BigDye™ Terminator v3.1 Matrix Standard Kit

SeqStudio™, 3500, and 3130 series instruments

Catalog Number 4336974

Pub. No. 4363117 **Rev.** C

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**.

Note: For safety and biohazard guidelines, see the "Safety" appendix in the the instrument user guide. Read the Safety Data Sheets (SDSs) and follow the handling instructions. Wear appropriate protective eyewear, clothing, and gloves.

Product description

The BigDye™ Terminator v3.1 Matrix Standard Kit is used to perform spectral calibrations. The matrix standard contains four sizes of DNA fragments, each size labeled with a different fluorescent dye. The matrix standard can be used to perform spectral calibrations on the following instruments:

- SeqStudio™ Genetic Analyzer
- 3500/3500xL Genetic Analyzer
- 3130/3130*xl* Genetic Analyzer

Contents and storage

Contents	Amount	Storage
BigDye™ Terminator v3.1 Matrix Standard	1 tube	Store at 2–8°C, protected from light.[1] Do not freeze.

[1] The kit is stable for six months when stored at 2–8°C.

Guidelines for use

- For more information on the use of matrix standards, see the instrument user guide or *DNA Fragment Analysis by Capillary Electrophoresis User Guide* (Pub. No. 4474504).
- **IMPORTANT!** Thoroughly mix the contents of the matrix standard tubes, 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.
- Do not add size standard to the matrix standard.
- **IMPORTANT!** Discard any unused reagent that has been diluted in Hi-Di™ Formamide.

Prepare the standard for the SeqStudio™ Genetic Analyzer

1. Combine the components for the array:

Component	Volume
	4-capillary array
Matrix standard	1 µL
Hi-Di™ Formamide	49 µL
Total volume	**50 µL**

2. Mix thoroughly, then centrifuge to bring the mixture to the bottom of the tube and eliminate air bubbles.
3. To denature the DNA fragments, incubate the mixture at 95°C for 2 minutes. Immediately place the mixture on ice.
4. Add 10 µL of the mixture to 4 wells (A1–D1) wells in a 96-well plate.
5. Cover the plate with a 96-well septa (Cat. No. 4315933), then centrifuge to bring the mixture to the bottom of the tube and eliminate air bubbles.
6. See the instrument user guide for specifics on setting up the run.

Prepare the standard for the 3500/3500xL Genetic Analyzer

1. Combine the components for the appropriate capillary array:

Component	Volume	
	8-capillary array	24-capillary array
Matrix standard	2 µL	5 µL
Hi-Di™ Formamide	98 µL	245 µL
Total volume	**100 µL**	**250 µL**

2. Mix thoroughly, then centrifuge to bring the mixture to the bottom of the tube and eliminate air bubbles.
3. To denature the DNA fragments, incubate the mixture at 95°C for 2 minutes. Immediately place the mixture on ice.
4. Add 10 µL of the mixture to the appropriate number of wells in a 96-well plate:
   - **8-capillary array**—8 wells (A1–H1)
   - **24-capillary array**—24 wells (A1–H3)

   Note: If you place the standard in other wells, specify the starting well in the software.
5. Cover the plate with a 96-well septa (Cat. No. 4315933), then centrifuge to bring the mixture to the bottom of the tube and eliminate air bubbles.
6. Assemble the plate with the Retainer and Base, then load on the instrument.
7. See the instrument user guide for specifics on setting up the run.

Prepare the standard for the 3130/3130*xl* Genetic Analyzer

1. Combine the components for the appropriate capillary array.

Table 1 16-capillary array

Component	Volume		
	36-cm array	50-cm array	80-cm array
Matrix standard	10 µL	5 µL	10 µL
Hi-Di™ Formamide	190 µL	195 µL	190 µL
Total volume	**200 µL**	**200 µL**	**200 µL**

Table 2 4-capillary array

Component	Volume		
	36-cm array	50-cm array	80-cm array
Matrix standard	2.5 µL	2.5 µL	2.5 µL
Hi-Di™ Formamide	47.5 µL	97.5 µL	47.5 µL
Total volume	**50 µL**	**100 µL**	**50 µL**

2. Mix thoroughly, then centrifuge to bring the mixture to the bottom of the tube and eliminate air bubbles.
3. To denature the DNA fragments, incubate the mixture at 95°C for 2 minutes. Immediately place the mixture on ice.
4. Add 10 µL of the mixture to the appropriate number of wells in a 96-well plate.
   - **16-capillary array**—16 wells (A1–H2)
   - **4-capillary array**—4 wells (A1–D1)
5. Assemble the plate with the Retainer and Base, then load on the instrument.
6. See the instrument user guide for specifics on setting up the 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 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**.

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For descriptions of symbols on product labels or product documents, go to **thermofisher.com/symbols-definition**.

Revision history: Pub. No. 4363117

Revision	Date	Description
C	05 November 2018	• Update instrumentation • Update licensing, trademarks, general style and format.
B	18 August 2009	Baseline for this revision