPCR Probe Assay. For a complete listing of dye and quencher combinations see www.idtdna.com/primetime.

5′ reporter dye	3′ quencher dye	Mini 100 reactions†	Standard 500 reactions†	XL 2500 reactions†
FAM	ZEN/Iowa Black FQ*	•	•	•
FAM	TAMRA	—	•	•
SUN™	ZEN/Iowa Black FQ	•	•	•
HEX	ZEN/Iowa Black FQ*	•	•	•
TET	ZEN/Iowa Black FQ*	—	•	•
Cy® 5	TAO/Iowa Black RQ*	•	—	—

* ZEN/Iowa Black FQ and TAO/Iowa Black RQ are double-quenched probes, which provide superior performance compared to traditional single-quenched probes.

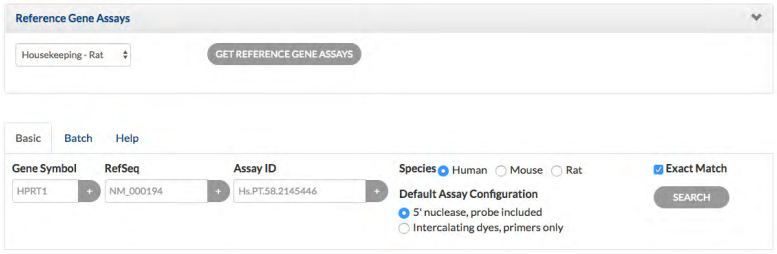
† Based on 20 µL reactions.

PrimeTime qPCR Primer Assays comprise a primer pair designed and premixed for real-time PCR using intercalating dyes, such as SYBR® Green (Life Technologies, Inc.) or EvaGreen® (Biotium) dyes (dyes not included). Primers are identical for a given assay, allowing easy transition from primer-only to probe-based assays.

EASY ONLINE ORDERING TOOLS

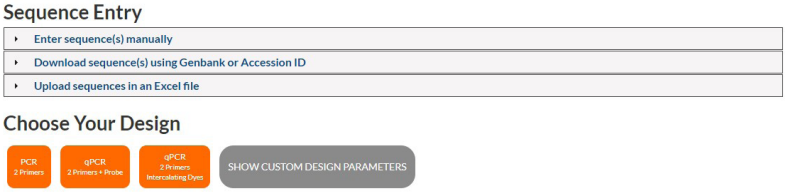
Order any assay you need. Our predesigned database allows for easy selection of both probe-based and intercalating dye–based assays for analysis of human, mouse, and rat transcriptomes. Custom assays may be designed for these, or any other species, using our PrimerQuest Tool.

Predesigned qPCR Assays



- Choose assays targeting human, mouse, or rat transcripts
- Rely on guaranteed performance based on robust *in silico* validation
- Select assays for detection of splice variants
- Easily include assays for housekeeping genes

Design a custom assay: PrimerQuest Tool



- Create assays for your species of interest
- Design assays suitable for your thermodynamic and reaction conditions
- Choose from preloaded design parameters for PCR and qPCR
- Simultaneously (batch) design assays targeting up to 50 sequences

> FOR ORDERING INFORMATION, VISIT **WWW.IDTDNA.COM/PRIMETIME**.

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