3700 / 3730 BigDye® Terminator v1.1 Sequencing Standard

Product Insert

This kit contains four vials, each of which contains DNA prepared with the BigDye® Terminator v1.1 Cycle Sequencing Kit. The four vials can be used to perform four spectral calibrations or four sequencing runs. Each run injects sample into 48 capillaries for the 3730 DNA Analyzer, 96 capillaries for the 3730*xl* DNA Analyzer, and 96 injections for the ABI PRISM® 3700 DNA Analyzer. The DNA contained in the preparation has been lyophilized to maximize stability.

Control Sequence

An electronic copy of the Control Sequence can be obtained by contacting your local Field Service Engineer.

AATTCCCTGC	AGGCGTGGCT	GCAGCCTGGT	TATGATTACT	GTTAATGTTG	CTACTACTGC	TGACAATGCT	70
GCTGCTGCTT	CTCCTCACTG	TCTCCACTTC	CTTGAACAAT	GCGCCGTCAT	GCTTCTTTTG	CCTCCCGCTG	140
CTCCAGAAAG	CTAGGCCGCA	GATCAGAACC	ACCACAGTCA	ATATCACCAC	CTTCCTCTTA	TAGATTCGGA	210
ATCTCATGAT	AGGGGCTCAG	CCTCTGTGCG	AGTGGAGAGA	AGTTTGCAGG	CGAGCTGAGG	AGCAATTGCA	280
GGTGATATGA	TGTGCTCGGC	TCAAGAAGCG	GGCCCGGAGA	GGAAGAAGTC	GTGCCGGGGC	TAATTATTGG	350
CAAAACGAGC	TCTTGTTGTA	AACATTGATC	CAACTGGAAT	GTCACTAATG	GCGAATCAAT	ATTCCATAAG	420
GCATGATGGT	TGCTCAGAGG	CAGGAGAAGA	GCAACGAATA	CGATCCTATA	AAAGATAAAA	CATAAATAAA	490
CAGTCTTGAT	TATATTCTGG	GTATTAAAGC	CACAATCAGA	ACAAATATAT	GCTTTGTATC	TTTTCTTGCC	560
TTCTTCATTA	CCAACTGCTT	CCGCGGCCAC	ATTAAGAGAA	CTTGTGGTAA	GATAAGAAGA	TATTTTATTC	630
GTTCTGCTGA	CTTGCTGGAT	GTCGGGAAAT	ATTCTGCATT	TGATAAGAGG	CGGTTAATTG	CAGATATAAT	700
TGGTAGTGAA	AAGGGTCGTT	GCTATGGTCA	CCGTGAAGCG	AGTACAGCAG	CACAAGAATG	TGTGCCGTTC	770
TCAGTTAATA	TTGTTTGAAT	ATGGTAACCT	GTTTTAGTCG	GTTTAAAGGT	AAGAAGATCT	AACCAAAAAC	840
AACACTGCAG	TGACTGATTG	TAGTATTTAT	TTTTTTACTT	AATCTTAATT	TTGGTGTAAA	CATCAACGGC	910
GCACTTCAAC	CAATACTCCA	ATGTTTTATC	CATCGACATG0	ACGTTCGAGA	TAGGGTTGAG	TGTTGTTCCA	980
GTTTGGAACA	AGAGTCCACT	ATTAAAGAAC	GTGGACTCCA	ACGTCAAAGG	GCGAAAAACC	GTCTATCAGG	1050
GCGATGGCCC	ACTACGTGAA	CCATCACCCA	AATCAAGTTT	TTTGGGGTCG	AGGTGCCGTA	AAGCACTAAA	1120
TCGGAACCCT	AAAGGGAGCC	CCCGATTTAG	AGCTTGACGG	GGAAAGCCGG	CGAACGTGGC	GAGAAAGGAA	1190
GGGAAGAAAG							1200

