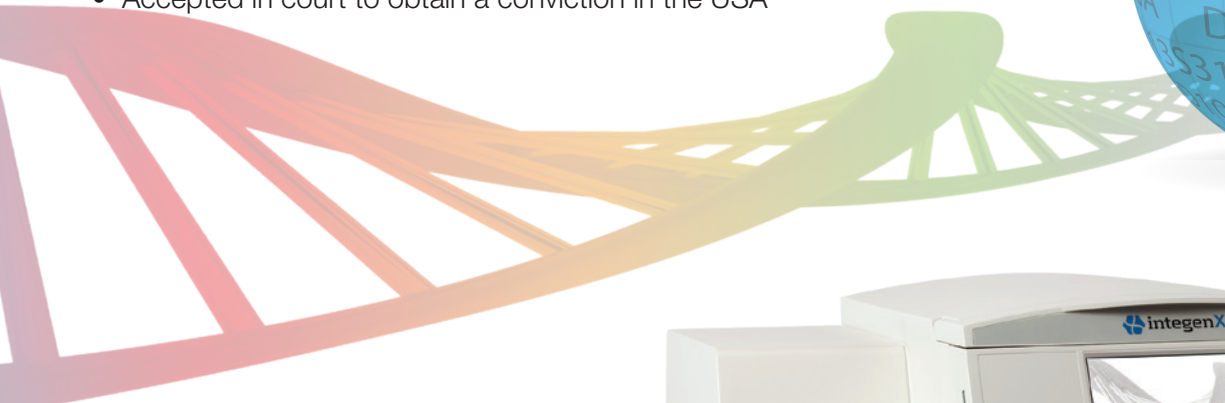


Anytime. Anywhere.



## RapidHIT™ GlobalFiler™ Express (GFE) Kit Developmental Validation and Applications Summary

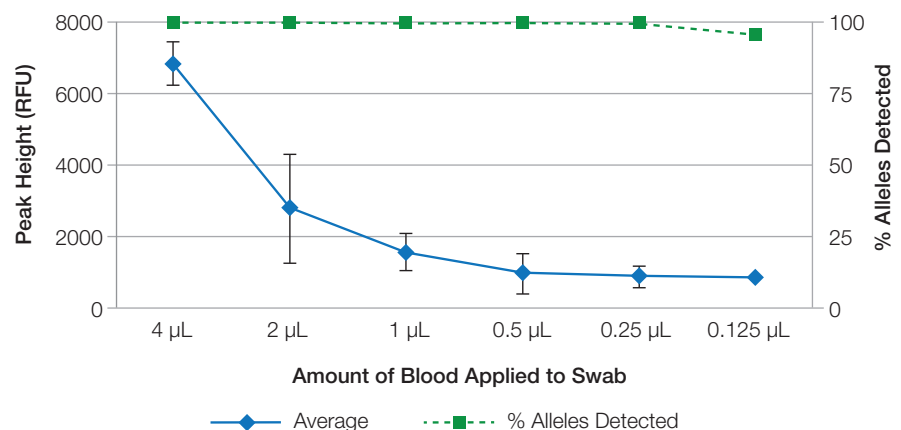
- Numerous profiles uploaded to CODIS
- >90% full profile success rate and CODIS success rate
- Run up to 8 samples in a single run
- Requires only ~3 minutes of hands-on time, less than 2 hours time to results
- Accepted in court to obtain a conviction in the USA



