More DNA recovered. More alleles detected.

Introducing the new high-efficiency (HE) protocols for EZ2 Connect Fx

When forensic samples contain limited or degraded DNA, recovery during extraction matters. The new HE protocols for EZ2 Connect Fx are designed to increase DNA yield and support downstream STR analysis.

Built on the established magnetic-particle chemistry of the EZ1&2 DNA Investigator Kit, the HE protocols improve DNA recovery without changing the kit reagents or cartridge configuration.

Why choose the HE protocols?

- **Significant increase in DNA recovery:** Internal validation and multi-laboratory beta testing showed higher DNA yields across evaluated protocols.
- **Enhanced STR sensitivity:** STR analysis of diluted saliva samples showed more detected alleles with the Trace HE protocol.
- **Reliable contamination control:** Rigorous checkerboard testing demonstrated no detectable cross-contamination across the 24-well deck layout.
- **Seamless implementation:** No new kits or reagent modifications required. A simple protocol update enhances DNA recovery using your existing EZ2 Connect Fx instrument, with minimal changes to your established workflow.

Higher DNA recovery. Improved STR profiling. Same trusted chemistry.

Higher DNA yields with the new HE protocols support improved downstream STR performance, with increased allele recovery and reduced dropout in challenging samples. The protocols also retain the established extraction chemistry and cartridge configuration of the EZ1&2 DNA Investigator Kit.

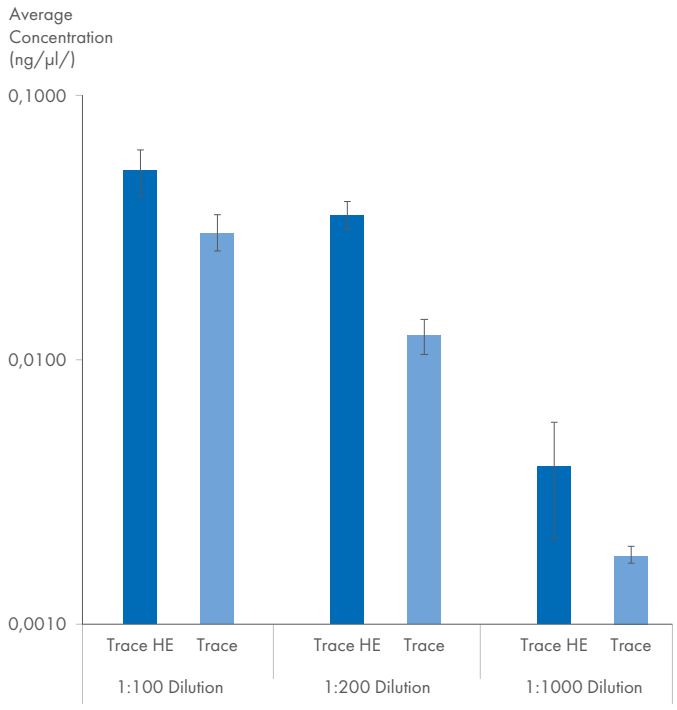


Figure 1. Dilution series of saliva DNA samples. Data compared average DNA concentration per sample group (n=6) processed with the new Trace HE and standard Investigator Trace protocol, analyzed with Investigator Quantiplex Pro.

Table 1. Improved allele recovery. Downstream STR analysis with Investigator 24plex QS correlates directly with the increased quantitative yields, resulting in enhanced allele recovery.

Sample	Trace		Trace HE	
	No. Alleles	Conc. (ng/ul)	No. Alleles	Conc. (ng/ul)
1:100	36	0,0276	36	0,0489
1:200	36	0,0145	36	0,0239
1:1000	22	0,0013	29	0,0016

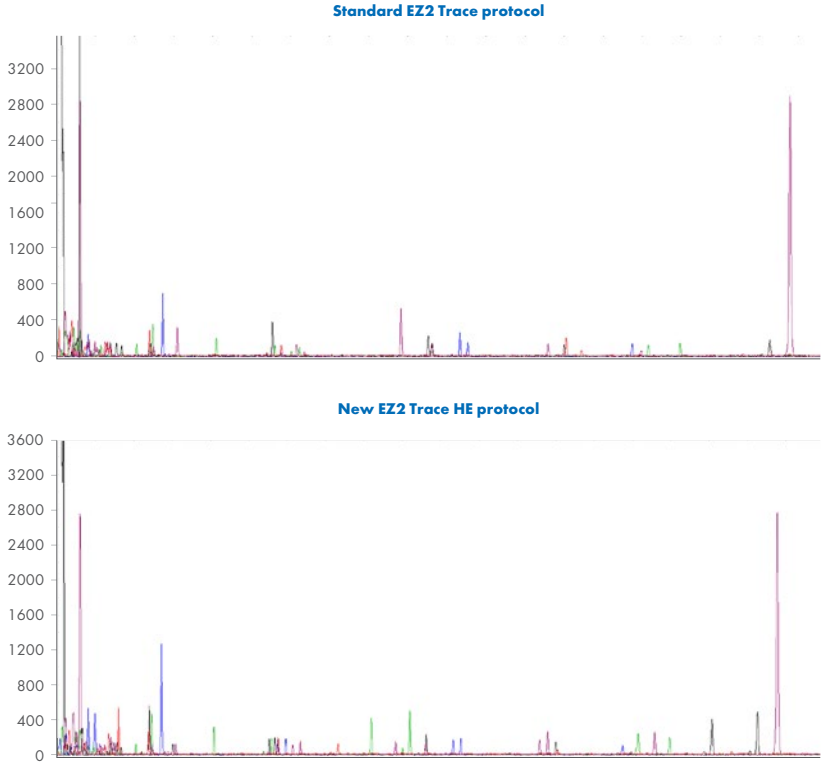


Figure 2. Combined electropherogram. Example Investigator 24plex QS profiles for 1:1000 saliva dilution when processed with the standard Investigator EZ2 Trace protocol (upper panel) or the new EZ2 Trace HE protocol (lower panel). The DNA profile for samples processed using the HE protocol variant display more alleles and allelic peaks of greater peak height. Number of alleles counted above 100 RFU.

Ordering Information

Product	Contents	Cat. No.
EZ1&2 DNA Investigator Kit	For 48 preps: Reagent Cartridges (DNA Investigator), Disposable Filter-Tips and Holders, Sample Tubes, Elution Tubes, Buffer G2, Proteinase K, Carrier RNA	952034
EZ2 Connect Fx System	Benchtop instrument for automated isolation of nucleic acids from up to 24 samples in parallel, using sealed prefilled cartridges	9003220

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