

Yfiler™ Plus PCR Amplification Kit (100 and 500 reactions)

Catalog Numbers 4484678 and 4482730

Pub. No. 4485609 Rev. C

Note: For safety and biohazard guidelines, see the “Safety” appendix in the *Yfiler™ Plus PCR Amplification Kit User Guide* (Pub. No. 4485610). Read the Safety Data Sheets (SDSs) and follow the handling instructions. Wear appropriate protective eyewear, clothing, and gloves.

Important guidelines

- Thaw reagents completely before first use. Store components at 2–8°C after first use to avoid freeze/thaw cycles.
- Keep reagents away from any source of contaminating DNA, especially from previously amplified PCR products and the allelic ladder.
- The primer set and allelic ladder contain primers that are labeled with light-sensitive dyes. Protect the primers and allelic ladder from light; do not leave them exposed on the laboratory bench.
- To obtain optimal results, follow the procedures in the *Yfiler™ Plus PCR Amplification Kit User Guide* (Pub. No. 4485610).

Contents and storage

The Yfiler™ Plus PCR Amplification Kit contains sufficient quantities of the following reagents to perform: 100 (Cat. No. 4484678) or 500 (Cat. No. 4482730) amplifications at 25 µL/amplification.

Note: If there is more than one tube or bottle for a single reagent, thaw only the number of tubes or bottles required for the current number of reactions.

Table 1 Yfiler™ Plus PCR Amplification Kit

Contents	100 reactions (Cat. No. 4484678)	500 reactions (Cat. No. 4482730)	Storage
Yfiler™ Plus Master Mix Contains MgCl ₂ , dATP, dGTP, dCTP, and dTTP, bovine serum albumin, enzyme, and 0.05% sodium azide in buffer and salt.	2 × 0.5 mL	4 × 1.25 mL	–25°C to –15°C on receipt. 2°C to 8°C after first use.
Yfiler™ Plus Primer Set Contains locus-specific 6-FAM™, VIC™, NED™, TAZ™, and SID™ dye-labeled and unlabeled primers in buffer. The primers amplify the Y-STR loci DYS19, DYS385 a/b, DYS387S1 a/b, DYS389 I/II, DYS390, DYS391, DYS392, DYS393, DYS437, DYS438, DYS439, DYS448, DYS449, DYS456, DYS458, DYS460, DYS481, DYS518, DYS533, DYS570, DYS576, DYS627, DYS635 (Y GATA C4), and Y GATA H4.	2 × 0.25 mL	2 × 1.25 mL	–25°C to –15°C on receipt. 2°C to 8°C after first use. Store protected from light.

Contents	100 reactions (Cat. No. 4484678)	500 reactions (Cat. No. 4482730)	Storage
Yfiler™ Plus Allelic Ladder Contains the following amplified alleles: <ul style="list-style-type: none"> • 6-FAM™ dye (blue): DYS389I 9–17; DYS389II 24–35; DYS576 10–25; DYS627 11–27; DYS635 15–30. • VIC™ dye (green): DYS19 10–19; DYS391 5–16; DYS448 14–24; DYS458 11–24; DYS460 7–14; Y GATA H4 8–15. • NED™ dye (yellow): DYS390 17–29; DYS392 4–20; DYS438 6–16; DYS456 10–24; DYS518 32–49. • TAZ™ dye (red): DYS385 a/b 32–49; DYS437 10–18; DYS449 22–40; DYS570 10–26. • SID™ dye (purple): DYF387S1 a/b 30–44; DYS393 7–18; DYS439 6–17; DYS481 17–32; DYS533 7–17. 	2 × 0.025 mL	2 × 0.05 mL	–25°C to –15°C on receipt. 2°C to 8°C after first use. Store protected from light. IMPORTANT! The allelic ladder contains PCR products. Do not amplify. To avoid contamination, store the allelic ladder separate from the other kit components and unamplified DNA.
DNA Control 007 Contains 2 ng/μL of human male genomic DNA in 0.05% sodium azide and buffer.	1 × 0.05 mL	2 × 0.05 mL	–25°C to –15°C on receipt. 2°C to 8°C after first use.

Required materials not supplied

Unless otherwise indicated, all materials are available through thermofisher.com.

Item	Cat. No.
GeneScan™ –600 LIZ™ Size Standard v2.0, 2 × 200 μL IMPORTANT! Do not use GeneScan™ 350 ROX™, GeneScan™ 500 ROX™, or GeneScan™ 500 LIZ™ Size Standards with this kit.	4408399
Low-TE buffer (10 mM Tris, 0.1 mM EDTA, pH 8.0)	Teknova T0223
Prep-n-Go™ Buffer (for use with buccal swab substrates)	4471406
Prep-n-Go™ Buffer (for use with untreated paper substrates)	4467079

Performance characteristics

The Yfiler™ Plus kits are developed and manufactured by Thermo Fisher Scientific. We test each lot of kits to ensure that the kits perform according to specifications.

Each Applied Biosystems™ Yfiler™ Plus PCR Amplification Kit contains reagents that are optimized to amplify and type:

- 1 ng of DNA Control 007
- Purified and quantified samples with approximately 0.5 to 1.5 ng of human DNA
- Unpurified, unquantified, single-source blood or buccal samples on treated paper, untreated paper, and swab substrates

Follow the protocol in the *Yfiler™ Plus PCR Amplification Kit User Guide* (Pub. No. 4485610) to collect and analyze data on the instruments and software that is supported for use with this kit.

Limited product warranty

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Revision history: Pub. No. 4485609

Revision	Date	Description
C	10 January 2019	<ul style="list-style-type: none">Throughout the product information sheet, update DYS387S1 to DYF387S1.In Table 1 on page 1, update the number of primer set tubes to 2 tubes for Cat. No. 4484678.
B	27 December 2016	Non-technical changes: reorganized content
A	24 March 2014	New document

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