ELITe MGB

KITS

PRODUCT CODE	PRODUCT DESCRIPTION	QTY
RTK015PLD	**CMV ELITe MGB™ Kit**	100
STD015PLD	**CMV ELITe Standard**	8
RTS020PLD	**EBV ELITe MGB™ Kit**	100
STD020PLD	**EBV ELITe Standard**	16
CTR020PLD	**EBV ELITe Positive Control**	12
RTS031PLD	**HSV1 ELITe MGB™ Kit**	100
STD031PLD	**HSV1 ELITe Standard**	16
CTR031PLD	**HSV1 ELITe Positive Control**	12
RTS032PLD	**HSV2 ELITe MGB™ Kit**	100
STD032PLD	**HSV2 ELITe Standard**	16
CTR032PLD	**HSV2 ELITe Positive Control**	12
RTS035PLD	**VZV ELITe MGB™ Kit**	100
STD035PLD	**VZV ELITe Standard**	16
CTR035PLD	**VZV ELITe Positive Control**	12
RTS036PLD	**HHV6 ELITe MGB™ Kit**	100
STD036PLD	**HHV6 ELITe Standard**	16
CTR036PLD	**HHV6 ELITe Positive Control**	12
RTS038PLD	**HHV8 ELITe MGB™ Kit**	100
STD038PLD	**HHV8 ELITe Standard**	16
CTR038PLD	**HHV8 ELITe Positive Control**	12
RTS070PLD	**Parvovirus B19 ELITe MGB™ Kit**	100
STD070PLD	**Parvovirus B19 ELITe Standard**	16
CTR070PLD	**Parvovirus B19 ELITe Positive Control**	12
RTS078PLD	**ADENOVIRUS ELITe MGB™ Kit**	100
STD078PLD	**ADENOVIRUS ELITe Standard**	16
CTR078PLD	**ADENOVIRUS ELITe Positive Control**	12
RTS175PLD	**BKV ELITe MGB™ Kit**	100
STD175PLD	**BKV ELITe Standard**	16
CTR175PLD	**BKV ELITe Positive Control**	12

AVAILABLE SOON:

- **ASPERGILLUS ELITe MGB™ Kit**
- **CHLAMYDIA TRACHOMATIS ELITe MGB™ Kit**
- **MTB ELITe MGB™ Kit**

Please visit www.elitechgroup.com/elitechmgblegalnotice for complete licensing and warranty information.

Distributor Contact Information :

Part nr: EMD ELITeMGB-490-2011/00EN

ELITechGroup SOLUTIONS tailored to your needs

Product not available in the US
Please contact your sales representative for product availability in your country

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ELITe MGB™

REAL-TIME PCR KITS

- **Leading edge assays with proprietary technology**
- **Higher sensitivity**
- **Monoreagent format**
- **Universal cycling conditions**
- **Melt-curve analysis**

Innovation in Real-Time PCR

CE IVD

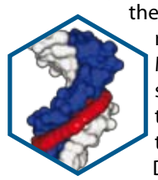
ELITech Molecular Diagnostics

Leading edge assays with proprietary technology

ELITE MGB™ is a revolutionary advance in Real-Time PCR chemistry. All ELITe MGB™ assays have been designed with our proprietary Minor Groove Binder (MGB) protein, Superbases™ and Eclipse®Dark Quencher technologies.

Our patented technology features shorter, overlapping probes that efficiently and accurately detect target DNA sequences, while offering greater sensitivity and specificity.

THE MGB protein is a synthetic molecule that binds to the minor groove of double stranded DNA molecules. In Real-Time PCR applications, MGB increases the stability of double stranded DNA complexes, specifically, the hybridization between the probe and the amplified DNA target. The increased DNA-DNA hybrid stability allows the design of shorter detection probes with higher specificity. Furthermore, the specificity of ELITe MGB™ probes increases the ability to discriminate between a perfectly matched sequence and a mismatched target compared to analogous MGB-free, longer counterpart probes.

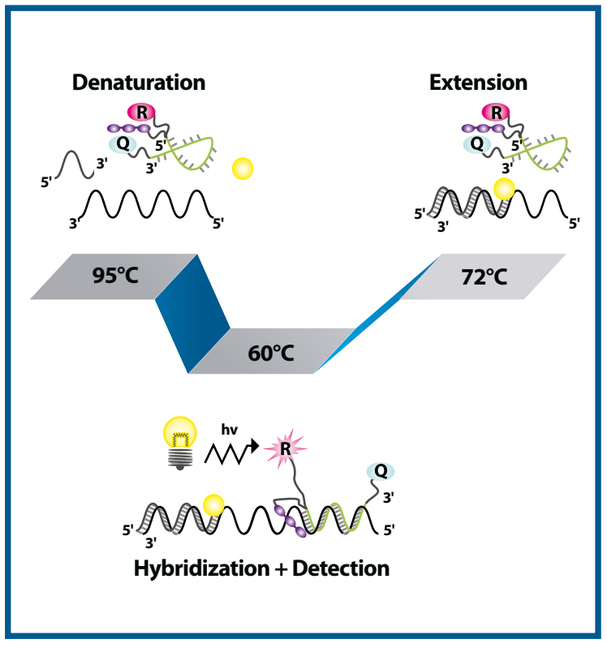


SUPERBASES™ are specially engineered, nitrogen-based nucleotides. The proprietary design of these nucleotides minimizes secondary and tertiary structure observed in A-T or G-C rich DNA target sequences. This feature allows ELITe MGB™ assays to target even the most challenging gene sequences without compromising accuracy, clinical specificity or sensitivity.

