ANDE®

Take control.
Get answers now!

- Accurate DNA analysis in less than 2 hours

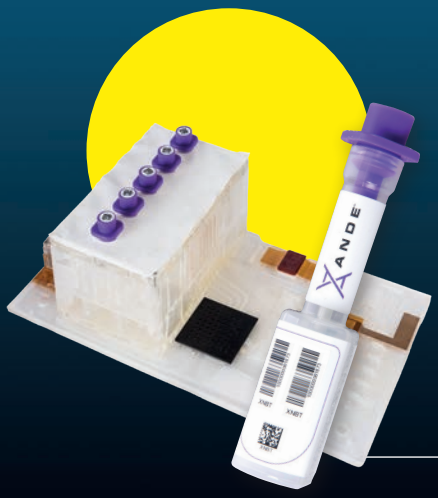
Proven and globally deployed

NDIS APPROVED FBI 2018

ULTRA | Forensic Technology

Rapid DNA Analysis™

The right answer, right on time



ANDE is a fully automated, ruggedized, rapid Short Tandem Repeat (STR) system with the integrated Expert System data analysis software.

The system generates human DNA IDs that are compatible with DNA databases around the world in less than 2 hours.

This automated system minimizes the analytical complexity and user manipulations required for field-forward biometric and forensic applications. ANDE is the first fully automated and integrated, field-deployable system that rapidly generates human DNA IDs without user manipulations after inserting a sample into the system.

A real game changer in the DNA industry

Take control of your DNA analysis

> Having that ability to take that evidence and turn it around in 90 minutes or less is an absolute game changer.

Sheriff Carmine Marceno
Lee County Florida

Rapid DNA processing anywhere

100% mobile, no infrastructure required, and the only ruggedized military spec instrument in the marketplace.

Ease of use with full control

No scientific expertise required, and field personnel can obtain answers immediately.

High-capacity DNA processing

Can run up to 5 samples simultaneously.

System components and consumables stable at room temperature

Refrigeration NOT required.

Demonstrated success with the most DNA sample types

"Battlefield tested" for difficult sample types: sexual assaults, degraded bone, and tissue that has been submerged.

Little to no yearly maintenance

Minimal down time and no technical assistance required.

ANDE Rapid DNA testing maintains genetic privacy

No racial characteristics
No medical characteristics
No physical characteristics
No disease susceptibility

Optimize your investigative intelligence

The ANDE® Rapid DNA system uses proven processes like a standard DNA lab. It is designed for use in the field by investigators and crime scene technicians.

Results for 5 samples at a time in less than 2 hours means that DNA can now play a crucial role in the early stages of your investigation, making your team more effective and efficient.

Samples that can be processed include:

- Guns and all types of firearm evidence
- Buccal swabs
- Bloodstains
- Cups, cans, and bottles
- Cigarette butts, gum, and drinking straws
- Steering wheels, cell phones, and handled items
- Hair
- Bones
- Semen
- Muscle and tissue

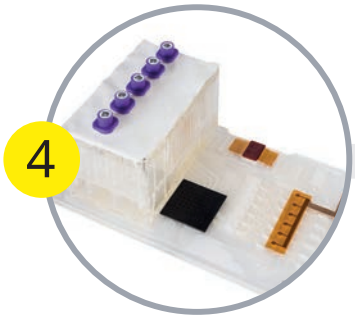
Easy to use

Rapid DNA is the generation of a DNA ID to identify an individual quickly (in less than 2 hours).
Many sectors of activity can benefit from this technology, such as law enforcement, natural disasters, kidnapping, and many more.

