

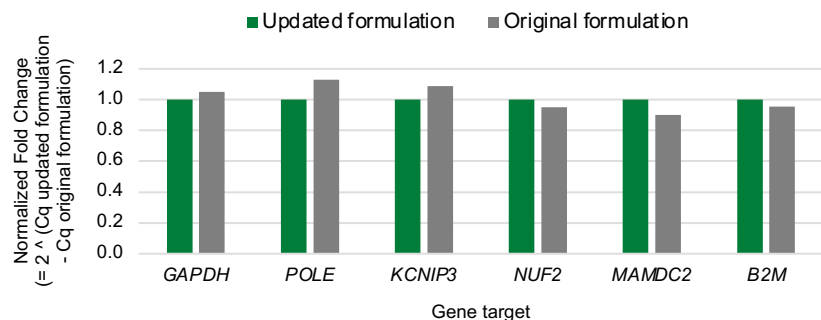
# Performance comparison of the updated and original formulations of Invitrogen™ SuperScript™ IV VILO™ Master Mix

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# Performance of SuperScript IV VILO Master Mix with different targets in RT-qPCR

## Applied Biosystems™ TaqMan™ Assay

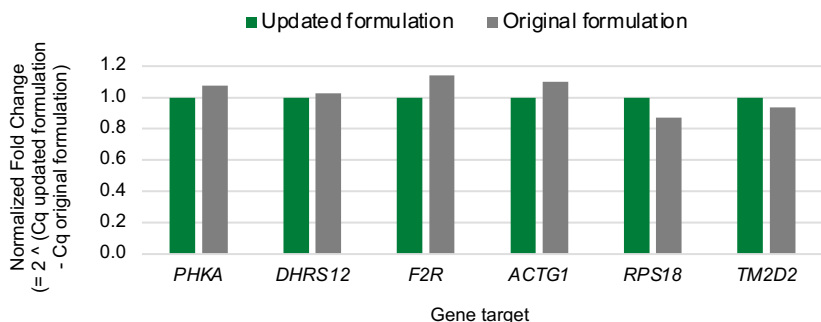


### Performance of SuperScript IV VILO Master Mix across different TaqMan Assay targets.

cDNA was synthesized from 100 ng (1 µg for KCNIP3 target) of HeLa-S3 total RNA input and analyzed with 6 different gene-specific primer sets in TaqMan Assays, using Applied Biosystems™ TaqMan™ Fast Advanced Master Mix. Higher normalized fold changes indicate higher cDNA yields.

