GeneScan™ Installation Standard DS-33
6-FAM™, VIC®, NED™, PET™ dyes

Product P/N 4330397
Insert P/N 4363118 REV B
Printed in USA

Applied Biosystems

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

The GeneScan™ Installation Standard DS-33 contains 4 tubes of pooled PCR products. In addition to the pooled PCR products, the kit also contains a tube of GeneScan™ -500 LIZ® Size Standard. To generate the pooled products, CEPH individual 1347-02 has been amplified with 8 fluorescent PCR primer pairs which amplify the selected microsatellite loci listed below.

Note: With the retirement of the ABI PRISM® 377 DNA Sequencer this kit no longer contains the gel loading buffer. If you need to continue to purchase the loading buffer it is available as a separate part (P/N 402055).

Average Sizes loci DS-33 Install Kit by Instrument Platform

Locus	POP-4 ™ 310 sizes	POP-4 ™ 3130 and 3100 series sizes	POP-6 ™ 3700 sizes	POP-7 ™ 3730/3730*xl* sizes
D20S119 [FAM]	112 117	111 117	114 120	113 119
D9S1690 [FAM]	236 238	236 238	239 241	237 239
D5S644 [VIC]	84 96	83 95	86 98	85 97
D5S424 [VIC]	216 218	216 218	219 221	217 219
D9S288 [NED]	137 145	137 145	139 147	138 146
D18S462 [NED]	303 303	302 302	304 304	303 303
D6S289 [PET]	173 175	173 175	174 176	174 176
D15S117 [PET]	338 340	338 340	339 341	338 340

310, 3700, 3130 and 3100 Series Systems sizes were generated using the GS500(-250)LIZ sizing file. 3730 / 3730*xl* sizes were generated using "GS500 LIZ_3730" sizing file.

Sample Preparation

WARNING! CHEMICAL HAZARD. Hi-Di™ Formamide. Exposure causes eye, skin, and respiratory tract irritation. It is a possible developmental and birth defect hazard. Read the MSDS, and follow the handling instructions. Wear appropriate protective eyewear, clothing, and gloves.

The Hi-Di™ Formamide (P/N 4311320) is not included in the kit.

310 Genetic Analyzer

1. Thaw and thoroughly mix the contents of one tube of the Installation Standard DS-33 and spin briefly in a microcentrifuge.
2. Prepare an injection mix based on the following ratio
   **(prepare an amount adequate for the number of samples being loaded):
   0.5 µL size standard (GeneScan™ 500 LIZ® Size Standard)
   12 µL Hi-Di™ Formamide.
3. Mix 1 µL of the GeneScan™ Installation Standard DS-33 with 12.5 µL of injection mix (prepared in step 2).
4. Denature at 95°C for five minutes; quick chill on ice until sample is loaded.
5. Place the sample tubes (with 13 µL volume) in the autosampler tray.
6. For data collection on the 310 Genetic Analyzer, use run module GS STR POP4 (1 ml) G5 or GS STR POP4 (1 ml) G5 V2.

Note: For more information on the GS STR POP4 (1 ml) G5 V2 module refer to 310 User Bulletin: "G5 V2 module for use with Dye Set 33". (P/N 4339367).

3130 and 3100 Series Systems
1. Thaw and thoroughly mix the contents of one tube of the GeneScan™ Installation Standard DS-33 and spin briefly in a microcentrifuge. 2. Prepare the Installation Reagent by combining 5 µL of the GeneScan™ Installation Standard, 5 µL of the GeneScan™ -500 LIZ® Size Standard, and 190 µL of Hi-Di™ Formamide (P/N 4311320) in a 1.5 mL microcentrifuge tube. Once prepared, the installation standard must be consumed within 16 hours. 3. Mix thoroughly and spin briefly in a microcentrifuge. 4. Denature and dispense reagents into a 96-well microtiter plate. For 16 capillaries, dispense 10 µL into 16 wells (A1-H1, A2-H2). For 4 capillaries, dispense 10 µL into 4 wells (A1, B1, C1, D1). 5. Place the 96-well microtiter plate on the instrument. 6. Refer to your User's Manual or Getting Started Guide for instructions on running samples.

3700 DNA Analyzer
Preparing the GeneScan™ Installation Standard DS-33 for the ABI PRISM® 3700 DNA Analyzer 1. Thaw and thoroughly mix the contents of one tube of the GeneScan™ Installation Standard DS-33 and spin briefly in a microcentrifuge. 2. Prepare the Installation Reagent by combining 50 µL of the GeneScan™ Installation Standard, 50 µL of the GeneScan™ -500 LIZ® Size Standard and 900 µL of Hi-Di™ Formamide (P/N 4310482) in a 1.5 mL microcentrifuge tube. This volume is sufficient for 2 consecutive runs on the 3700 DNA Analyzer. Once prepared, the installation standard must be consumed within 16 hours. 3. Mix thoroughly and spin briefly in a microcentrifuge. 4. Dispense and then denature reagents in a 96-well microtiter plate. 5. Place the 96-well microtiter plate on the ABI PRISM® 3700 DNA Analyzer. 6. Run the samples using the GeneScan® Software Run Module and indicate Dye Set G5.

3730/3730*xl* DNA Analyzers (48 capillaries Only)*
Preparing the GeneScan™ Installation Standard DS-33 for the 3730 / 3730*xl* DNA Analyzers 1. Thaw and thoroughly mix the contents of one tube of the Installation Standard DS-33 and spin briefly in a microcentrifuge. 2. Prepare the Installation Reagent by combining 25 µL of the Installation Standard, 25 µL of the GeneScan™ 500 LIZ® Size Standard, and 460 µL of Hi-Di™ Formamide (P/N 4310482) in a 1.5 mL microcentrifuge tube. Once prepared, the installation standard must be consumed within 16 hours. 3. Mix thoroughly and spin briefly in a microcentrifuge. 4. Cap and heat the microcentrifuge tube at 95°C for five minutes to denature the DNA fragments and immediately place on ice. 5. If a 96-well optical reaction plate is used, dispense 10 µL of standard into every other column (i.e. A1-H1, A3-H3, etc). If a 384-well optical reaction plate is used, dispense 5 µL of standard into the corresponding wells for a single 48 capillary injection (i.e A1, C1, E1, G1, I1,K1, M1, O1, A5, C5, etc.). 6. Centrifuge the plate to ensure that the samples are at the bottom of the wells. Confirm that there are no bubbles at the bottom of the plate. 7. Run the samples using the Gene Mapper Software Run Module and indicate Dye Set G5. For specifics on how to complete a fragment analysis run on the 3730 or 3730*xl* DNA Analyzer refer to the Applied Biosystems 3730 / 3730*xl* DNA Analyzers User Reference Guide. * Not for use on 96 capillary array.

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