

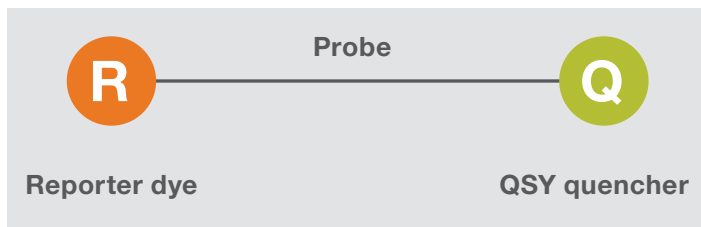


TaqMan QSY probes

Expand your multiplexing capability

qPCR assay design flexibility

Applied Biosystems™ TaqMan® QSY™ probes incorporate a proprietary nonfluorescent 3′ QSY quencher to provide maximal PCR performance in a multiplex format. Experience the sensitivity and specificity you know and expect from TaqMan® Assays with another great option for your real-time PCR (qPCR) assay designs.



Probe specifications	
Form	Liquid or dry
Includes	Probe set
5′ reporter dye options	Applied Biosystems™ FAM™, VIC™, ABY™, or JUN™ dyes
Purification	HPLC
Shelf life	12 months from manufacturing date
Green features	Less waste, sustainable packaging
Shipping condition	Room temperature

QSY probes offer seamless replacement for BHQ probes

Your current design that incorporates a Black Hole Quencher™ (BHQ™) probe can easily be converted to a design that incorporates a QSY probe. Identical sequence designs can be used with similar performance using FAM™ dye (Figure 1) and improved performance using our ABY™ dye (Figure 2).

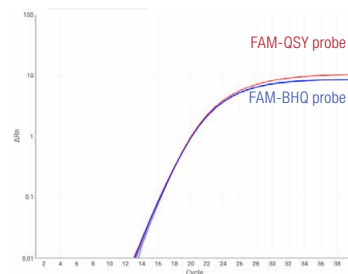


Figure 1. QSY probes have performance similar to that of BHQ probes. A FAM-QSY probe and a FAM-BHQ probe with identical oligonucleotide sequences have similar C_t values.

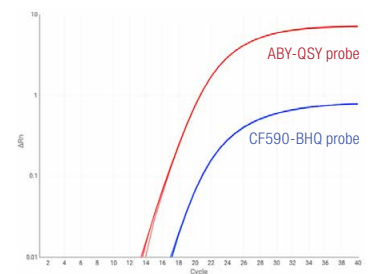


Figure 2. Improved sensitivity in multiplex qPCR. In this multiplex experiment, the ABY-QSY probe shows a significantly lower C_t than the CF590-BHQ probe with an identical oligonucleotide sequence.

Four dye options optimized for better sensitivity

TaqMan QSY probes can be ordered with FAM, VIC, and our proprietary ABY and JUN dyes, allowing amplification of up to four targets in a single reaction. All four dyes are optimized for the filter sets on Applied Biosystems™ qPCR instruments (Figure 3) and work together with minimal spectral overlap for optimal performance.

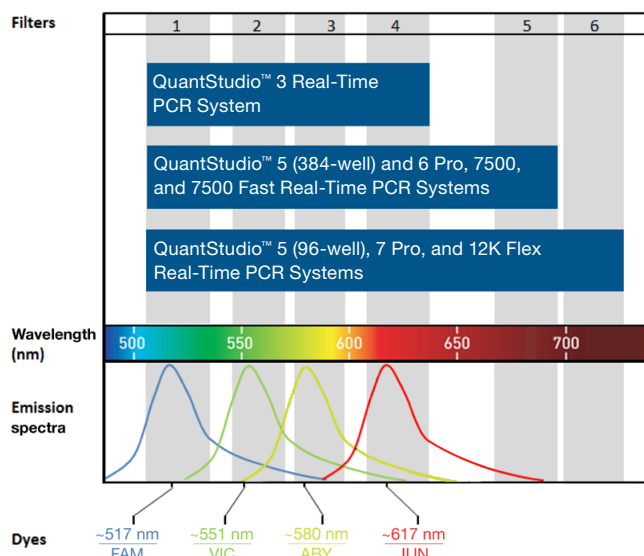


Figure 3. Fluorescence emission wavelengths used for multiplex qPCR. Emission spectra for FAM, VIC, ABY, and JUN dyes are shown in relation to regions of the spectrum detected by the six filters available on Applied Biosystems qPCR instruments.

Ordering information

Product	Size	Cat. No.
TaqPath ProAmp Multiplex Master Mix	1 x 10 mL	A30869
TaqPath 1-Step Multiplex Master Mix (4X)	5 x 1 mL	A28526
TaqPath 1-Step Multiplex Master Mix, No ROX (4X)	5 x 1 mL	A28522
Spectral Calibration Plate for Multiplex qPCR	1 plate	Various

Performance without compromise

Multiplexing with TaqMan QSY probes enables cost savings and preservation of limited samples, and also yields comparable results between reactions performed in individual tubes and in 4-plex reactions for a gene quantification experiment (Figure 4).

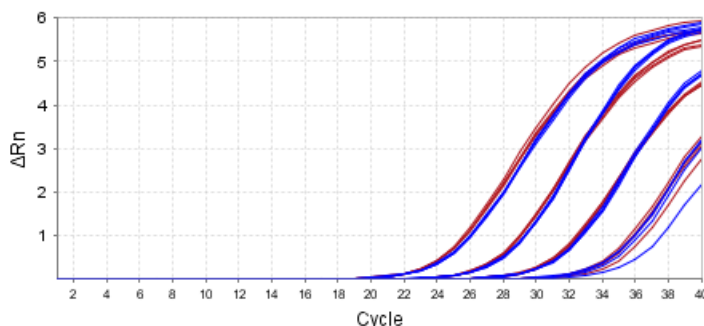


Figure 4. Comparable results for single-plex and multiplex assays. The amplification plot shows linear portions of the curves for four *EGFR* assays amplified in single-plex (blue) and 4-plex reactions (red) in a dilution series from 20,000 pg to 2 pg of reference colon cDNA per 10 μL reaction. PCR efficiencies are 96.09% for *EGFR* single-plex and 96.39% for *EGFR* 4-plex reactions.

Ordering information

Product	Size	Cat. No.
Probe set with a QSY quencher and either a FAM, VIC, ABY, or JUN reporter dye	6,000 pmol	4482777
	20,000 pmol	4482778
	50,000 pmol	4482779

Find out more at thermofisher.com/multiplexqpcr