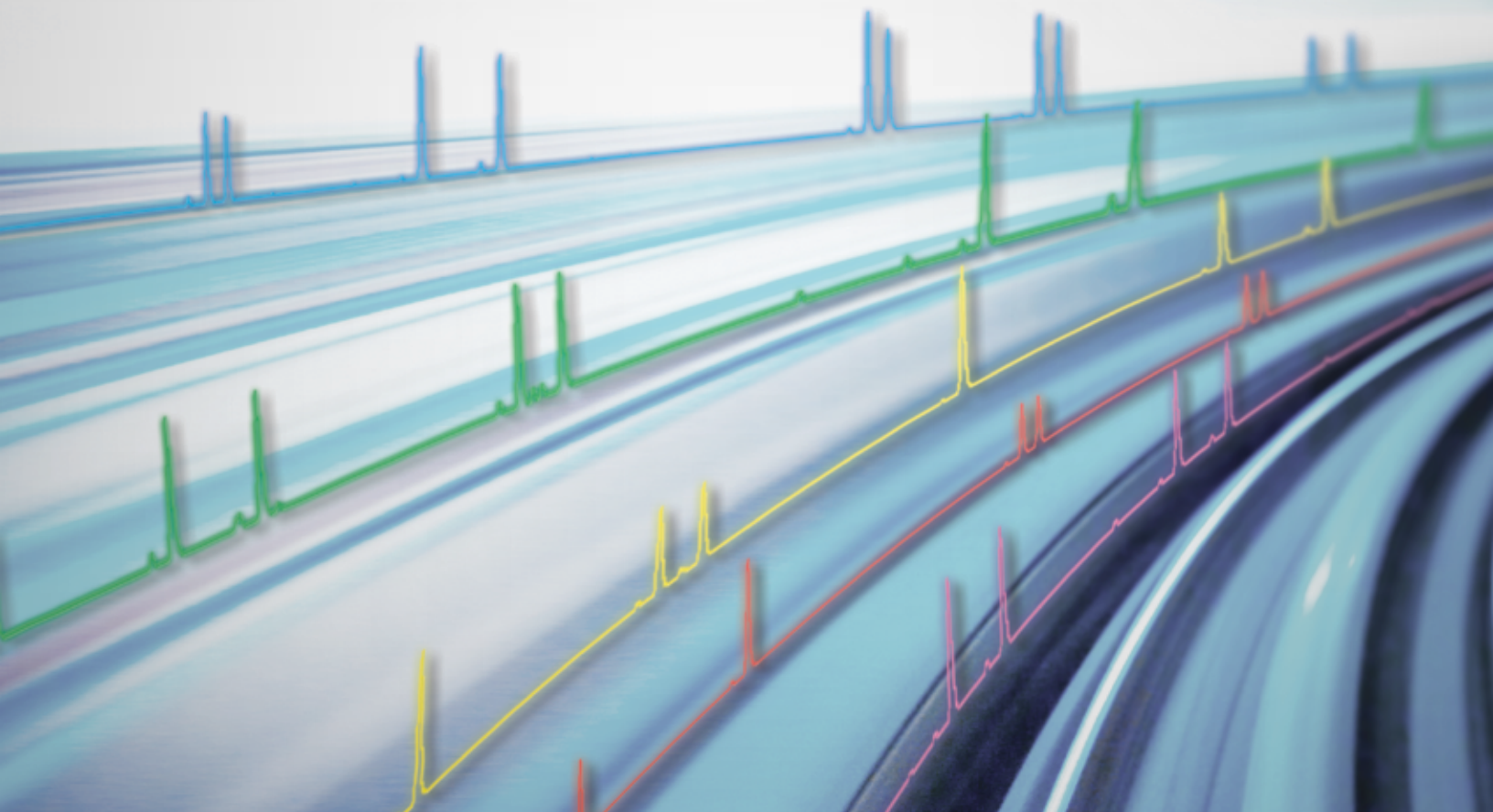


answers

that go further



GlobalFiler kits

Powered by 6-dye chemistry



GlobalFiler

Around the world, forensic labs are being asked to do more with less. That is why the Applied Biosystems™ GlobalFiler™ and GlobalFiler™ Express PCR Amplification Kits combine reduced amplification time with exceptional data recovery power.

Leveraging 6-dye Technology

For almost 20 years, Thermo Fisher Scientific has led the way in the evolution of STR technology and the development of 6-dye STR is no exception. The 6-dye configuration of the **GlobalFiler kits** enables exceptional performance with the most challenging samples.

