

# 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 <sub>2</sub> , 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"> <li>• 6-FAM™ dye (blue): DYS389I 9–17; DYS389II 24–35; DYS576 10–25; DYS627 11–27; DYS635 15–30.</li> <li>• VIC™ dye (green): DYS19 10–19; DYS391 5–16; DYS448 14–24; DYS458 11–24; DYS460 7–14; Y GATA H4 8–15.</li> <li>• NED™ dye (yellow): DYS390 17–29; DYS392 4–20; DYS438 6–16; DYS456 10–24; DYS518 32–49.</li> <li>• TAZ™ dye (red): DYS385 a/b 32–49; DYS437 10–18; DYS449 22–40; DYS570 10–26.</li> <li>• SID™ dye (purple): DYF387S1 a/b 30–44; DYS393 7–18; DYS439 6–17; DYS481 17–32; DYS533 7–17.</li> </ul>	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.  <b>IMPORTANT!</b> 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](http://thermofisher.com).

Item	Cat. No.
GeneScan™ –600 LIZ™ Size Standard v2.0, 2 × 200 μL <b>IMPORTANT!</b> 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"><li>Throughout the product information sheet, update DYS387S1 to DYF387S1.</li><li>In Table 1 on page 1, update the number of primer set tubes to 2 tubes for Cat. No. 4484678.</li></ul>
B	27 December 2016	Non-technical changes: reorganized content
A	24 March 2014	New document

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