

PrimeTime qPCR Assays

Predesigned or custom assays for gene expression analysis

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 predefined assays for human, mouse, and rat. These specific and efficient predefined assays are guaranteed to perform, or we will replace them free of charge. Custom assays are also available and may be created for any species using our PrimerQuest Tool.

Superior performance

PrimeTime qPCR Probe Assays are available with IDT's unique double-quenched probes, which dramatically reduce background signal and increase sensitivity. When used in conjunction with PrimeTime Gene Expression Master Mix, high efficiency results from probe based two-step RT-qPCR are guaranteed. This master mix exhibits robust temperature tolerance for ambient shipping and benchtop stability (Figure 2).

benefits

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

Discover more at
www.idtdna.com/PrimeTime

Assays: Lower background, higher efficiency

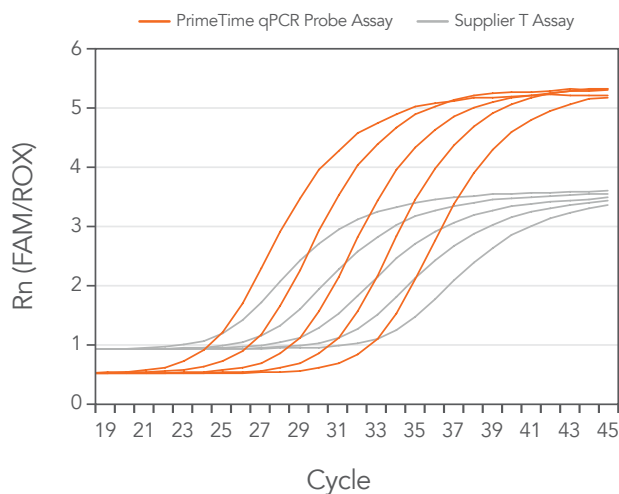


Figure 1. PrimeTime qPCR Probe Assays are more sensitive and have lower background than Supplier T assays. PrimeTime qPCR Probe Assays were compared to equivalent Supplier T assays using five, 4-fold dilutions of cDNA template and TaqMan® Gene Expression Master Mix (Thermo Fisher Scientific). Identical 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

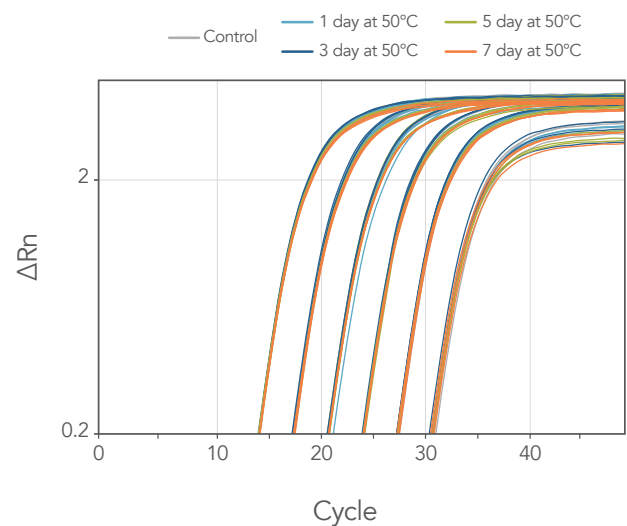


Figure 2. PrimeTime Gene Expression Master Mix provides efficient and consistent results, even after extended heat exposure. PrimeTime master mix was incubated at 50°C for 1, 3, 5, or 7 days, or stored at -20°C until use (control). Results shown are amplification plots from HPRT assays with a 7-point 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.

| 5' reporter dye | 3' quencher dye | Mini 100 reactions [†] | Standard 500 reactions [†] | XL 2500 reactions [†] |
|-------------------|--------------------|------------------------------------|--|-----------------------------------|
| FAM | ZEN/Iowa Black FQ* | • | • | • |
| FAM | TAMRA | — | • | • |
| HEX | ZEN/Iowa Black FQ* | — | • | • |
| TET | ZEN/Iowa Black FQ* | — | • | • |
| Cy [®] 5 | Iowa Black RQ | — | • | • |

* ZEN/Iowa Black FQ is a double-quenched probe, which provides superior performance compared to traditional single-quenched probes.

[†] 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 (Molecular Probes) 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

Ordering information

| Product | Size | Catalog # |
|--|----------|--|
| PrimeTime qPCR assays | Various | www.idtdna.com/PrimeTime |
| PrimeTime Gene Expression Master Mix (For use with probe-based assays only) | 1 x 1 mL | 1055770 |
| | 1 x 5 mL | 1055772 |
| | 5 x 5 mL | 1055771 |

License-free options for commercial or diagnostic use are also available.

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

