


# 3500/3500xL Sequencing Standards, BigDye™ Terminator v3.1

SeqStudio™ and 3500/3500xL instruments

Catalog Numbers 4404312

Pub. No. 4404319 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](http://thermofisher.com/support).

## Product description

The Applied Biosystems™ BigDye™ Terminator v3.1 Cycle Sequencing Kit contains DNA of a known sequence that is prepared with BigDye™ Terminator v3.1 to perform one spectral calibration/installation check and/or one control sequencing run on the SeqStudio™ or 3500/3500xL Genetic Analyzers. The DNA contained in the preparation has been lyophilized to maximize stability.

## Contents and storage

Contents	Amount	Storage
3500/3500xL Sequencing Standards, BigDye™ Terminator v3.1	4 tubes	-25°C to -15°C

## Required materials not supplied

Unless otherwise indicated, all materials are available through [thermofisher.com](http://thermofisher.com). MLS: Fisher Scientific ([fisherscientific.com](http://fisherscientific.com)) or other major laboratory supplier.

Contents	Source
Hi-Di™ Formamide	4311320
Plates	See the user guide for the instrument
Septum	See the user guide for the instrument

## Control sequence

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1 GAATTCCTCCCT GCAGGCGTGG CTGCAGCCTG GTTATGATTA CTGTTAATGT TGCTACTACT GCTGACAATG CTGCTGCTGC
81 TTCTCCTCAC TGTCTCCACT TCCTTGAACA ATGCGCCGTC ATGCTTCTTT TGCTCCCGC TGCTCCAGAA AGCTAGGCCG
161 CAGATCAGAA CCACCACAGT CAATATCACC ACCTTCCTCT TATAGATTCG GAATCTCATG ATAGGGGCTC AGCCTCTGTG
241 CGAGTGGAGA GAAGTTTGCA GGCGAGCTGA GGAGCAATTG CAGGTGATAT GATGTGCTCG GCTCAAGAAG CGGGCCCGGA
321 GAGGAAGAAG TCGTGCCGGG GCTAATTATT GGCAAAACGA GCTCTGTGTTG TAAACATTGA TCCAACCTGGA ATGTCACTAA
401 TGGCGAATCA ATATCCATA AGGCATGATG GTTGCTCAGA GGCAGGAGAA GAGCAACGAA TACGATCCTA TAAAAGATAA
481 AACATAAATA AACAGTCTTG ATTATATCTT GGGTATTAAG GCCACAATCA GAACAAATAT ATGCTTTGTA TCTTTTCTTG
561 CCTTCTTCAT TACCAACTGC TTCCGCGGCC ACATTAAGAG AACTTGTGGT AAGATAAGAA GATATTTTAT TCGTTCCTGCT
641 GACTTGCTGG ATGTCGGGAA ATATCTGCA TTTGATAAGA GGCGGTTAAT TGCAGATATA ATTGGTAGTG AAAAGGGTCTG
721 TTGCTATGGT CACCGTGAAG CGAGTACAGC AGCACAAAGAA TGTGTGCCGT TCTCAGTTAA TATTGTTTGA ATATGGTAAC
801 CTGTTTTAGT CGGTTTAAAG GTAAGAAGAT CTAACCAAAA ACAACACTGC AGTACTGAT TGTAGTATTT ATTTTTTTTAC
881 TTAATCTTAA TTTTGGTGTG AACATCAACG GCGCACTTCA ACCAATACTC CAATGTTTTA TCCATCGACA TGACGTTTCA
961 GATAGGGTTG AGTGTGTGTC CAGTTTGGAA CAAGAGTCCA CTATTAAGA ACCTGGACTC CAACGTCAAA GGGCGAAAAA
1041 CCGTCTATCA GGGCGATGGC CCACTACGTG AACCATCACC CAAATCAAGT TTTTGGGGT CGAGGTGCCG TAAAGCACTA
1121 AATCGGAACC CTAAGGGGAG CCCCCGATTT AGAGCTTGAC GGGGAAAGCC GCGGAACGTG GCGAGAAAGG AAGGGAAGAA
1201 AG
    
```

## Prepare the sequencing standard for a spectral calibration

1. Briefly centrifuge the sequencing standard tube to collect contents.
2. Resuspend 1 tube of the sequencing standard (standard) with 300 µL of Hi-Di™ Formamide.
3. Vortex for 1 minute at full speed, then centrifuge briefly.
4. Cap, heat the microcentrifuge tube at 95°C for 2 minutes to denature the DNA fragments, then immediately place on ice.
5. Dispense 10 µL of the denatured standard into a 96-well microtiter plate.
  - For 4-capillary instruments: use wells A1 to D1.
  - For 8-capillary instruments: use wells A1 through H1.
  - For 24-capillary instruments: use wells A1 through H3.
6. Centrifuge the plate to ensure that the standard is positioned at the bottom of the wells and free of bubbles.
7. Cover the plate with a septa.

For more information, see the user guide or quick reference for your instrument.

## Limited product warranty

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**Revision history:** Pub. No. 4404319

Revision	Date	Description
C	04 May 2018	Corrected dye set for sequencing from E to Z.
B	26 June 2017	Added support for SeqStudio™ Genetic Analyzer
A	6 March 2009	New document

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## Prepare the sequencing standard for sequencing

1. Briefly centrifuge the sequencing standard tube to collect contents.
2. Resuspend 1 tube of the sequencing standard (standard) with 300 µL of Hi-Di™ Formamide.
3. Vortex for 1 minute at full speed, then centrifuge briefly.
4. Cap, then heat the microcentrifuge tube at 95°C for 2 minutes to denature the DNA fragments and immediately place on ice.
5. Dispense 10 µL of the denatured standard into a 96-well microtiter plate.
  - For 4-capillary instruments: use wells A1 to D1.
  - For 8-capillary instruments: use wells A1 through H1.
  - For 24-capillary instruments: use wells A1 through H3.
6. Centrifuge the plate to ensure that the standard is positioned at the bottom of the wells and free of bubbles.
7. Cover the plate with a septa.
8. Use the appropriate default Sequencing Module and Dye Set Z to run samples. For more information, see the user guide or quick reference for your instrument.