Gene Expression Analysis You Can Count On

Millions of qPCR assays readily available using pretested probes

Increase the specificity and robustness of your gene expression assay using transcript-specific Universal ProbeLibrary (UPL) probes. Benefit from a new type of hydrolysis probe chemistry, enabling extensive transcript coverage with only 165 pretested probes. Combined with the appropriate Roche real-time PCR master mix (see list on next page), UPL assays can be performed on a wide range of instruments.

- **Benefit from innovative technology**
  Eight to nine base pair long UPL probes containing methylene-bridged riboses known as Locked Nucleic Acids (LNAs), ensure specificity (see Figure 1).

- **Never wait for probe synthesis or delivery**
  Only 165 UPL probes are required for gene detection in entire transcriptomes; UPL probes are easily stored in your freezer, providing universal assay flexibility at all times.

- **Design real-time qPCR assays in seconds**
  Use free web-based ProbeFinder Software to quickly design the right probe and primer combinations for your gene assay.

**Produce high resolution dual-color experiments**

Use Universal ProbeLibrary Reference Gene Assays to easily quantify expression levels of human, mouse, or rat genes, relative to an endogenous reference gene in dual-color assays.

**Figure 1: Universal ProbeLibrary System.** UPL probes are available individually, or as complete sets covering whole transcriptomes, with assay designs produced using free ProbeFinder software. The special "locked nucleic acid (LNA)" chemistry, shown in the insert, allows precise hybridization using 8–9 base probes.
Simplify gene expression studies on any real-time PCR instrument.

UPL assays are compatible with all real-time PCR instruments detecting fluorescein, FITC, FAM and SYBR Green I (see Figure 2).

RealTime ready UPL assays: pre-filled plates for studying cellular pathways and gene families using 96- and 384-well formats.

Assays focused on specific cellular pathways and gene families are now easily done using the LightCycler® 480 System. RealTime ready Focus Panels are pre-plated with primers and probes: just add master mix and sample cDNA. All assays show high PCR efficiency, reproducibility, and dynamic range (see Figure 3). Each panel contains on-plate controls and reference genes permitting fast and easy evaluation of results.

For more information about Roche Applied Science’s complete line of tools for the gene expression analysis workflow, please visit our Gene Expression Analysis Special Interest site at: www.gene-expression.roche.com

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