The **ECLIPSE®DARK QUENCHER** is a proprietary fluorophore and dye quencher chemistry resulting in low background signals. Its key benefit is to ensure that every ELITe MGB™ assay will have the highest sensitivity by minimizing background signal interference.

ELITE MGB™ PROBES FEATURE HIGHER SENSITIVITY, SPECIFICITY AND LOW FLUORESCENCE BACKGROUND.

Universal Cycling Conditions



All the ELITe MGB™ assays utilize the same temperature and amplification profile. Known commonly as Universal Cycling Conditions, this profile consists of a three-step protocol: a denaturing step, an annealing step and an extension step. Universal Cycling Conditions enable laboratories to create multiple targets runs that can be run simultaneously on the same thermocycler.

DENATURATION STEP: The coiled ELITe MGB™ probe float freely in solution and will not emit fluorescence due to the close proximity of the fluorophore and dye-quencher.

ANNEALING STEP: The probe anneals to the target DNA sequence. In this conformation the fluorophore is separated from the quencher and emits light at a specific wavelength.

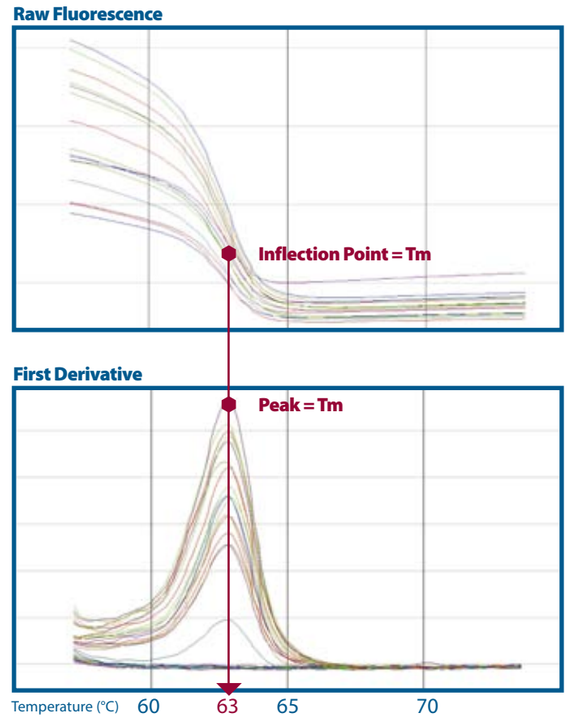
EXTENSION STEP: During DNA polymerization, the probe is displaced from the target gene sequence and reverts to its coiled-conformational state without being hydrolyzed. In this state, the probe is free in solution and will not emit fluorescence due to the close proximity of the fluorophore and dye-quencher.

Monoreagent format

ELITE MGB™ MASTERMIX has been reformulated to allow for a larger sample volume, significantly improving assay sensitivity. ELITe MGB™ mastermix is provided as a single solution in a ready-to-use format and includes all the components required for Real-Time PCR. No pipetting, mixing or reagent set-up is necessary; simply aliquot mastermix into the reaction wells and add your extracted sample.

Melt-curve analysis

THE MELT-CURVE ANALYSIS is a technique that monitors the relative fluorescence from the ELITe MGB™ probe as the temperature is gradually increased. This process creates a sequence specific dissociation profile, or melt-curve fingerprint, that is unique for a given double-stranded DNA fragment. For laboratories to utilize this valuable tool, Real-Time PCR methods must use DNA probes that are intact and undegraded. During Real-Time PCR, ELITe MGB™ Probes remain intact (unlike older Real-Time methods in which probes are degraded).



At low temperature, ELITe MGB™ probe is hybridized to the DNA target generating maximum fluorescence. Increasing the temperature causes the ELITe MGB™ probe to dissociate or "melt" from the DNA target. As the ELITe MGB™ probe "melts" the fluorophore and quencher are brought back in proximity resulting in lower fluorescence. See upper graph at left.

Creating a second graphic (first derivative) will identify the specific Melt Temperature (TM) corresponding to the inflection point in the first graphic.

Because melt-curve analysis can resolve subtle pairing differences between the probe and target sequences, it is a valuable tool to identify clinically relevant DNA sequence alterations. A mismatch pairing could result in an underestimation of the quantity of bacterial or viral target present in the clinical sample. By analyzing the melt-curve profile at the end of each amplification, the accuracy, specificity and integrity of the quantitative analysis can be assessed.

As such, melt-curve analysis gives clinicians critical data that could be clinically or therapeutically important or impact the course of care for their patients.