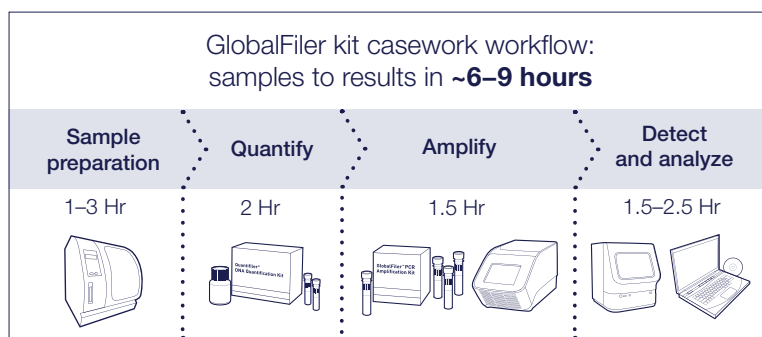
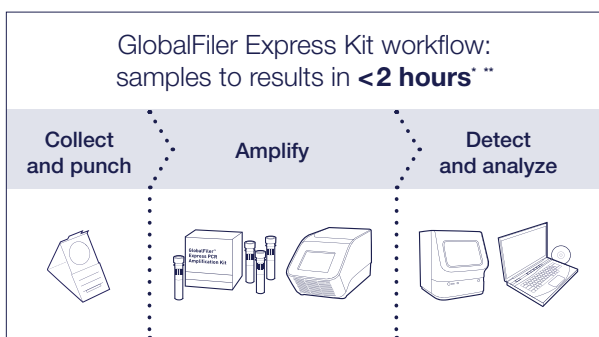
As part of the only fully integrated and validated forensic workflow, this new 6-dye, 24-loci technology is designed to deliver superior performance. And, it's backed by training, service, and support from Thermo Fisher.

Faster

Rapid DNA analysis from your existing capillary electrophoresis platform

Utilizing optimized reagents, thermal cycling parameters, and the latest advances in oligo synthesis and purification, this state-of-the-art chemistry enables up to 5 times faster amplification time than previous-generation kits.

- GlobalFiler Express Kit for single-source samples: **~40 minutes**
- GlobalFiler kit for casework samples: **~80 minutes**



*The GlobalFiler Express Kit is now approved by the FBI's National DNA Index System (NDIS) Board for use by laboratories generating offender DNA profiles for inclusion in the U.S. National NDIS CODIS database following the submission of data generated and evaluated by the Alabama Department of Forensic Sciences.

**Typical workflow for up to 48 single-source samples using Applied Biosystems™ thermal cyclers, genetic analyzers, and expert system analysis software.

“One of the great values of GlobalFiler kits is the intelligent design that looks to the future—enhancing discrimination power while also offering the best compatibility and concordance with the historical set of 40 million STR profiles registered in many national DNA databases around the world.”

—Antonio Alonso

Biology Department, National Institute of Toxicology and Forensic Sciences, Spain;
Project Manager, IDNADEX (Improving DNA Data Exchange).

Further

Up to 9 orders of magnitude more discrimination power

- 24-loci multiplex enables up to 9 orders of magnitude more discrimination power than previous-generation kits
- Includes 10 powerful mini-STR loci for increased information recovery from heavily degraded samples
- Enhanced buffer system enables superior performance on samples containing inhibitors
- Expanded sensitivity and the flexibility to add up to 15 μ L of sample enables increased allele recovery from low-level DNA samples



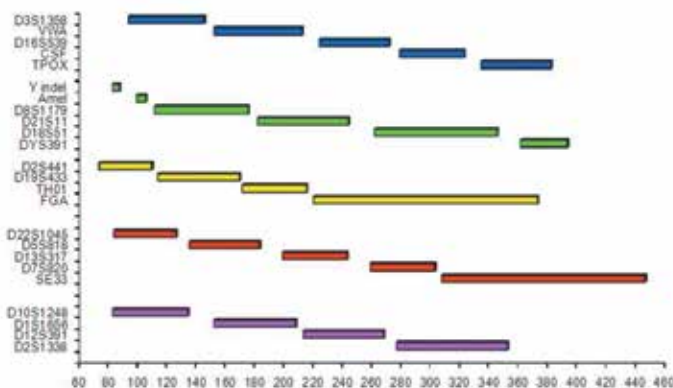
Global

Maximum database compatibility

As global forensic DNA databases rapidly expand, so does the need for more discriminating STR multiplexes that can maximize loci overlap. That's why **GlobalFiler kits** incorporate most commonly used loci—all in a single multiplex reaction.

GlobalFiler kits contain all of the STR loci commonly used in major global databases, including all markers recommended for inclusion by the CODIS Core Loci Working Group and those markers commonly used in Europe.

The multiplex selection of markers reduces the risk of adventitious matches while enabling more effective cross-border data sharing.



The GlobalFiler kit multiplex configuration includes all 24 loci with only 1 locus partially exceeding 400 base pairs. 10 mini-STR loci lie completely below 220 base pairs, and all gender-specific markers are located in the green VIC™ channel for convenience of interpretation.



Driving workflow efficiency

The GlobalFiler Express Kit has been optimized to deliver high-quality results with a wide range of single-source DNA sample and substrate inputs. The introduction of simplified fast amplification protocols has enabled workflow efficiency for single-source DNA samples. Untreated substrates such as swabs and (nontreated) papers utilize Applied Biosystems™ Prep-n-Go™ Buffer prior to amplification to facilitate lysis, enabling results similar to treated papers (Figures 1–3).