**Original formulation—**  
SuperScript IV VILO Master Mix formulated with Triton X-100 detergent

## Applied Biosystems™ PowerTrack™ SYBR™ Green Assay



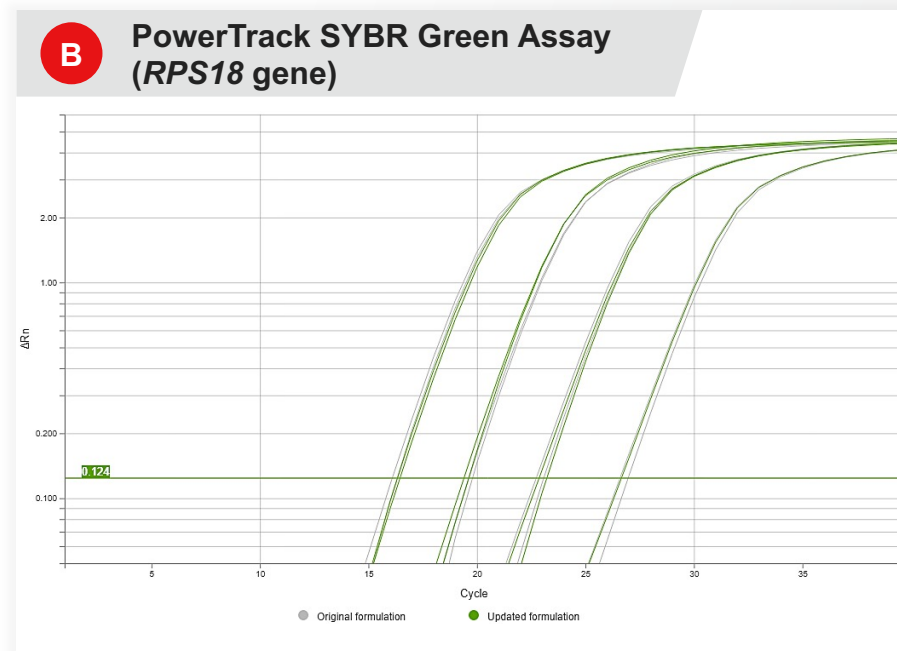
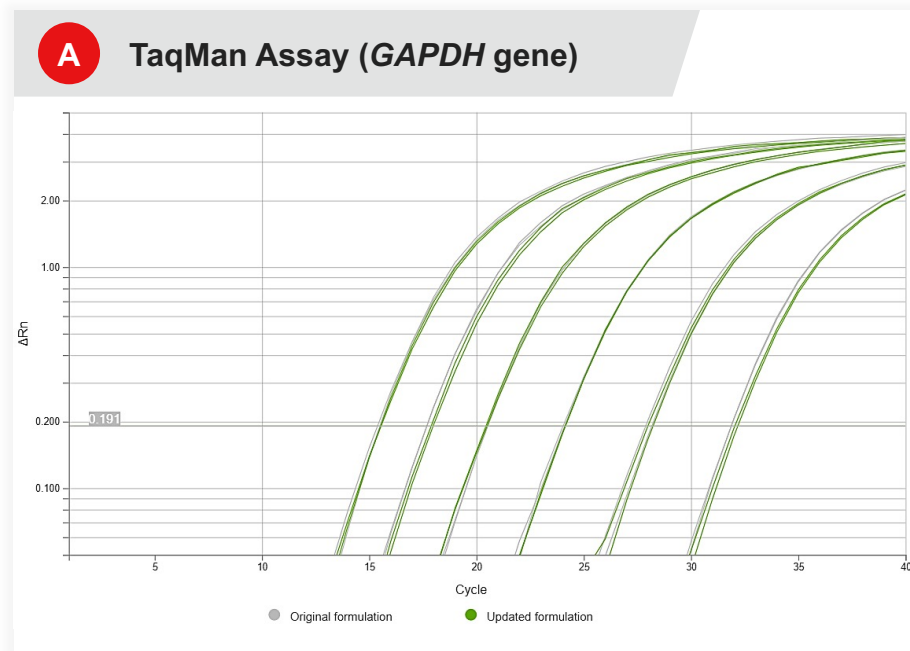
### Performance of SuperScript IV VILO Master Mix across different PowerTrack SYBR Green assay targets.

cDNA was synthesized from 100 ng of HeLa-S3 total RNA input and analyzed with 6 different gene-specific primer sets in PowerTrack SYBR Green assays, using Applied Biosystems™ PowerTrack™ SYBR Green Master Mix. Higher normalized fold changes indicate higher cDNA yields.

**Updated formulation—**  
SuperScript IV VILO Master Mix reformulated with an alternative detergent

The updated formulation of SuperScript IV VILO Master Mix retains performance equivalent to that of the original formulation of SuperScript IV VILO Master Mix.

# Dynamic range of RT-qPCR using SuperScript IV VILO Master Mix



**Original formulation—**  
SuperScript IV VILO Master Mix formulated with Triton X-100 detergent

**Updated formulation—**  
SuperScript IV VILO Master Mix reformulated with an alternative detergent

## Dynamic range of SuperScript IV VILO Master Mix.

cDNA was synthesized from gene targets **(A)** *GAPDH* with 1 µg to 10 pg and **(B)** *RPS18* with 10 ng to 10 pg of HeLa-S3 total RNA, using the updated (green) and original (gray) formulations of SuperScript IV VILO Master Mix. cDNA was analyzed with **(A)** TaqMan Fast Advanced Master Mix and **(B)** PowerTrack SYBR Green Master Mix.

*GAPDH*: E = 98.6%, R<sup>2</sup> = 0.988 (updated formulation); E = 99.1%, R<sup>2</sup> = 0.990 (original formulation).

*RPS18*: E = 93.6%, R<sup>2</sup> = 0.997 (updated formulation); E = 96.6%, R<sup>2</sup> = 0.997 (original formulation).

There is no difference in dynamic range of RT-qPCR between the updated and original formulation of SuperScript IV VILO Master Mix.

# Thank you

