

Applications

MGB:EDQ can be applied to the following:

- Dual-Labeled Probes

And, is useful for the following:

- SNP detection via mismatch discrimination

Features

Specifications

Amounts	3, 5, & 10 OD (inquire for 50 & 100 OD)
Purification	HPLC
Sequence Lengths	15 to 40 bases
Modification	Minor Groove Binder / Eclipse Dark Quencher
Reporter Dyes	6-FAM™, HEX™ & TET™ (inquire for others)
Quality Control	100% mass spectrometry
Format	Supplied dry in amber tubes

Guaranteed Yields

OD Yield	Approx. No. of nmol	Approx. No. of µg	Approx. No. of Reactions*
3	12	96	2,400
5	20	160	4,000
10	40	320	8,000

*Estimate is based on 4 nmoles or 32 µg for 1 OD and 200 nM in 25 µL reaction (5.0 pmol/reaction). Estimate is based on an average sequence length of 25 bases.

Spectral Properties

Dye	Max. EX (nm)	Max. EM (nm)	Compatible Quencher
6-FAM	495	520	MGB:EDQ
HEX	535	556	
TET	521	536	

Shipping Schedule

Quantity (OD)	3	5	10
6-FAM, HEX & TET	10 – 12 days*	10 – 12 days	10 – 12 days

*Products ship from the United Kingdom. Allow extra days transit time for deliveries beyond Europe.

Benefits

MGB enhances the performance of qPCR in several ways:

- **Increased specificity:** MGB increases the specificity of the probe-target hybridization, reducing the likelihood of non-specific amplification.
- **Higher sensitivity:** MGB enables the use of shorter probes, which increase the sensitivity of qPCR assays.
- **Melting temperature adjustment:** MGB allows for T_m adjustment of the probe, which can be beneficial for designing qPCR probes with optimal T_m values.
- **Reduced background signal:** MGB contributes to a reduction in background fluorescence, leading to an improved S:N or signal-to-noise ratio.
- **Enhanced stability:** MGB can improve the stability of the probe-target hybrid, reducing the likelihood of probe degradation.
- **Design flexibility:** The use of MGB expands the options for probe design, facilitating the creation of efficient qPCR assays.

MGB-enhanced qPCR probes are a valuable tool for achieving reliable and robust qPCR results.

To learn more or order, contact your local sales professional.

To place an order or receive technical assistance

In Europe, please call Customer Service:

France: 0825 045 645 Spain: 901 516 645 Option 1
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Italy: 848 845 645 United Kingdom: 0870 900 4645

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