### Sensitivity

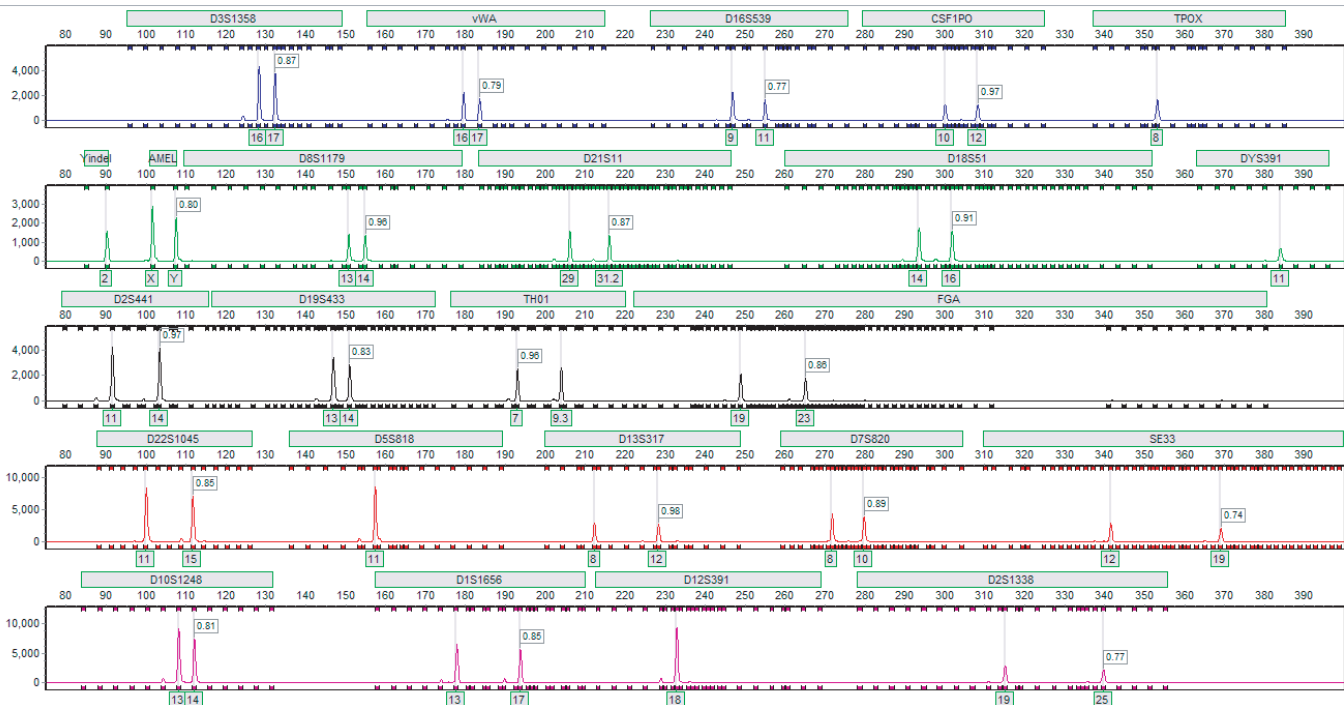
- Fully concordant for DNA levels equivalent to as low as 0.25  $\mu\text{L}$  of blood on cotton swab
- 90% of alleles detected with 0.125  $\mu\text{L}$  of blood

