

# ValuProbe™ BHQ® Probes

High quality, low cost FAM-BHQ linear probes for only **\$95**

10 nmol delivered | HPLC purified | Mass spec analyzed | Ships in 2-3 days



**FAM-BHQ linear probes** are the quintessential tool for real-time PCR. Bright signal to noise ratio, low cost, and compatibility with all qPCR thermal cyclers have made them the industry standard for gene quantification in a broad range of applications including transcript analysis, biomarker detection, and pathogen screening. Biosearch Technologies' ValuProbe BHQ Probes are the affordable option for quality, custom-synthesized dual-labeled probes.

At right, an assay targeting the human CHRM3 gene (nm\_000740) is amplified across a six-point dilution series of a standard DNA template, and spanning five orders of magnitude.

*Forward:*

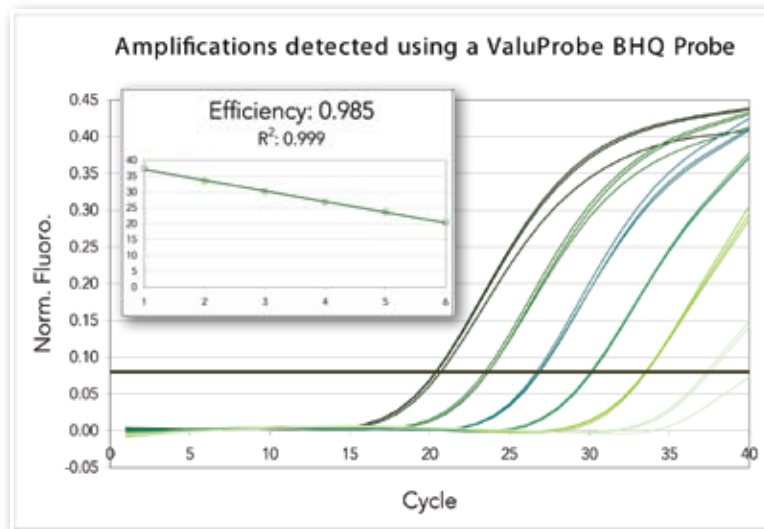
TGGCTTGGGTCATCTCCTTG

*Reverse:*

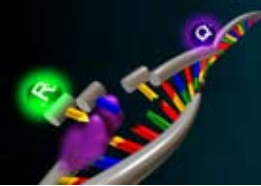
CCGGAGGCACAGTTCTCTTC

*Probe:*

FAM-TCCTTTGGGCTCCTGCCATCT-BHQ1



FAM	Excitation	Emission
	495 nm	520 nm
BHQ-1	Quenching Range	$\lambda_{max}$
	480-580 nm	534 nm



# Why Choose ValuProbe™ BHQ® Probes?

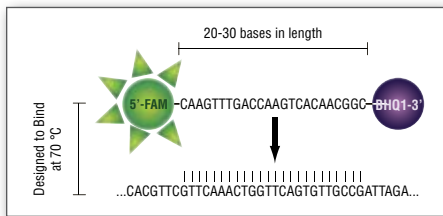
**Low Price:** Biosearch vertically integrates all aspects of oligo manufacture, from the dye precursors to the finished probes. Consequently, ValuProbe BHQ Probes are much less costly than others, including those with alternative quenchers such as TAMRA.

**BHQ Dye:** Black Hole Quencher® dyes have the proven performance to quench across the visible spectrum. ValuProbe BHQ Probes incorporate BHQ-1 dye, the ideal quencher for FAM.

**Quality:** Biosearch uses ESI-TOF mass spectrometry to ensure the identity of all its probes. Certificates of Analysis are always available upon request.

**Simplicity:** With just one fluorophore and one quencher, probe design couldn't be easier. Check out our RealTimeDesign software to further simplify the process: [www.biosearchtech.com/realtimedesign](http://www.biosearchtech.com/realtimedesign)

**Purity:** All probes are purified by Reverse Phase HPLC (RP-HPLC) to remove contaminating impurities that raise background fluorescence.



ValuProbe BHQ Probes are \$95 linear oligos with a 5' fluorescent reporter and a 3' Black Hole Quencher dye. After annealing to the region flanked by the PCR primers, these probes are hydrolyzed by the 5' to 3' exonuclease activity of Taq Polymerase, permanently releasing the fluorescent signal.

## A History of Proven Results

FAM and BHQ dyes provide best-in-class performance, as reflected in the scientific literature. Although BHQ dyes are licensed to other oligo manufacturers, Biosearch Technologies is the original and trusted source for BHQ probes.

## References:

Evaluation of tetramethylrhodamine and black hole quencher 1 labeled probes and five commercial amplification mixes in TaqMan® real-time RT-PCR assays for respiratory pathogens. G. Yang et al. *Journal of Virological Methods* 2009, Vol. 162, 288-290

Measurement of Gene Expression in Archival Paraffin-Embedded Tissues: Development and Performance of a 92-Genes Reverse Transcriptase-Polymerase Chain Reaction Assay. M. Cronin et al. *American Journal of Pathology* 2004, Vol. 164, No. 1, 35-42

Hugo LE, Cook PE, Johnson PH, Rapley LP, Kay BH, et al. 2010 Field Validation of a Transcriptional Assay for the Prediction of Age of Uncaged *Aedes aegypti* Mosquitoes in Northern Australia. *PLoS Negl Trop Dis* 4(2): e608. doi:10.1371/journal.pntd.0000608

Dual-Labeled BHQ Probes			
Catalog #	Product Description	Delivered Amount	Price
DLO-RFB-5	ValuProbe, 5' FAM/3' BHQ-1	10 nmol	\$95

81 Digital Drive  
 Novato, CA 94949-5728 USA  
 1.800.GENOME.1(436.6631) 1.415.883.8400  
 1.415.883.8488 fax  
[info@biosearchtech.com](mailto:info@biosearchtech.com) [www.biosearchtech.com](http://www.biosearchtech.com)



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