

TWO-TAILED qPCR ASSAYS

A NOVEL METHOD FOR HIGHLY ACCURATE miRNA QUANTIFICATION

- › A highly specific, sensitive and cost-effective system
- › Detect down to ten target miRNA molecules
- › Improve discrimination between similar miRNAs

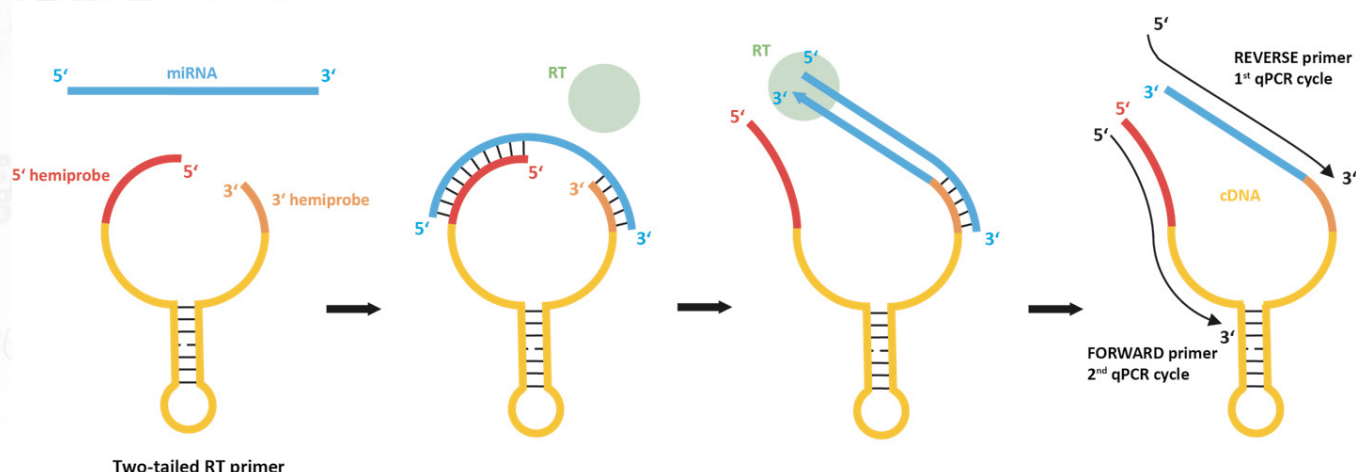
BACKGROUND

The challenge detecting small microRNAs is that two conventional PCR primers do not fit the target as their combined length is almost twice that of the microRNA. Older techniques have solved this by extending the microRNA. This compromises the assay sensitivity and specificity, as only one of the PCR primers sense the actual microRNA sequence; the other senses the generic extension. Furthermore, these methods fail to detect microRNAs modified in the 3'-end as it interferes with the extension process.

BioVendor miRNA Two-Tailed RT-qPCR assays offer a superior solution. Instead of using a single binding probe, Two-tailed PCR uses two hemiprobcs, that bind to different stretches of the microRNA, and are connected by a folded tether. While each hemiprobe alone is too short to bind the microRNA, when both are complementary they bind cooperatively.

ADVANTAGES

- › Binding is exceeding specific, as a mismatch is much more profound in a short hemiprobe
- › The cDNA formed can then be PCR amplified using two sequence specific primers
- › SYBR as well as hydrolysis probes can be used for detection
- › 1-tube color multiplexing is possible as well as high degree two-tube multiplexing of the RT followed by singleplex qPCR



For more information please contact us at info@biovendor.com.

RT-QPCR KITS

Assay design and validation for microRNA profiling

Two-tailed RT-qPCR assays are designed for microRNA targets specified by the client.

- › Dye-based two-tailed primer design
- › Specific miRNA detection and quantification using a unique cost-effective assay
- › Validated assays transferred to the customer for unlimited use

The current portfolio combines validated kits and on-demand developer assays for the specific miRNA quantitation. The assay is validated on both RT and qPCR level on synthetic microRNA.

Covered by patent No.: **PTC/US15/45966**

For more information see: www.biovendor.com/two-tailed-qpcr

SERVICE

Making miRNA measurements available to any researcher

Service providing microRNA determination performed by experts in a specialized laboratory

- › For scientists who cannot perform miRNA determinations in their own labs
- › The best opportunity to generate pilot data in the project preparation phase
- › Project planning support
- › Supervised by experts experienced in miRNA analysis
- › No investment needed

For more information see: www.biovendor.com/custom-services

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