


DS-02 Matrix Standard Kit (Dye Set E5) for the 310 Genetic Analyzer

Catalog Numbers 4323050

Pub. No. 4340083 Rev. B

 **WARNING!** Read the Safety Data Sheets (SDSs) and follow the handling instructions. Wear appropriate protective eyewear, clothing, and gloves. Safety Data Sheets (SDSs) are available from thermofisher.com/support.

Product description

The Matrix Standard Set DS-02 is used for spectral calibration to generate the "multi-component matrix" required before analyzing fragments labeled with dR110™, dR6G™, dTAMRA™, dROX™, and LIZ™ dyes on the 310 Genetic Analyzer.

Matrix standards do not need to be run with every set of sample injections. A set of five matrix standards only needs to be run once in order to generate a matrix file which is then applied to samples run under similar conditions.

Contents and storage

Contents ^[1]	Amount	Storage ^[2]
dR110™ Matrix Standard	1 tube	Store at 2–8°C, protected from light. Do not freeze.
dR6G™ Matrix Standard	1 tube	
dTAMRA™ Matrix Standard	1 tube	
dROX™ Matrix Standard	1 tube	
LIZ™ Matrix Standard	1 tube	

^[1] Each matrix standard contains a mixture of DNA fragments of specific sizes, each labeled with a unique fluorescent dye.

^[2] The standards are stable for one year when stored at 2–8°C.

Guidelines for use

- For more information on the use of matrix standards, see the instrument User Guide or Getting Started Guide.
- **IMPORTANT!** Thoroughly mix the contents of the DS-02 Matrix Standard tube, then briefly centrifuge before use.
- To prepare the matrix standard dilution, combine the appropriate volumes of matrix standard and Hi-Di™ Formamide (Cat. No. 4311320). Dilution volumes vary depending on the specific application and instrument.
- Do not prepare the matrix standard more than 2 hours in advance.
- **IMPORTANT!** Discard any unused reagent that has been diluted in Hi-Di™ Formamide.

Prepare the standards for the 310 Genetic Analyzer

1. Combine the following components for each Matrix Standard:

Component	Volume per standard
Matrix Standard	1 µL
Hi-Di™ Formamide	12 µL
Total volume	13 µL

2. Mix thoroughly, then centrifuge to bring the mixture to the bottom of the tubes and to eliminate air bubbles.
3. To denature the DNA fragments, incubate at 95°C for 5 minutes. Immediately place the mixture on ice.
4. Load each five-color matrix standard in a separate injection.
5. Open the GeneScan™ injection list in the 310 Genetic Analyzer Data Collection Software.
6. Import the 5-dye sample sheet, then select Run Module **GS STR POP4 (1 mL) E5**.
7. Start the sample run.

Limited product warranty

Life Technologies Corporation and/or its affiliate(s) warrant their products as set forth in the Life Technologies' General Terms and Conditions of Sale found on Life Technologies' website at www.thermofisher.com/us/en/home/global/terms-and-conditions.html. If you have any questions, please contact Life Technologies at www.thermofisher.com/support.



Manufacturer: Multiple Life Technologies Corporation manufacturing sites are responsible for manufacturing the products associated with the workflow covered in this guide.

Corporate entity: Life Technologies Corporation | Carlsbad, CA 92008 USA | Toll Free in USA 1 800 955 6288

The information in this guide is subject to change without notice.

DISCLAIMER: TO THE EXTENT ALLOWED BY LAW, LIFE TECHNOLOGIES AND/OR ITS AFFILIATE(S) WILL NOT BE LIABLE FOR SPECIAL, INCIDENTAL, INDIRECT, PUNITIVE, MULTIPLE, OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH OR ARISING FROM THIS DOCUMENT, INCLUDING YOUR USE OF IT.

Revision history: Pub. No. 4340083

Revision	Date	Description
B	22 December 2017	Updated and rebranded.
A	17 December 2002	New document.

Important Licensing Information: These products may be covered by one or more Limited Use Label Licenses. By use of these products, you accept the terms and conditions of all applicable Limited Use Label Licenses.

©2017 Thermo Fisher Scientific Inc. All rights reserved. All trademarks are the property of Thermo Fisher Scientific and its subsidiaries unless otherwise specified.