# EZ2 DNA Investigator Sep&Prep Kit



## Automated processing of sexual assault samples using EZ2® Connect Fx

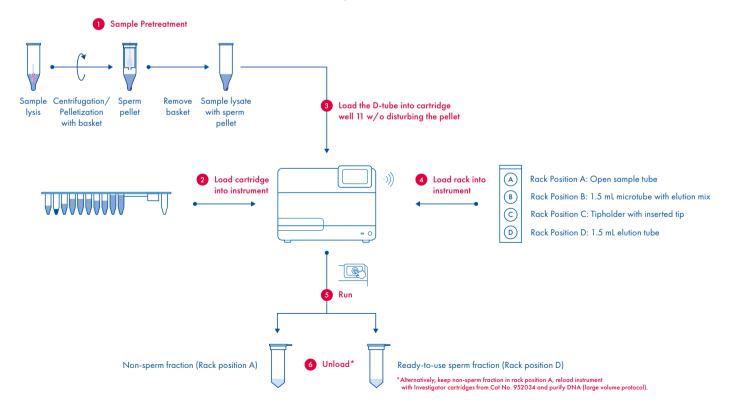
1 in 3 women experience physical or sexual violence in their lifetime<sup>1</sup>. This staggering reality places a growing burden on forensic laboratories, where traditional differential extraction methods are often limited by sample quality, or the number of samples submitted. In many cases, inefficient separation of sperm cells from the non-sperm cells – especially when female cells greatly outnumber male ones – compromises downstream DNA analysis.

Extensive manual steps such as multiple wash and centrifugation cycles further slow down the workflow and introduce risk of error.

Our new EZ2 DNA Investigator® Sep&Prep Kit streamlines the process with a fully automated solution. It enables separation of sperm cells from non-sperm cells and preparation of the sperm-derived DNA for direct use in downstream applications, such as qPCR, STR or NGS.

#### **Key features:**

- Automated sexual assault sample processing of 1–24 samples per EZ2 Connect Fx run
- Improved release of sperm cells from substrate
- High recovery of sperm-derived DNA with minimal female carryover
- Reduced hands-on time compared to other standard methods
- Sperm fractions ready for downstream analysis and compatible with commercial kits (qPCR, STR and NGS) – no further purification needed



#### Workflow overview

The EZ2 DNA Investigator Sep&Prep workflow significantly reduces hands-on time compared to other differential extraction methods. After sample lysis and centrifugation, all remaining steps are automated on EZ2 Connect Fx which

limits the manual interaction in sexual assault sample processing to less than 20 minutes, even for a full batch of 24 samples. This simplified and streamlined approach further reduces the risk of handling errors and user-to-user variability.

Table 1. Specifications of EZ2 DNA Investigator Sep&Prep Kit

eatures	EZ2 DNA Investigator Sep&Prep Kit		
Reactions per kit	48		
Sample Type	Sexual assault samples (e.g. post-coital swabs, vaginal or buccal swabs with semen, sperms mixed with different cell types, ejaculate on fabrics, etc.)		
Processing	Automated		
Compatibility	EZ2 Connect Fx		
Technology	Magnetic particles		
Sample volume	500 μL		
Elution Volumes	50 μL, 100 μL		
Time per run	ca. 70 min		
Output	Ready-to-use sperm-derived DNA, non-sperm fraction*		
Downstream analysis	qPCR, dPCR, STR, NGS		
* The non-sperm fraction can be stored or purified, e.g. with the EZ1&2 DNA Investigator Kit (48) on the same instrument.			

### Ordering Information

Product	Contents	Cat. no.
EZ2 DNA Investigator Sep&Prep Kit (48)	For 48 preps: Reagent Cartridges, Disposable Tip Holders, Disposable Filter-Tips, Sample Tubes, Elution Tubes, D-Tubes, Buffers and Reagents	952134
EZ1&2 DNA Investigator Kit (48)	For 48 preps (non-sperm fraction): Reagent Cartridges, Disposable Tip Holders, Disposable Filter-Tips, Sample Tubes, Elution Tubes, Buffers and Reagents	952034
EZ2 Connect Fx	Robotic instrument for automated purification of nucleic acids from up to 24 samples, 1-year warranty on parts and labor	9003220

EZ2 DNA Investigator Sep&Prep Kit meets ISO 18385 requirements.

(1) United Nations webpage: https://unstats.un.org/unsd/gender/chapter6/chapter6.html

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