

LIFE TECHNOLOGIES

HUMAN IDENTIFICATION



Go faster. Go further. Go global.

GlobalFiler® Kits  
Powered by 6-dye Chemistry™

\* Both the GlobalFiler® and GlobalFiler® Express kits are approved for use by laboratories generating DNA profiles for inclusion in the US National DNA Index System (NDIS) CODIS database.

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# GlobalFiler®

## THE WORLD'S MOST POWERFUL STR KITS

Around the world, forensic labs are being asked to do more with less. That is why GlobalFiler® STR Kits combine reduced amplification time with maximum data recovery power.

### Breakthrough 6-dye technology

For almost 20 years, we have led the way in the evolution of STR technology. And today, GlobalFiler® Kits utilize breakthrough 6-dye chemistry™ to enable optimal performance and unprecedented discrimination power.

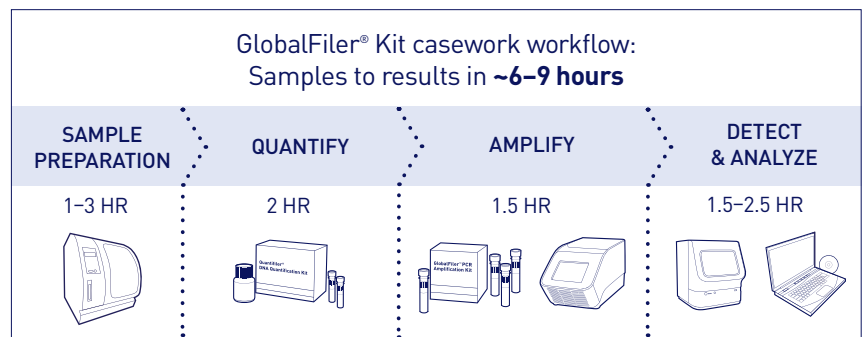
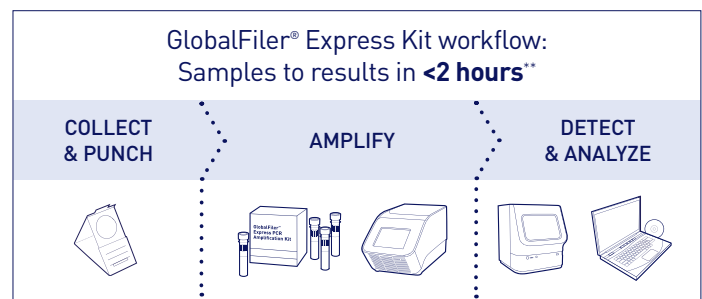
As part of the only fully integrated and validated forensic workflow, this new 6-dye, 24-locus technology is designed to deliver superior performance. And the workflow is backed by our dedicated training, service, and support teams.

## Go faster.

### Rapid DNA analysis from your existing CE platform

Using optimized reagents, improved 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**



\* Both the GlobalFiler® and GlobalFiler® Express kits are approved for use by laboratories generating DNA profiles for inclusion in the US National DNA Index System (NDIS) CODIS database.

\*\*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® 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)

## Go further.

Up to 9 orders of magnitude more discrimination power

- 24-locus 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 inhibited samples
- Expanded sensitivity and flexibility to add up to 15 µL of sample input volume enables increased allele recovery from low-level samples

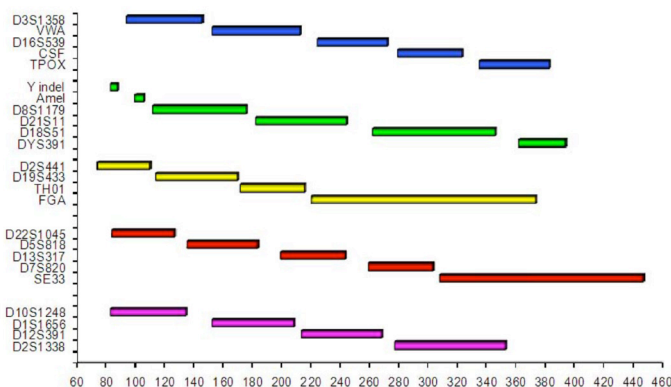


## Go global.

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 the GlobalFiler® Kits incorporate as many commonly used loci as possible—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
- 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 enables workflow efficiency for single-source DNA samples. Untreated substrates such as swabs and (non-treated) papers utilize Prep-n-Go™ buffer prior to amplification to facilitate lysis, enabling results similar to those from treated papers. (Figures 1–3.)