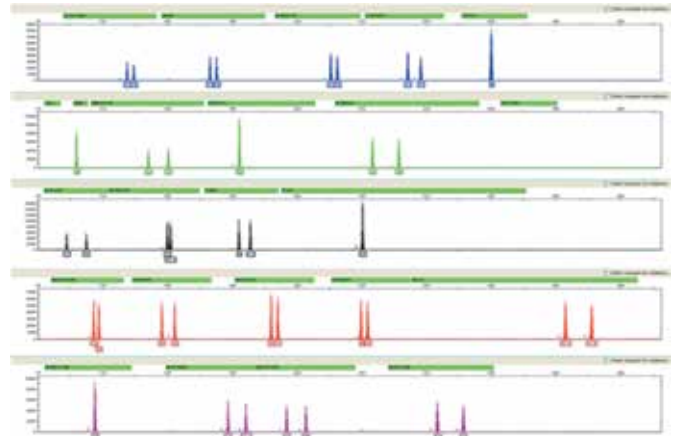


Figure 2. Direct amplification of cell lysate taken from a buccal sample on a Copan™ 4N6FLOQSwabs™ swab, which has been treated with Prep-N-Go buffer.

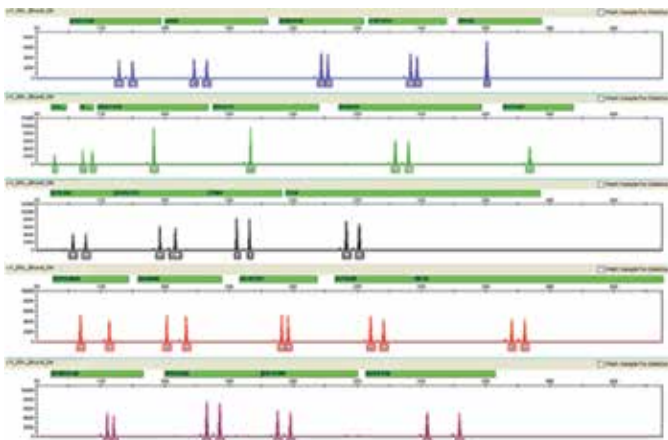


Figure 1. Direct amplification of a blood sample on FTA™ paper. Sample was punched directly into the Applied Biosystems™ GlobalFiler Express reaction mix.

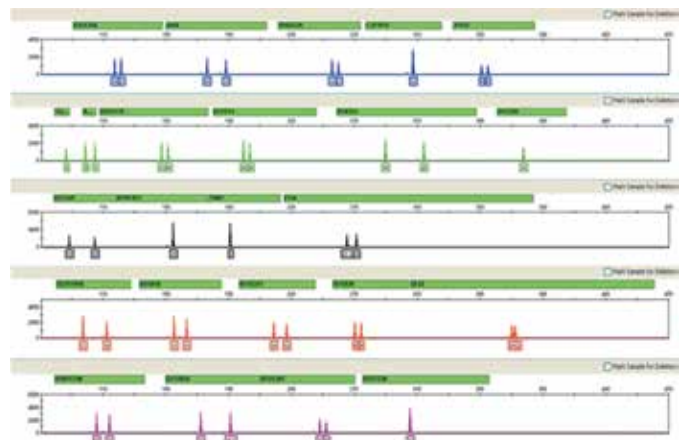


Figure 3. Direct amplification of a buccal sample punch taken from a Bode Buccal DNA Collector™ device, which has been treated with Prep-N-Go Buffer.

Do more with less

The GlobalFiler kit has been optimized to maximize the quality and quantity of genotyping results even with the most challenging samples. The robust master mix, 10 mini-STR markers, and expanded DNA input range generates more information for the most difficult samples—those that are highly degraded and/or inhibited.

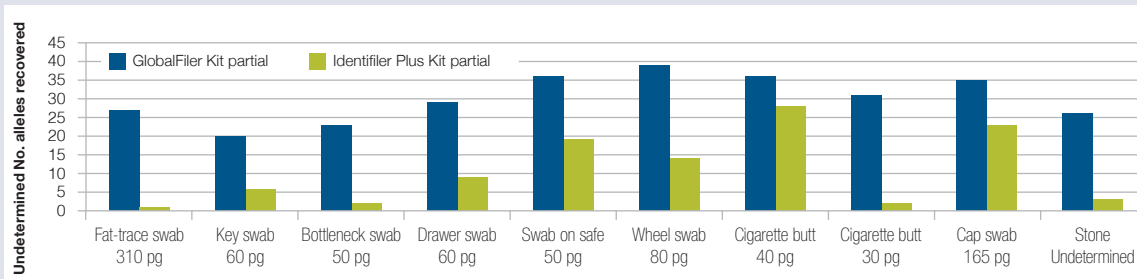


Figure 4. Challenging sample types amplified with both the Applied Biosystems™ AmpF/STR™ Identifiler™ Plus PCR Amplification Kit and the GlobalFiler kit (casework). The allele count per sample increases significantly due to the number of mini-STRs and robustness of the master mix included in the GlobalFiler kit, thus allowing for more meaningful database searches.

Find out more at thermofisher.com/globalfiler

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