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Not for use in diagnostic procedures.



LightCycler[®] ResoLight Dye

 **Version: 06**

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Fluorescent dye for detection of double-stranded DNA in real-time PCR and high-resolution melting analysis.

Cat. No. 04 909 640 001 1 mL
20x conc.
1,000 reactions of 20 µL final volume each

Store the product at –15 to –25°C.

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1. General Information

1.1. Contents

| Label | Content |
|---------------------------------------|--------------|
| LightCycler® ResoLight Dye, 20x conc. | 1 vial, 1 mL |

1.2. Storage and Stability

Storage Conditions (Product)

The product is shipped on dry ice.

When stored at –15 to –25°C, the product is stable through the expiration date printed on the label.

| Label | Storage |
|----------------------------|--|
| LightCycler® ResoLight Dye | Store at –15 to –25°C. ⚠️ Avoid repeated freezing and thawing. Once thawed, store the solution in aliquots at –15 to –25°C. ⚠️ Store protected from light. |

1.3. Additional Equipment and Reagent required

Standard laboratory equipment

- Nuclease-free pipette tips
- 1.5 mL RNase-free microcentrifuge tubes to prepare master mixes and dilutions
- To minimize risk of RNase contamination, autoclave all vessels

For PCR

- Real-Time PCR systems such as the LightCycler® 480 or LightCycler® 96 Systems*
- LightCycler® Multiwell Plate 96, white*
- LightCycler® Multiwell Plate 384, white*
- LightCycler® Multiwell Plate 96, white, 4 bar codes*
- LightCycler® Multiwell Plate 384, white, 4 bar codes*
- LightCycler® Sealing Foil*
- Sealing Foil Applicator*
- LightCycler® 8-Tube Strips*
- LightCycler® 8-Tube Strip Adapter Plate*
- Centrifuge with swinging bucket rotor for multiwell plates

1.4. Application

LightCycler® ResoLight Dye binds to double-stranded DNA and enables homogeneous measurement of DNA formation in real-time PCR and DNA double-strand dissociation in melting analysis. It is tailored specifically for high-resolution melting analysis for detection of sequence variations by differences in melting curves in mutation scanning or genotyping applications.

LightCycler® ResoLight Dye is less inhibitory to DNA polymerase during PCR, and generates a higher fluorescence signal than other commonly used dyes for detection of double-stranded DNA.

With excitation and emission wavelengths similar to fluorescein, this dye can be detected with most available real-time PCR instruments. The LightCycler® 480 and LightCycler® 96 Instruments enable identification of sequence variations in high-resolution melting analysis.

2. How to Use this Product

2.1. Protocols

Preparation of PCR master

- 1 Thaw the LightCycler® ResoLight Dye.
 - 2 Add 1 part LightCycler® ResoLight Dye to 19 parts of your reaction mix.
-

2.2. Parameters

Emission

Measure emission between 480 and 560 nm. The emission maximum is at 503 nm.

Excitation Maximum

LightCycler® ResoLight Dye is excited by light with a wavelength between 450 and 500 nm. The excitation maximum is at 487 nm.

3. Additional Information on this Product



3.1. Quality Control

The LightCycler® ResoLight Dye is function tested using the LightCycler® System.

4. Supplementary Information

4.1. Conventions

To make information consistent and easier to read, the following text conventions and symbols are used in this document to highlight important information:

| Text convention and symbols | |
|--|--|
|  <i>Information Note: Additional information about the current topic or procedure.</i> | |
|  Important Note: Information critical to the success of the current procedure or use of the product. | |
| ① ② ③ etc. | Stages in a process that usually occur in the order listed. |
| 1 2 3 etc. | Steps in a procedure that must be performed in the order listed. |
| * (Asterisk) | The Asterisk denotes a product available from Roche Diagnostics. |

4.2. Changes to previous version

Editorial changes.

Quality control has been updated.

Reagents and consumables have been updated regarding new product names.

Product name change to LightCycler® ResoLight Dye.

4.3. Ordering Information

Roche offers a large selection of reagents and systems for life science research. For a full overview of related products and manuals, please visit and bookmark our homepage lifescience.roche.com.

| Product | Pack Size | Cat. No. |
|---|--|----------------|
| Accessories general (hardware) | | |
| LightCycler® 8-Tube Strip Adapter Plate | 1 piece, The adapter plate can be used multiple times. | 06 612 598 001 |
| Sealing Foil Applicator | 1 piece | 10 018 607 001 |
| Consumables | | |
| LightCycler® 8-Tube Strips (white) | 10 x 12 white strips and clear caps | 06 612 601 001 |
| LightCycler® Multiwell Plate 384, white | 5 x 10 plates | 04 729 749 001 |
| LightCycler® Multiwell Plate 96, white | 5 x 10 plates | 04 729 692 001 |
| LightCycler® Sealing Foil | 50 foils | 04 729 757 001 |
| LightCycler® Multiwell Plate 96 | 5 x 10 plates without sealing foils | 05 220 319 001 |
| LightCycler® Multiwell Plate 384 | 5 x 10 plates without sealing foils | 05 217 555 001 |
| Instruments | | |
| LightCycler® 96 Instrument | 1 instrument | 05 815 916 001 |
| LightCycler® 480 Instrument II | 1 instrument, 96-well version | 05 015 278 001 |
| | 1 instrument, 384-well version | 05 015 243 001 |
| Reagents, kits | | |
| LightCycler® High Resolution Melting Master | 5 x 1 mL, 2x conc. 5 x 100 reactions of 20 µL final volume each | 04 909 631 001 |

4.4. Trademarks

LIGHTCYCLER and RESOLIGHT are trademarks of Roche.
All other product names and trademarks are the property of their respective owners.

4.5. License Disclaimer

For additional documentation such as certificates and safety data sheets, please visit:
documentation.roche.com.

4.6. Regulatory Disclaimer

For life science research only. Not for use in diagnostic procedures.

4.7. Safety Data Sheet

Please follow the instructions in the Safety Data Sheet (SDS).

4.8. Contact and Support

If you have questions or experience problems with this or any Roche product for Life Science, please contact our Technical Support staff. Our scientists are committed to providing rapid and effective help.
Please also contact us if you have suggestions for enhancing Roche product performance or using our products in new or specialized ways. Such customer information has repeatedly proven invaluable to the research community worldwide.

To ask questions, solve problems, suggest enhancements or report new applications,
please visit our **[Online Technical Support Site](#)**.

Visit **documentation.roche.com**, to download or request copies of the following Materials:

- Instructions for Use
- Safety Data Sheets
- Certificates of Analysis
- Information Material

To call, write, fax, or email us, visit **lifescience.roche.com** and select your home country to display country-specific contact information

