

LightScanner® Instrument

Information Sheet



Mutation Discovery, Gene Scanning and Genotyping

The LightScanner is the **first and only** instrument to utilize **Hi-Res Melting™** for mutation scanning and genotyping in a 96- or 384-well plate system. This exciting technology, licensed exclusively to Idaho Technology, is based upon the following patent publications: 2005-02333335 (*Nucleic and Melting Analysis with Saturation Dyes*) and 2006-0019253, (*Amplicon Melting Analysis with Saturation dyes*).

The LightScanner is unsurpassed in its temperature control and data acquisition rates. With **superb sensitivity and specificity**, this instrument is designed to meet the needs of high throughput scanning projects. Simply add LCGreen® dye to the initial PCR reaction— then transfer the PCR plate to the LightScanner for melting. Intuitive analysis software groups the results and provides **automatic results**.

Benefits from a Complete Product Solution

Instrument

- Results in less than five minutes
- Hi-Res Melting is non-destructive allowing samples to be recovered for further analysis

Chemistry

- Optimized Master Mix for superior PCR performance for Hi-Res Melting applications

Software

- Software automatically analyses each sample and defines the standards and variants
- Simple data management tools
- Primer design software

Support

- Obtain quick assistance through phone and online help desks
- Work directly with highly experienced scientists

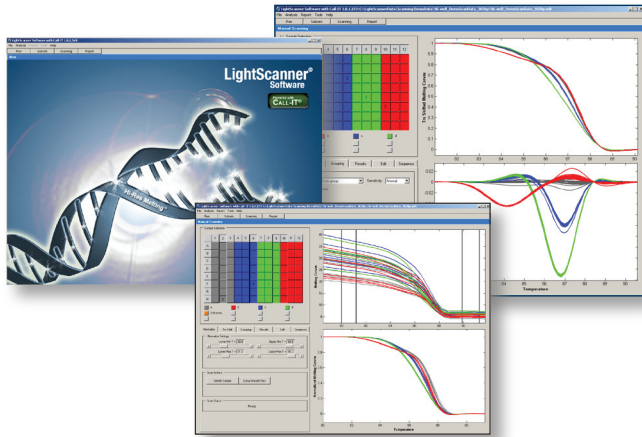


Innovative solutions for pathogen identification and DNA research

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LightScanner® Software

Our comprehensive software package provides both assay design and data analysis modules. The primer design module streamlines assay design for Hi-Res Melting. The analysis software features Call-IT®, a patented scientific method where the software critically analyses each sample, defines and groups wild-types and variants. This software also provides users with simple data management tools.



Ordering Information

LightScanner Instrument

Plate Format	96-Well	384-Well
Catalog No.	LSCN-ASY-0011	LSCN-ASY-0001

LightScanner Master Mix

No. of Rxns	100	500	Larger sizes Inquire
Catalog No.	HRLS-ASY-0002	HRLS-ASY-0003	

LCGreen® Plus Melting Dye

No. of Rxns	1,000	10,000	Larger sizes Inquire
Catalog No.	BCHM-ASY-0005	BCHM-ASY-0006	

References

1. Wittwer CT, Reed GH, Gundry CN, Vandersteen JG, Pryor RJ. **High-resolution genotyping by amplicon melting analysis using LCGreen.** Clin Chem. 2003 Jun; 49(6):853-60.
2. Liew M, Pryor R, Palais R, Meadows C, Erali M, Lyon E, Wittwer C. **Genotyping of single-nucleotide polymorphisms by high-resolution melting of small amplicons.** Clin Chem. 2004 Jul; 50(7):1156-64.
3. Zhou L, Myers AN, Vandersteen JG, Wang L, Wittwer CT. **Closed-tube genotyping with unlabeled oligonucleotide probes and a saturating DNA dye.** Clin Chem. 2004 Aug; 50(8):1328-35. Epub 2004 May 27. editorial
4. Reed GH, Wittwer CT. **Sensitivity and specificity of single-nucleotide polymorphism scanning by high-resolution melting analysis.** Clin Chem. 2004 Oct; 50(10):1748-54. Epub 2004 Aug 12

Purchase of the LightScanner Master Mix conveys a limited license to use the quantity purchased for melting curve analysis pursuant to U.S. Publications Nos. 20050233335 and 20060019253. Purchase of the LightScanner Master Mix does not convey any PCR license.

LCGreen, Hi-Res Melting, LightScanner, Call-IT are trademarks of Idaho Technology Inc. LightCycler is a trademark of a member of the Roche Group.

LightScanner and Computer Specifications

Size (w x d x h)

- 7.8" (20 cm) x 16.5" (42 cm) x 31.8" (81 cm)

Weight

- 25 kg / 55 lbs

Sample format

- Standard 96- or 384-well trays
- Reaction volume 5-100 µl

LightScanner Software

- Accurately performs mutation scanning and genotyping by Hi-Res Melting curve analysis.

Computer

- Pentium-based PC with Windows XP Professional, 17"- 1280 x 1024 graphics monitor and software.

Networking

- Ethernet connection allows export of data in standard spreadsheet format compatible with LIMS software.

Voltage Input

- 100-240 VAC, +/-10%, 50-60 Hz with automatic detection and configuration, 2.5 A

Wattage

- 800 W maximum including computer and monitor.

Excitation filter

- 470 +/- 20 nm

Emission filters

- 510 and 600 nm

Sample temperature range

- 40° to 100 °C

Cooling time 95° to 60 °C (non-linear)

- ~ 180 seconds at ambient temperature 25 °C

Heating rate

- 0.1 °C per second

Single run time

- 15 minutes, including cool down.