GFE Blood Titration Study

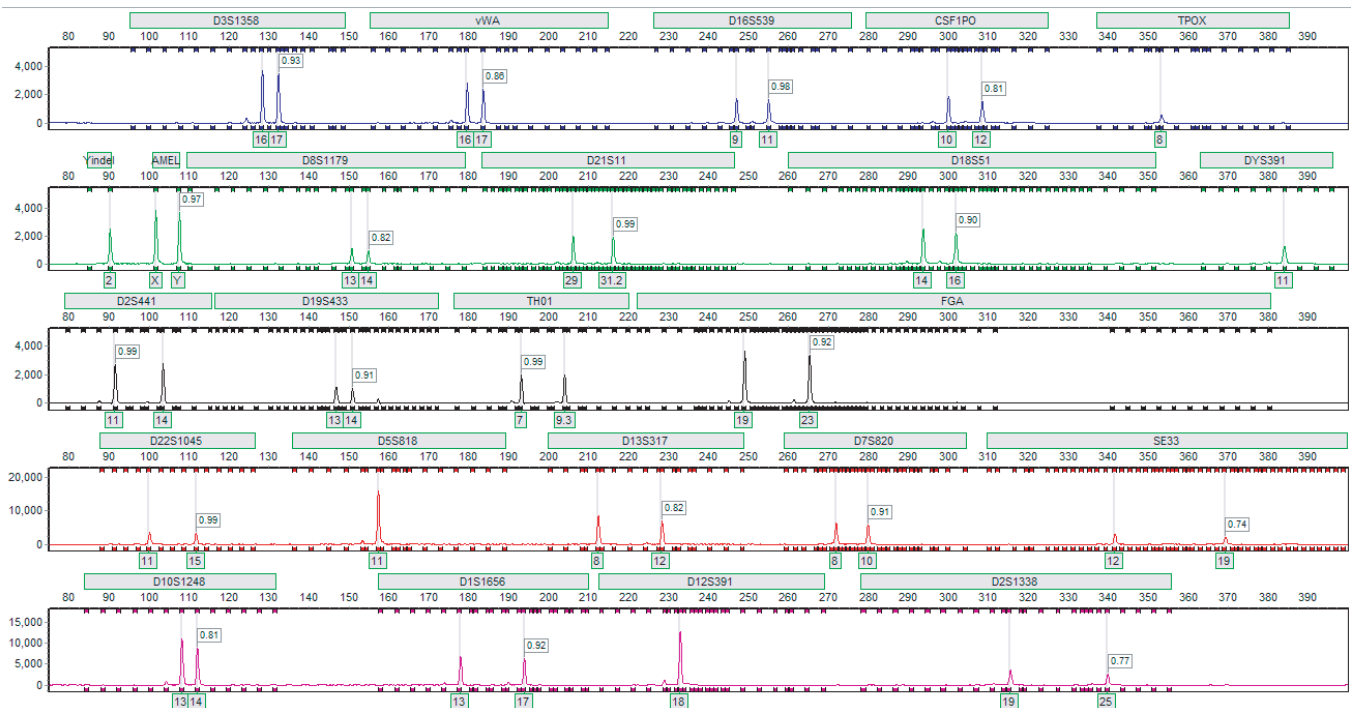


# No Variations in Profile Quality Between Aged and Fresh Samples

## A. Full DNA Profile from a One-Year Old Swab



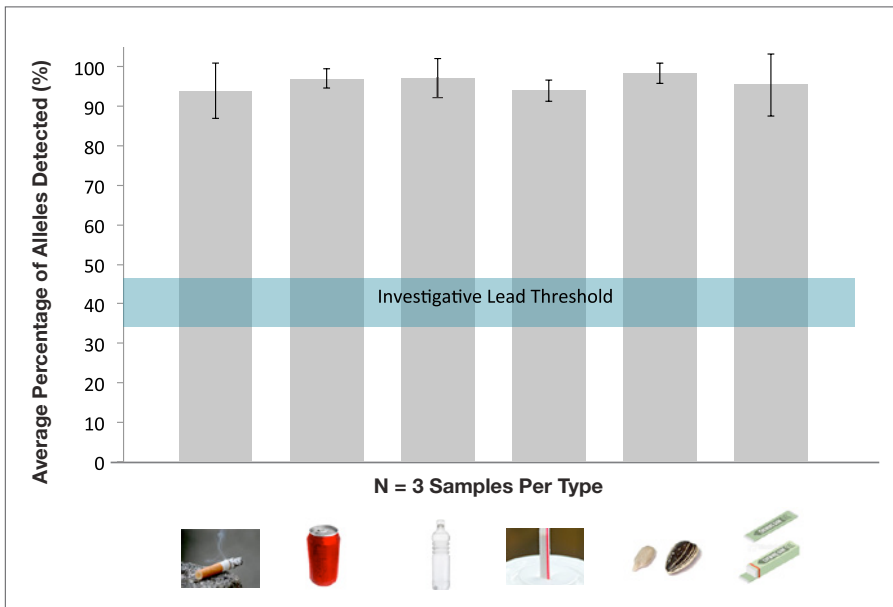
## B. Full DNA Profile from a Freshly Prepared Swab



Electropherograms of full DNA profiles generated from buccal swabs that had been (A) stored for one year and (B) freshly collected from the same donor.

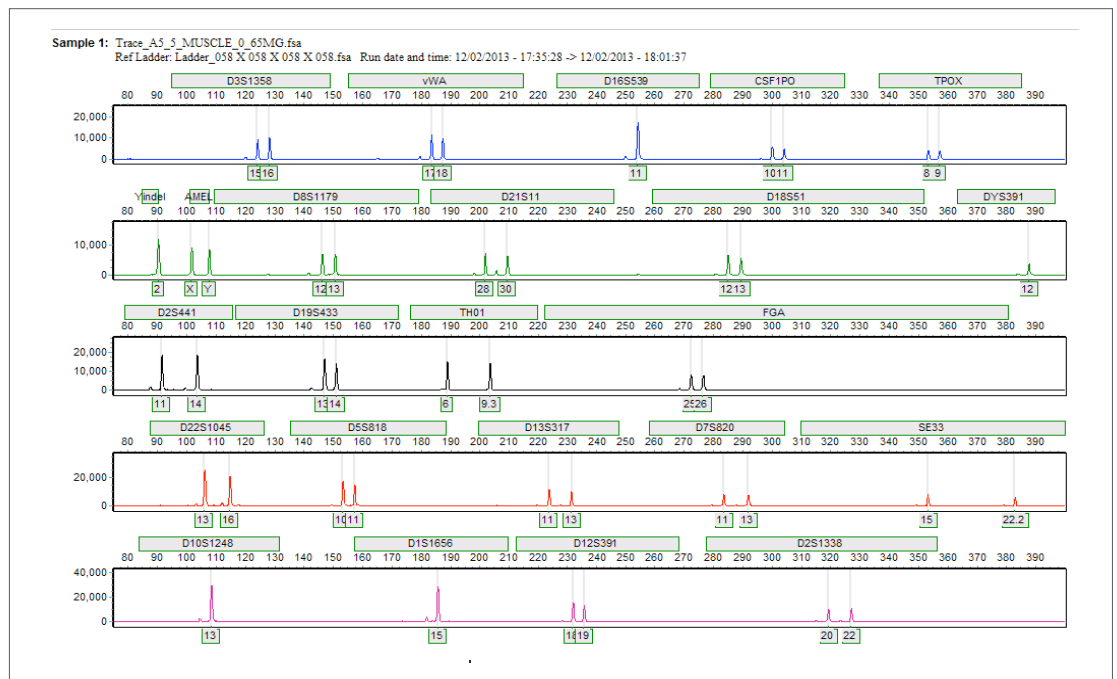
# High Quality Profiles in Under Two Hours