SAMPLE PREPARATION

1. Resuspend one tube of the Sequencing Standard with 1 mL of Hi-Di™ Formamide (P/N 4311320).

2. Vortex thoroughly, then spin briefly in a microcentrifuge.

3. Heat the Standard at 95°C for 2 minutes to denature and immediately place on ice.

4. For a SPECTRAL CALIBRATION run on the 3730 / 3730*xl* or a STANDARD SEQUENCING run on the 3730 / 3730*xl* / 3700:

   a. If a 96-well optical reaction plate is used, dispense 10 µL of standard into every well. If a 384-well optical reaction plate is used, dispense 5 µL of standard into the corresponding wells for a single 96 injection (i.e. A1, C1, E1, G1, I1,K1, M1, O1, A3, C3, etc.).
   b. Centrifuge the plate to ensure that the samples are at the bottom of the wells.
   c. For specifics on how to complete a matrix run or a standard sequencing run on the 3730 / 3730*xl*, refer to the Applied Biosystems 3730 / 3730*xl* DNA Analyzers User Reference Guide (P/N 4331468) and Applied Biosystems 3730 / 3730*xl* DNA Analyzers Sequencing Chemistry Guide (P/N 4331467).
   For specifics on how to create a standard sequencing run on the 3700 instrument, refer to the ABI PRISM® 3700 DNA Analyzer User's Reference Manual (P/N 4306152) and the ABI PRISM® 3700 DNA Analyzer Quick Start Guide for Sequencing (P/N 4306155). Also, see Table 1 below.

   For a SPECTRAL CALIBRATION run on the 3700 instrument:

   a. Dispense 200 µL of the denatured standard into each of two 0.2 mL MicroAmp® Reaction Tubes.
   b. Place the MicroAmp® Tubes into wells 9 and 10 of the right 8-bar.
   c. From the Module Editor, verify that the Run Time of the Standard Spectral Module is 4200 sec.
   For specifics on how to create a matrix run on the 3700 instrument, please refer to the ABI PRISM® 3700 DNA Analyzer User's Reference Manual (P/N 4306152). Also, see Table 1 below.

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TABLE 1

Instrument	Run Type	array	polymer	Collection Version	Dye Set	Module	Parameter file
3730	Spectral	36 cm	POP-7	V1.0	E	Spect36_SeqStd_POP7	SeqStd{E}.par
	Sequencing	36 cm	POP-7	V1.0	E	StdSeq36_POP7	
3730	Spectral	50 cm	POP-7	V1.0	E	Spect50_SeqStd_POP7	SeqStd{E}.par
	Sequencing	50 cm	POP-7	V1.0	E	StdSeq50_POP7	
3730xl	Spectral	36 cm	POP-7	V1.0	E	Spect36_SeqStd_POP7	SeqStd{E}.par
	Sequencing	36 cm	POP-7	V1.0	E	StdSeq36_POP7	
3730xl	Spectral	50 cm	POP-7	V1.0	E	Spect50_SeqStd_POP7	SeqStd{E}.par
	Sequencing	50 cm	POP-7	V1.0	E	StdSeq50_POP7	
3700	Spectral	50 cm	POP-5	V1.1	E	SpectSQ1.1_POP5	SeqStd{Sequencing-SetE}.par
	Spectral	50 cm	POP-5	V2.0	E	SpectSQ2_POP5	SeqStd{Sequencing-SetE}.par
	Spectral	50 cm	POP-6	V1.1	E	SpectSQ1.1_POP6	SeqStd{Sequencing-SetE}.par
	Spectral	50 cm	POP-6	V2.0	E	SpectSQ2_POP6	SeqStd{Sequencing-SetE}.par
	Sequencing	50 cm	POP-5	V1.1	E	Seq1.1_POP5	
	Sequencing	50 cm	POP-5	V2.0	E	Seq2_POP5	
	Sequencing	50 cm	POP-6	V1.1	E	Seq1.1_POP6	
	Sequencing	50 cm	POP-6	V2.0	E	Seq2_POP6	