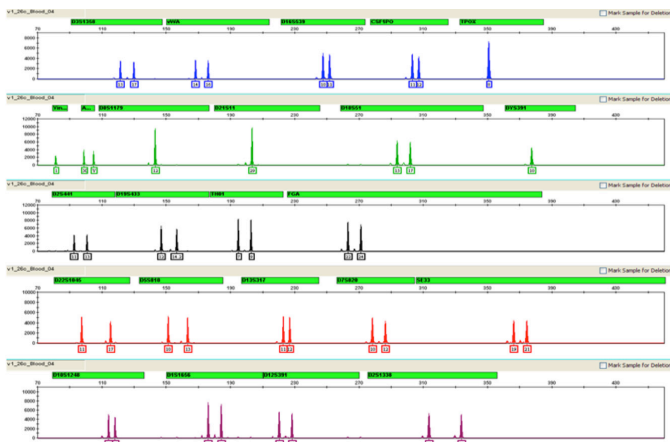


Figure 1. Direct amplification of a blood sample on FTA® paper. The sample was punched directly into the GlobalFiler® Express Reaction Mix.

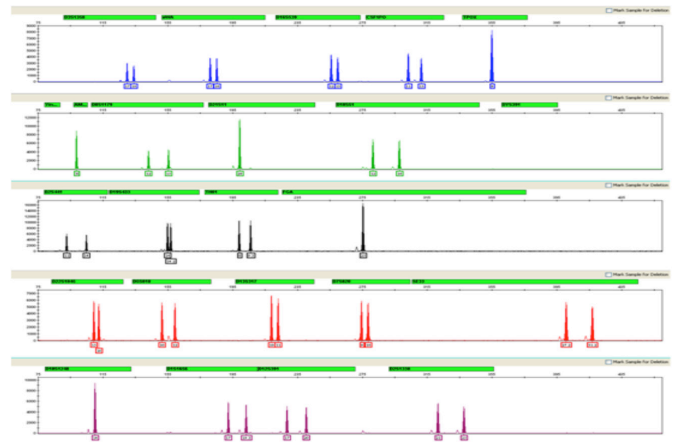


Figure 2. Direct amplification of cell lysate taken from a buccal sample on a Copan® 4N6FLOQSwabs™ swab that has been treated with Prep-N-Go™ buffer.

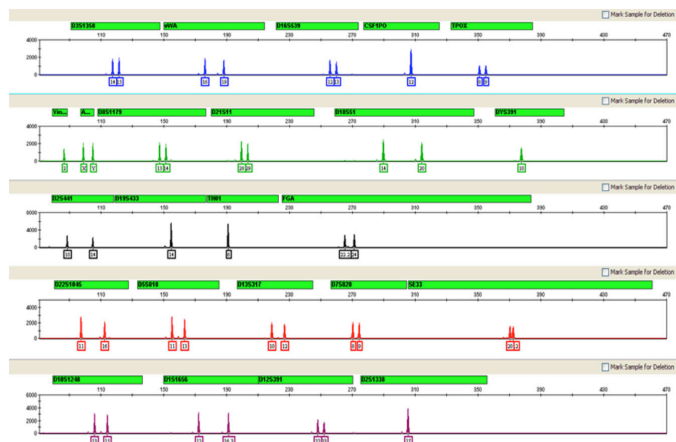
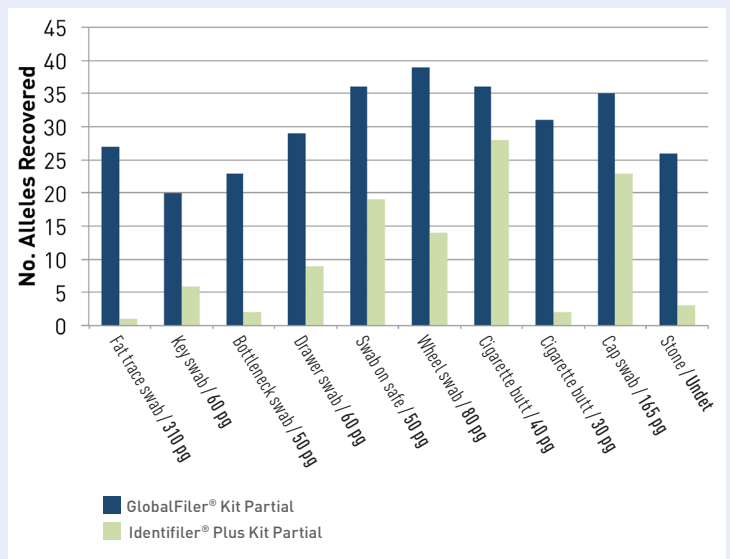


Figure 3. Direct amplification of a buccal sample punch taken from a Bode Buccal DNA Collector™ device that has been treated with Prep-N-Go™ buffer.

## 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 help generate more information for the most difficult samples—those that are highly degraded and/or inhibited.

Figure 4. Challenging sample types amplified with both the Identifier® Plus 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 [lifetechnologies.com/globalfiler](http://lifetechnologies.com/globalfiler)



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