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Yfiler™ Plus PCR Amplification Kit









Applied Biosystems™

Yfiler™ Plus PCR Amplification Kit

Note: The Yfiler Plus kit is now approved for use by laboratories generating DNA profiles for inclusion in the

Read more

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| Catalog Number | No. of Reactions |
|----------------|------------------|
| 4484678 | 100 Reactions |
| 4482730 | 500 Reactions |

| Thermo Fisher SCIENTIFIC | | | | Q | $\dot{\beth}$ |
|-----------------------------|---------------|------------|-----|---|---------------|
| Price (MDL) / Each | | | | | |
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| No. of Reactions: | 100 Reactions | | | | |
| Product Overview | Figures | Documents | FAQ | | |

Note: The Yfiler Plus kit is now approved for use by laboratories generating DNA profiles for inclusion in the US National DNA Index System (NDIS) CODIS database.

The Yfiler Plus PCR Amplification Kit is designed for forensic laboratories that process highly challenging Y-STR casework and database samples. The Yfiler Plus kit is optimized to help improve resolution of trace evidence and sexual assault mixtures that contain small quantities of male DNA in a large background of female DNA and offers laboratories both the power of discrimination and the performance to enable accurate results in less time from challenging samples.

The Yfiler Plus PCR Amplification Kit is a 6-dye multiplex assay for short tandem repeats (STRs) that allows amplification from multiple male-specific sample types, such as male-male and male-female mixtures, and direct PCR amplification from single-source samples.

Key features of the Yfiler Plus PCR Amplification Kit:

- Improved discrimination capacity through new, highly discriminating markers
- Improved performance with degraded samples and PCR inhibitors
- Improved genotyping accuracy through expanded allelic ladder and virtual bins
- Concordance with existing data in reference haplotype databases
- Increased workflow efficiency enabling faster time-to-results than previous Y-STR kits

Improved discrimination capacity

The Yfiler Plus PCR Amplification Kit enables multiplex amplification of the 17 Y-STR markers included in the AmpFLSTR Yfiler PCR Amplification Kits, as well as 10 new Y-STRs using 6-dye chemistry to offer the highest discriminatory capacity of any commercially available Y-STR kit. In particular, the inclusion of seven rapidly-mutating (RM) Y-STRs with mutation rates above $1 \times 10(-2)$ helps improve resolution of paternal lineage differentiation as well as helps with discrimination of closely-related males.

More information from challenging casework samples

Y-STR analysis is useful for processing of complex casework samples with trace quantities of male DNA in presence of high level of female DNA. These samples may include rape kit samples, body fluid with few or no sperm present, and fingernail scrapings from female victims of violent assaults. These samples often show DNA degradation and contain inhibitors that can make the analysis difficult and lead to inconclusive results. The Yfiler Plus kit harnesses the latest lopments in PCR amplification technology to help provide cleaner baseline and improved recovery of alleles with ures and highly inhibited samples.







- Blood and buccal samples on treated paper substrates, without the need for sample purification
- Blood samples collected on untreated paper substrates and treated with Prep-n-Go Buffer
- Buccal samples collected on swab substrates and treated with Prep-n-Go Buffer

Complete validated solution

Our products provide a complete solution for your human identification needs and include DNA quantification kits, a range of STR kits, instrumentation, software, and consumables. The Yfiler Plus kit is part of a comprehensively validated system for STR-based human identification. All reagents are developed in accordance with guidelines from leading worldwide forensic organizations such as SWGDAM and DAB.

For licensing and limited use restrictions visit thermofisher.com/HIDlicensing.

| Specifications | |
|----------------------------|---|
| Format | Kit |
| For Use With (Application) | Sequencing |
| Label or Dye | 6-FAM, LIZ, NED, SID, TAZ, VIC |
| No. of Reactions | 100 Reactions |
| Product Line | Yfiler™ |
| Product Type | Plus PCR Amplification Kit |
| Quantity | 100 reactions |
| Shipping Condition | Dry Ice |
| Target Loci | DYS438, DYS627, DYS458, DYS437, DYS391, DYS392, DYS635 (Y GATA C4), DYS19, DYS390, DYS439, DYS456, DYS393, DYS449, DYS387S1 a/b, DYS576, DYS460, DYS533, DYS389 I/I, DYS570, DYS385 a/b, DYS481, YGATA H4, DYS518, DYS448 |
| Unit Size | Each |







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- Yfiler Plus Primer Set, 2 tubes, 0.25 mL/tube, protect from light
- Yfiler Plus Allelic Ladder, 2 tubes, 0.025 mL/tube, protect from light

Store at -5 to -30°C upon receipt and at 2-8°C after initial use.

Figures



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Documents & Downloads

Certificates

Q Search by lot number or partial lot number

Search

| Lot # | Certificate Type | Date | Catalog Number(s) |
|---------|-------------------------|--------------|-------------------|
| 2503095 | Certificate of Analysis | May 12, 2025 | 4484678 |
| 2501094 | Certificate of Analysis | Mar 14, 2025 | 4484678 |

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| Product | Information | | | | |
| | | | | | |
| Manuals | 5 | | | | ^ |
| | Quick Reference: | Yfiler Plus PCR Amplificatio | n Kit - PCR and CE | | |
| | Quick Reference: | Yfiler Plus PCR Amplificatio | n Kit - PCR Setup: Treated | I and Untreated Paper | |
| | Quick Reference: | Yfiler Plus PCR Amplificatio | n Kit - PCR Setup: Swab S | Substrate | |
| | Quick Reference: | Yfiler Plus PCR Amplificatio | n Kit - PCR Setup: Extract | ed DNA | |
| | User Guide: Yfiler | Plus PCR Amplification Kit | | | |
| | Product Sheet: Yfi | ler Plus PCR Amplification | Kit (100 and 500 reactions) | | |
| PCF | User Bulletin: Prof | Flex PCR System Kit Validat | ion - PCR Amplification Ki | t validation on the ProFlex | |
| Scientifi | c Resources | | | | |
| | | | | | |
| Referen | ce Materials | | | | ^ |
| | Validation Certifica | ate: HID NIMBUS Presto QN | IA System | | |

