

PreAmp Master Mix

Proportional target enrichment for gene expression analysis

- Preamplification proportional to cDNA input concentrations
- Comparable performance to other preamplification reagents
- Compatible with Delta Gene and TaqMan assays

Limited amounts of cDNA and RNA restrict gene expression analysis. Preamplification overcomes this restriction through multiplex amplification of up to 96 targets using a low primer concentration and a limited number of cycles. Under these conditions, the targets of interest are amplified without the introduction of amplification bias in 90 minutes (Devonshire et al. *BMC Genomics* 12 (2011): 118).

The new Fluidigm® PreAmp Master Mix is optimized for multiplex preamplification reactions with Delta Gene™ or TaqMan® gene expression assays performed in Dynamic Array™ IFCs.

PRODUCT DETAILS

- Optimized for Delta Gene and TaqMan assays
- Concentrated for small reaction volumes
- Complete compatibility with all Dynamic Array IFCs for gene expression on the Biomark™ and Biomark HD systems
- Optimized for use with cDNA generated by the Fluidigm Reverse Transcription Master Mix (PN 100-6298)

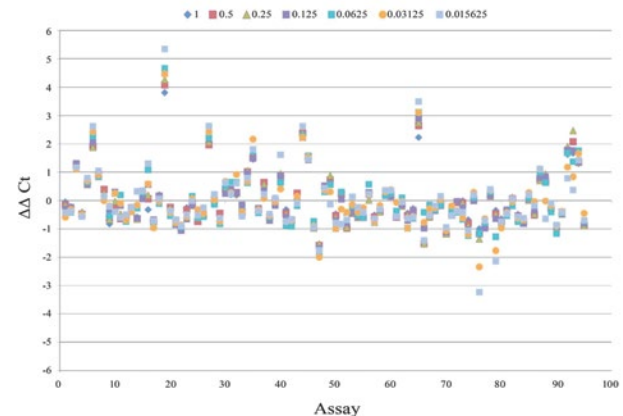


Figure 1. Proportional Preamplification
 Fluidigm® PreAmp Master Mix generates minimal preamplification bias and high correlation between C_q values for cDNA and preamplified cDNA across all Delta Gene™ assays on the Biomark™ HD system. Greater than 90% of assays were within $\pm 1.5 \Delta\Delta C_q$.

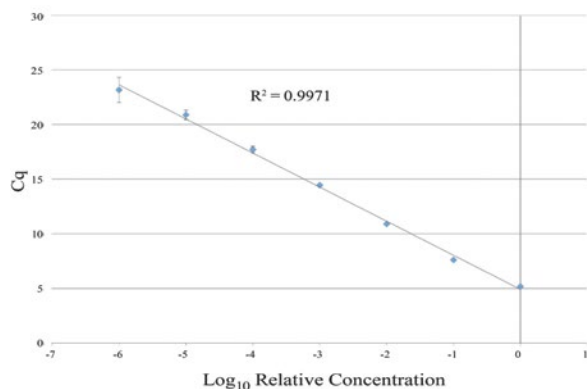


Figure 2. Linearity

The Fluidigm PreAmp Master Mix demonstrates linearity of C_q values as a function of the input cDNA concentration of the vimentin (VIM) Delta Gene assays ($R^2 = 0.9971$). Error bars are the standard deviation of three technical replicates.

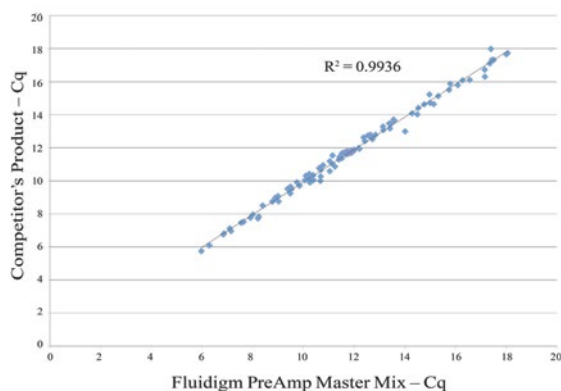


Figure 3. Concordance

The Fluidigm PreAmp Master Mix performs comparably to a competitor product. The scatter plot shows a comparison of C_q values obtained for cDNA preamplified with the Fluidigm PreAmp Master Mix (x-axis) and a competitor's product (y-axis), which demonstrates comparable performance across 96 Delta Gene assays ($R^2 = 0.9936$) on the Biomark HD.

SPECIFICATIONS

Multiplex capability	96 assays
Sensitivity	cDNA equivalent to 12.5 ng/ μ L RNA to <0.25 pg/ μ L RNA
Unbiased cDNA amplification	>90% of assays within $\pm 1.5 \Delta\Delta C_q$
Stability / storage requirements	1 year at -20° C
Reactions per tube	96

ORDERING INFORMATION

Product	PN
One tube PreAmp Master Mix—96 reactions	100-5580
Five tubes PreAmp Master Mix—480 reactions	100-5581

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