Product Information

• LCGreen Plus is specifically designed for Hi-Res Melting® curve analysis to detect DNA sequence variants (mutations, polymorphisms, etc).

• LCGreen Plus has superb fluorescence intensity, and can be used with other fluorescence based PCR detection systems such as the Roche LightCycler®. For optimal performance, the use of a high-resolution melting instrument is required.


• Addition of LCGreen Plus increases the melting temperature (Tm) of DNA by about 1 – 3 °C, and may require adjustment of cycling parameters.

• LCGreen Plus is manufactured exclusively by BioFire and the chemical structures are unique among the scientific and patent literature.

Directions for Use

• LCGreen Plus dye is supplied as a 10X solution in 10mM Tris-HCl (pH 8.3, 0.1 mM EDTA)

• LCGreen Plus should be used at 1X for PCR. Add one volume of 10X solution to nine volumes of the PCR mixture.

• If you are using glass capillary tubes for PCR and/or for melting analysis, make sure your reaction mixture contains bovine serum albumin (BSA) at 250 - 500 µg/mL. BSA helps avoid enzyme, DNA and dye adhesion to the glass surface.
Shipping & Storage

- Product is shipped at ambient temperature.
- Store at –20 °C upon receipt. Store at 4 °C after first use.
- Product is stable for one year at –20 °C, and up to 6 months at 4 °C.

Related Products

- LightScanner Master Mix

Conventional dsDNA dyes cannot be used at high concentrations due to dye redistribution during melting curve analysis.

Saturation of dsDNA binding sites eliminates potential for dye redistribution during melting curve acquisition.

References

Closed-Tube Genotyping with Unlabeled Oligonucleotide Probes and a Saturating DNA Dye.

Rapid, comprehensive screening of the human medium chain acyl-CoA dehydrogenase gene.

Detection of c-kit activating mutations in gastrointestinal stromal tumors by high-resolution amplicon melting analysis.

High-resolution DNA melting curve analysis to establish HLA genotypic identity.

High-resolution melting analysis for detection of internal tandem duplications.

Rapid species identification within the Mycobacterium chelonae-abscessus group by high-resolution melting of hsp65 PCR products.

Validation of dye-binding/high-resolution thermal denaturation for the identification of mutations in the SLC22A5 gene.

STR melting curve analysis as a genetic screening tool for crime scene samples.

Reviews on High-Resolution Melting

Fifty Years of Molecular (DNA/RNA) Diagnostics.

SNPs for sale. Cheap!
Highsmith WE Jr., Clin Chem., 50:1296-8, 2004

Package Sizes

<table>
<thead>
<tr>
<th>No. of Reactions*</th>
<th>1,000</th>
<th>10,000</th>
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<tbody>
<tr>
<td>LCGreen® Plus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(10X solution)</td>
<td>1 mL</td>
<td>10 X 1 mL</td>
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<td>Catalog No.</td>
<td>BCHM-ASY-0005</td>
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* based on 10 µl reaction volume

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