SuperArray
Bioscience Corporation

RT² qPCR Primer Assays

The Most Reliable SYBR® Green-based Real-Time qPCR Assays for Gene Expression Analysis

RT² qPCR Primer Assays are the most reliable gene expression analysis tool using SYBR Green-based quantitative real-time PCR technology. Each assay utilizes a proprietary and experimentally verified algorithm for designing gene-specific qPCR primers with uniform PCR efficiency and amplification conditions. Every RT² qPCR Primer Assay is subjected to rigorous experimental verification. Amplification of a single product of the correct size and high PCR efficiency (>90%) are guaranteed when the assays are used with the RT² qPCR Master Mixes. With high PCR efficiency and uniform PCR conditions, it is convenient to perform quantitative real-time PCR for several genes under the same PCR conditions.

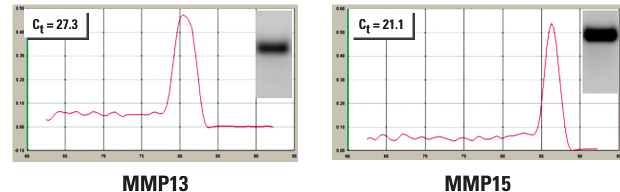
Benefits of RT² qPCR Primer Assays

- **High Performance:**
  Each RT² qPCR Primer Assay is experimentally validated to amplify a single amplicon of correct size at uniform PCR efficiency. The performance of RT² qPCR Primer Assays is similar to that of TaqMan® assays.

- **Complete Genome Coverage:**
  RT² qPCR Primer Assays are available for every human, mouse and rat gene. Their uniform PCR efficiency and PCR conditions allows easy transition from single gene analysis to multiple gene expression profiling.

- **Convenience:**
  With less than 5-minutes of hands-on time, RT² qPCR Primer Assays deliver guaranteed performance when used with optimized RT² qPCR Master Mixes. Master Mixes are available for all real-time PCR instruments.

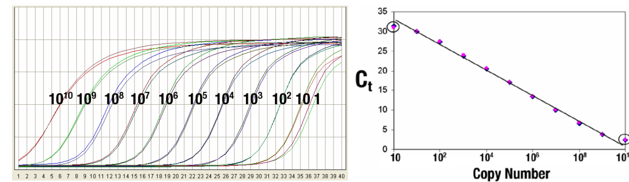
Verified Specificity



MMP13 MMP15

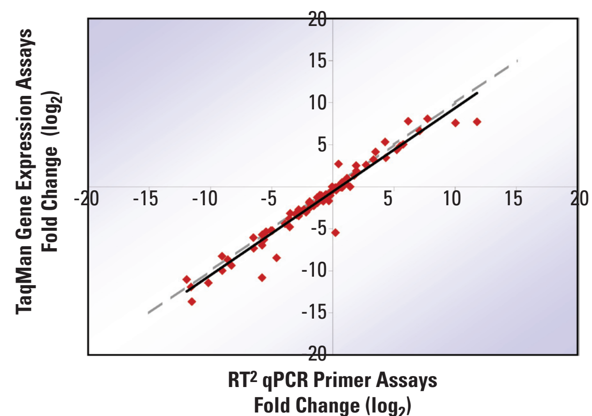
Each RT² qPCR Primer Assay is experimentally verified to yield a single dissociation curve peak and to generate a single amplicon of the correct size for the targeted gene.

Wide Linear Dynamic Range



Wide linear dynamic range enables simultaneous analyses for rare and abundant transcripts. Ten-fold serial dilutions of purified DNA were used as template in RT² qPCR Primer Assays. The qPCR was run in duplicate for each dilution point. The RT² qPCR Primer Assays detect from 1 copy to 10^{10} copies of template covering a linear dynamic range of up to eight (8) orders of magnitude.

Equivalent Performance to TaqMan Assays



A high concordance is observed between RT² qPCR Primer Assays and TaqMan Gene Expression Assays. Gene expression comparisons were made between two samples for 84 genes by the RT² qPCR Primer Assay method and the TaqMan Gene Expression Assay method. Fold changes (log_2) in expression for each gene are calculated and plotted against one other for the two methods. The gray dashed line represents a straight line with an ideal slope of 1.0. The solid black line shows the linear regression data fit. The Pearson correlation coefficient (R value) between the two sets of data is 0.97.