

# KAPA SYBR<sup>®</sup> FAST ONE-STEP qRT-PCR KITS

One Evolved Polymerase. One Step. One Tube.

KAPA SYBR FAST One-Step qRT-PCR Kits are designed for optimal performance in stringent qRT-PCR reaction conditions, exhibiting dramatic improvements in sensitivity, specificity, reaction efficiency, and fluorescence. The kit is optimized for rapid one-step, one-tube RNA quantification, reducing experimental variation and contamination with a convenient qRT-PCR protocol.

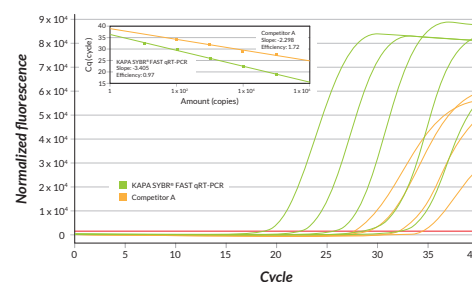
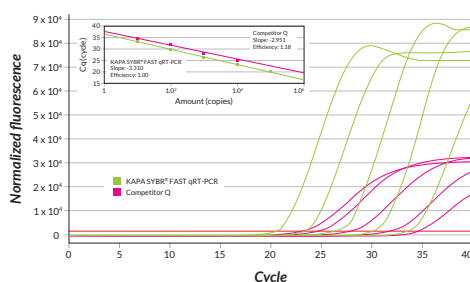
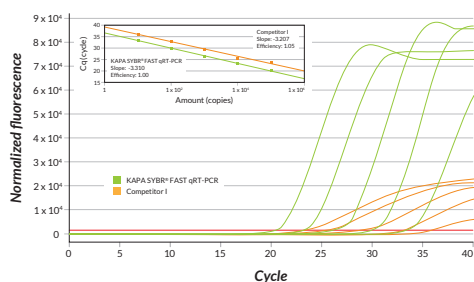
The kits contain M-MuLV reverse transcriptase, RNase inhibitor, and a novel DNA polymerase evolved via directed evolution.

Kits offer:

- SNP genotyping
- gene expression analysis
- microarray validation
- gene knockdown validation
- RNAi and miRNA research

## Increase signal and reaction efficiency

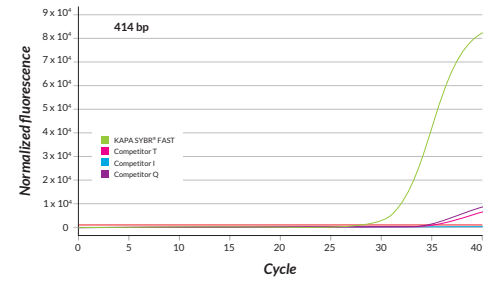
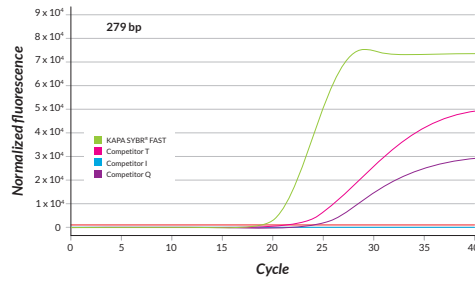
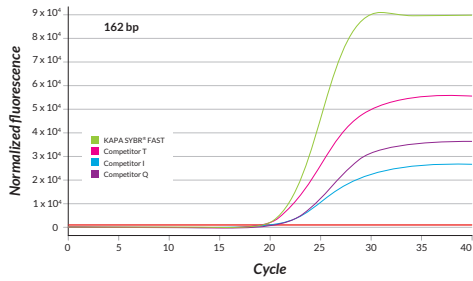
- Consistently higher amplification efficiencies for accurate qPCR
- Higher fluorescence, earlier Cq values and improved reaction efficiencies



RRMI gene (94 bp, 45.7% GC) amplified from 10-fold dilution series of RNA (100 ng to 10 pg per 20  $\mu$ L reaction) isolated from human placenta. KAPA SYBR FAST One-Step qRT-PCR Kit demonstrates earlier Cq values, higher fluorescence, and optimal reaction efficiencies.

# Amplify across a broad range of target lengths

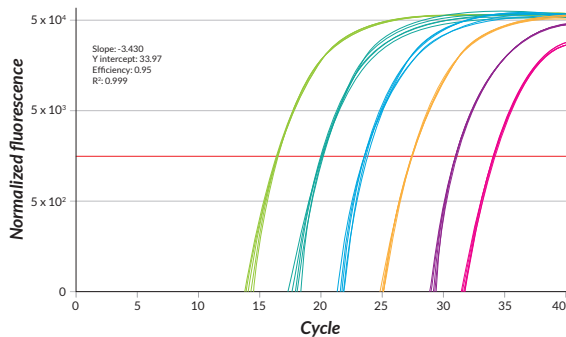
- Robust performance independent of amplicon size



MS2 bacteriophage RNA targets of increasing length were amplified at 0.8 pg per 20  $\mu$ L reaction. KAPA SYBR<sup>®</sup> FAST One-Step qRT-PCR Kit maintained high performance across all amplicon lengths.

# Improve sensitivity and reproducibility




- Accurate interrogation across a wide range of RNA template concentrations



279 bp fragment amplified in replicates of 6 from a 10-fold dilution series of commercial MS2 bacteriophage RNA (80 pg to 0.8 fg per 20  $\mu$ L reaction). Reaction efficiency of 95% calculated for all 6 replicates per data.

# Ordering Information

Roche Cat. No.	Kapa Code	Description	Kit Size
07959613001	KK4650	KAPA SYBR <sup>®</sup> FAST One-Step Universal	1 x 1 mL
07959621001	KK4651	KAPA SYBR FAST One-Step Universal	1 x 5 mL
07959630001	KK4652	KAPA SYBR FAST One-Step Universal	2 x 5 mL
07959656001	KK4660	KAPA SYBR FAST One-Step ABI Prism <sup>®</sup>	1 x 1 mL
07959664001	KK4661	KAPA SYBR FAST One-Step ABI Prism	1 x 5 mL
07959672001	KK4662	KAPA SYBR FAST One-Step ABI Prism	2 x 5 mL
07959702001	KK4670	KAPA SYBR FAST One-Step Bio-Rad iCycler <sup>™</sup>	1 x 1 mL
07959729001	KK4671	KAPA SYBR FAST One-Step Bio-Rad iCycler	1 x 5 mL
07959737001	KK4672	KAPA SYBR FAST One-Step Bio-Rad iCycler	2 x 5 mL
07959753001	KK4680	KAPA SYBR FAST One-Step for Roche LightCycler <sup>®</sup> 480	1 x 1 mL
07959761001	KK4681	KAPA SYBR FAST One-Step for Roche LightCycler <sup>®</sup> 480	1 x 5 mL

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