Multi-Capillary DS-02 (Dye Set E5) Matrix Standard

3130, 3100 and 3500 Series Genetic Analyzers

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Insert P/N 4363121 REV B
Printed in USA

For Research Use Only.
Not for use in diagnostic procedures.

Product Description:
Dye-labeled oligonucleotides included in the DS-02 Matrix Standard (dR110, dR6G, dTAMRA™, dROX™, and LIZ® dyes) are used to generate the "multicomponent matrix" required for the SNaPshot® Multiplex Kit on the Applied Biosystems 3130, 3100 and 3500 Series Genetic Analyzers. The Data Collection software utilizes the multicomponent matrix to automatically correct for the spectral overlap in samples labeled with DS-02 dyes. The kit consists of one tube of matrix standard which is sufficient for a minimum of eight 16-capillary or 24-capillary array runs. This tube contains a mixture of DNA fragments of specific sizes, each labeled with a unique fluorescent dye within the DS-02 dye set. The standards are diluted in 1x TE buffer.

Matrix standards do not need to be run with every set of sample injections. The standard only needs to be run once in order to generate a matrix file which is then applied to samples run under similar conditions. For more information on the use of matrix standards, refer to the instrument User Guide or Getting Started Guide.

Storage Conditions:
Store the kit at 2°C to 8°C until ready to use. Do not freeze this product.

Shelf life:
The kit is stable for one year when stored at 2°C to 8°C.

Instructions for use:

Preparing the DS-02 Matrix Standard for the Applied Biosystems 3130 and 3100 Series Genetic Analyzers:

1. Thoroughly mix the contents of the Matrix Standard Set DS-02 tube and spin briefly in a microcentrifuge.
2. Prepare the Matrix Standard by combining 5 µL of the DS-02 Matrix Standard supplied in the kit and 195 µL of Hi-Di™ Formamide (P/N 4311320 or P/N 4440753) in a 1.5 mL microcentrifuge tube.
3. Mix thoroughly and spin briefly in a microcentrifuge.
4. Denature:

For convenience, we recommend dispensing the contents of the tube into a 96-well microtiter plate first, and then using a thermal cycler for denaturation.

If a thermal cycler is available for denaturation, follow steps A and B below.

A) Dispense 10 µL of the matrix standard / Hi-Di™ formamide mixture into a 96-well microtiter plate or 5 µL of the mixture into a 384-well microtiter plate. For 16 capillaries, dispense into two columns. For 4 capillaries, dispense into 4 wells (half a column). Refer to the user guide for details on plate layout.

B) Cover the plate and denature at 95°C for 5 minutes. Immediately place on ice.

OR

If a thermal cycler is not available, follow steps C and D below.

C) Heat the mixture at 95°C for 5 minutes to denature, and immediately place on ice.

D) Dispense 10 µL of the matrix standard/Hi-Di™ formamide mixture into a 96-well microtiter plate or 5 µL of the mixture into a 384-well microtiter plate. For 16 capillaries, dispense into two columns. For 4 capillaries, dispense into 4 wells (half a column). Refer to the user guide for details on plate layout.

5. Place the microtiter plate on the instrument.

6. Refer to your User Guide or Getting Started Guide for instructions on running samples.

Preparing the DS-02 Matrix Standard for the Applied Biosystems 3500 Series Genetic Analyzers:

1. Thoroughly mix the contents of the Matrix Standard Set DS-02 tube and spin briefly in a microcentrifuge.

2. Prepare the Matrix Standard by combining 3 µL of the DS-02 Matrix Standard supplied in the kit and 247 µL of Hi-Di™ Formamide (P/N 4440753 or P/N 4311320) in a 1.5 mL microcentrifuge tube.

3. Mix thoroughly and spin briefly in a microcentrifuge.

4. Denature:

For convenience, we recommend dispensing the contents of the tube into a microtiter plate first, and then using a thermal cycler for denaturation.

If a thermal cycler is available for denaturation, follow steps A and B below.

A) Dispense 10 µL of the Matrix Standard / Hi-Di™ Formamide mixture into one or three columns (8 or 24 caps) of a 96-well microtiter plate, or 5 µL of the mixture into one or three columns (8 or 24 caps) of a 384-well microtiter plate. Please refer to the User Guide for further details on plate layouts.

B) Cover the plate and denature at 95°C for 5 minutes. Immediately place on ice or ramp to 4C on the thermal cycler.

OR

If a thermal cycler is not available, follow steps C and D below.

C) Heat the mixture at 95°C for 5 minutes to denature, and immediately place on ice.

D) Dispense 10 µL of the Matrix Standard / Hi-Di™ Formamide mixture into one or three columns (8 or 24 caps) of a 96-well microtiter plate, or 5 µL of the mixture into one or three columns (8 or 24 caps) of a 384-well microtiter plate. Please refer to the User Guide for further details on plate layouts.

5. Place the microtiter plate on the instrument.

6. Refer to your User Guide or Getting Started Guide for instructions on running samples.

NOTE: Discard any unused reagent that has been diluted in Hi-Di™ Formamide.

Safety warning:
Please read safety data sheets for further details.

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