## Typical Results from Saliva-Based Samples



Percent of alleles detected with saliva-based sample types—cigarette, soda can, water bottle, drinking straw, sunflower seed husk, and chewing gum (N = 3).

## DNA Profiles with Tissue Samples



Electropherogram of full DNA profile generated from muscle tissue deposited onto a swab. Full profiles have also been obtained from other tissue types such as liver and lung.

## Full Concordance in the Presence of Inhibitors

**Table 1.** Full concordant profiles on the RapidHIT™ System in the presence of common inhibitors.

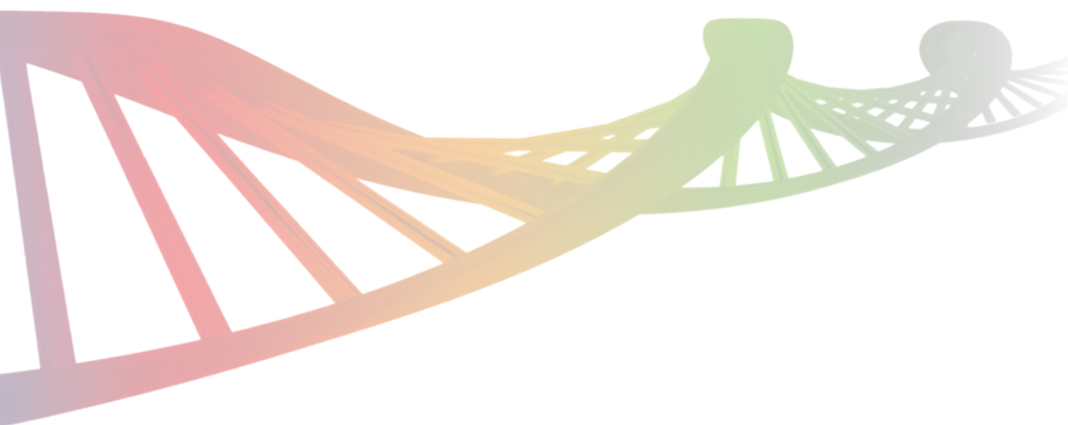
Inhibitor and Sample	Range Tested with Full Concordant Profiles
Hematin on swab	0 – 2 mM
Coffee on swab	0 – 100 µL
Chewing tobacco slurry on swab	0 – 100 µL
EDTA in STR premix	0 – 1 mM

### GlobalFiler™ Express Kit Specifications

Description	
Samples Per Run	Up to 8 samples
Sample Types	Buccal swabs, blood, and casework samples
Number of Loci	24 Loci 10 mini-STR Loci
Allelic Ladder	GlobalFiler™ Express Kit allelic ladder with 343 alleles
Hands-on Time	~3 minutes
Run time	Less than 2 hours
Storage	Refrigerated (4–10 °C) 6 months from date of manufacture <i>Sample and Buffer cartridges can be stored at room temperature up to 3 months.</i>

### NDIS-Approved RapidHIT™ GlobalFiler™ Express Kits

Catalog Number	Kit Description	Samples/Kit
400084RH	RapidHIT™ GlobalFiler™ Express 3-sample Cartridge Kit (4 pack)	12 samples
400086RH	RapidHIT™ GlobalFiler™ Express 7-sample Cartridge Kit (4 pack)	28 samples
400106RH	RapidHIT™ GlobalFiler™ Express 8-Sample Cartridge Kit (4 pack)	32 samples
400087RH	RapidHIT™ Blank Cartridge Kit (4 pack; 20 runs per cartridge)	80 runs



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