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LightCycler[®] 480 ResoLight Dye

 **Version: 05**

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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
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	Function / Description	Content
LightCycler® 480 ResoLight Dye, 20x conc.	For up to 1,000 reactions with 20 µl reaction volume.	1 vial, 1 ml

1.2. Storage and Stability

Storage Conditions (Product)

i 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
ResoLight Dye	<p>⚠ Store at –15 to –25°C.</p> <p>⚠ Avoid repeated freezing and thawing. Once thawed, store the solution in aliquots at –15 to –25°C.</p> <p>⚠ Store protected from light.</p>

1.3. Additional Equipment and Reagents Required

Refer to the list below for additional equipment required to perform PCR reactions with the LightCycler® 480 ResoLight Dye using the LightCycler® 480 Instrument, LightCycler® 96, or LightCycler® Nano System.

- LightCycler® 480*, LightCycler® 96*, or LightCycler® Nano Instrument
- LightCycler® 480 Multiwell Plate 96 or 384 wells with Sealing Foil* or LightCycler® 8-Tube Strips*
- LightCycler® 480 8-Tube Strip Adapter Plate*
- Standard swinging-bucket centrifuge containing a rotor and adaptors for multiwell plates

1.4. Application

LightCycler® 480 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® 480 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 Instrument, LightCycler® 96, or LightCycler® Nano System with its special characteristics 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® 480 ResoLight Dye.
 - 2 Add 1 part LightCycler® 480 ResoLight Dye to 19 parts of your reaction mix.
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3. Additional Information on this Product

3.1. Quality Control

The LightCycler® 480 ResoLight Dye is function tested using the LightCycler® 480 Real-Time PCR System.

3.2. Other Parameters

Emission

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



Excitation Maximum

LightCycler® 480 ResoLight Dye is excited by light with a wavelength between 450 and 500 nm. The excitation maximum is at 487 nm.

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

Layout changes.
Editorial changes.

4.3. Ordering Information

Roche offers a large selection of reagents and systems for life science research. For a complete 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, adapter plate, The adapter plate can be used multiple times	06 612 598 001
Consumables		
LightCycler® 480 Multiwell Plate 96, white	5 x 10 plates	04 729 692 001
LightCycler® 480 Multiwell Plate 384, white	5 x 10 plates	04 729 749 001
LightCycler® 480 Multiwell Plate 96, clear	5 x 10 plates	05 102 413 001
LightCycler® 480 Multiwell Plate 384, clear	5 x 10 plates	05 102 430 001
LightCycler® 8-Tube Strips (clear)	10 x 12 clear strips and caps, Each pack of LightCycler® 8-Tube Strips contains 10 x 12 strips of both tubes and flat caps, in 10 non-sterile plastic bags., Each pack of LightCycler® 8-Tube Strips contains 10 x 12 strips of both tubes and flat caps, in 10 non-sterile plastic bags.	06 327 672 001
LightCycler® 8-Tube Strips (white)	10x 12 white strips and clear caps.	06 612 601 001
Instruments		
LightCycler® 480 Instrument II	1 instrument	05 015 278 001
	1 instrument	05 015 243 001
LightCycler® 96 Instrument	1 instrument	05 815 916 001
Reagents , kits		
LightCycler® 480 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 third party product names and trademarks are the property of their respective owners.

4.5. License Disclaimer

For patent license limitations for individual products please refer to: <http://technical-support.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 **lifescience.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.