Collect the sample

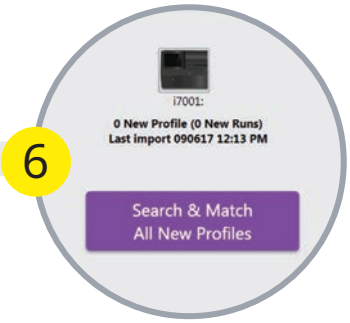
Scan the sample into ANDE

Insert the sample into the disposable chip

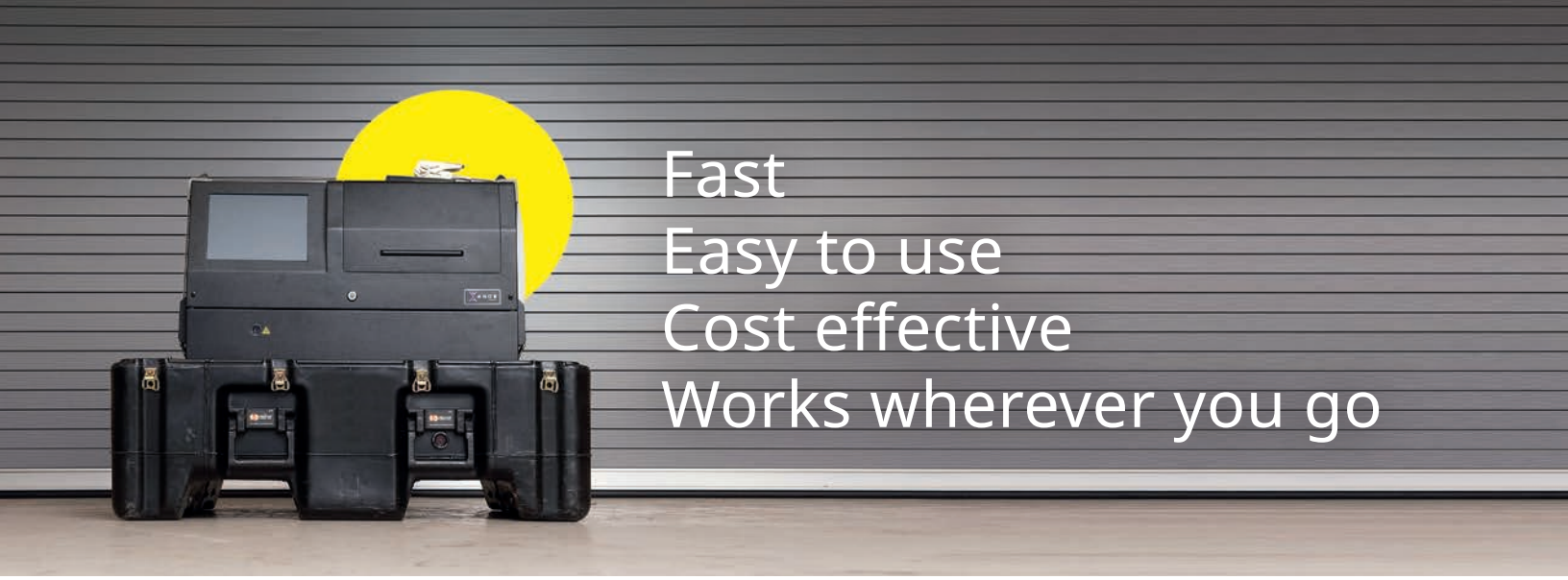


Insert up to 5 swabs at a time

Insert the chip into ANDE to start processing



Get actionable results in less than 2 hours



Fast
Easy to use
Cost effective
Works wherever you go

Rapid DNA will revolutionize the investigative process. ANDE will equip your team with tools to be more efficient and effective in breaking the cycle of crime.

Where can ANDE be deployed?

- Police stations
- Crime scenes
- Vans, trucks, and cars
- Booking stations
- Jails / prisons
- Coroners' and medical examiners' offices
- Hospitals and sexual assault kit collection centers
- Mass casualty sites
- Borders and ports
- Embassies
- Essentially anywhere (runs on generator power)

- **Focus your investigation**
- **Generate more leads**
- **Expand your investigative reach**

DNA Story

In the entertainment district of a major U.S. city, a couple stepped out of their hotel. Their plans were interrupted when an assailant confronted them. As the encounter escalated, the victim landed a punch on the forehead of his attacker causing blood to drip down the attacker's face, who hurried off in a rage. The encounter appeared to be over and the couple turned back toward the hotel, but the assailant returned with a pistol. He fired 10 rounds into the victim who had bloodied his face then disappeared into the night.

Law enforcement responded to the scene and collected a buccal swab from the victim and blood samples from his hand and clothing. The swabs were processed using the ANDE system and a DNA ID of the suspect was obtained from the blood on the victim's hands. Equipped with real-time results from ANDE, investigators prioritized the sample for the crime lab to provide confirming results and submission to CODIS.

ANDE's Global Use Cases

Crime Scene Casework

Sensitive-Site Exploitation

Sexual Assault

FBI Booking

Paternity Testing

Refugee Enrollment

Arrestee Enrollment

Officer Enrollment

Human Trafficking and Familial Confirmation

Human identification and Disaster and Mass Casualty Victim Identification

The Rapid DNA Act

In May of 2017, the United States Congress passed The Rapid DNA Act of 2017, giving an important endorsement to the use of Rapid DNA devices as tools for law enforcement to keep the public safe. The Act requires the FBI to issue standards and procedures regarding:

1. The use of Rapid DNA instruments to analyze DNA samples of criminal offenders;
2. The inclusion of data from DNA sample in the Combined DNA Index System (CODIS).

This historic bill received praise from both sides of the aisle and was passed unanimously.

System Specifications

ANDE™ 6C Instrument

Dimensions	75 x 45 x 60 cm (29.5 x 17.6 x 23.6 in
Weight	54kg (117 lbs)
Operating Conditions	10°C to 40°C (50°F to 104°F) 20% to 80% relative humidity, non-condensing
Altitude	Up to 3,048 m (10,000 ft) via configuration
Power	100 to 240 VAC +/-10%, (50 or 60Hz) line power; < 5 A peak load at 120 VAC (60Hz) line power, < 3 A peak load at 230 VAC (50 Hz) line power, Generator: Sine wave AC power only, as rated above
Ruggedization	U.S. Military Standard 810G for vibration and shock during transportation
External Connections	USB 2.0, GPS (USB 2.0, L1 frequency reception; sensitivity > -150dBm) / Wi-Fi 802.11 hardware included for future use / Ethernet (RJ45 10/100/1000 megabit data rates) / SVGA / DVI
Data Security	Password Protected, 3 levels of user access, FIPS-140-2 encryption of data
Sample Security	Samples irreversibly locked into Chip
Sample Tracking	Integrated barcode scanner and RFID reader
Internal Memory	5000 runs (standard configuration); additional storage available on request
Manual Calibration & Alignment	No manual calibration or optical alignment is required
Resolution	Single base resolution within a locus across the size range from 80 to greater than 500 bases
Data Output Files	.png, .xml, .fsa, and allele table (.csv) formats

STR Assay

FlexPlex® 27	D1S1656, D2S1338, D2S441, D3S1358, D5S818, D6S1043, D7S820, D8S1179, D10S1248, D12S391, D13S317, D16S539, D18S51, D19S433, D21S11, D22S1045, FGA, CSF1PO, Penta E, TH01, vWA, TPOX, SE33, DYS391, DYS576, DYS570, a nd Amelogenin

A-Chip™

STR Assay	FlexPlex® containing 23 autosomal loci, 3 Y loci, and amelogenin
Sample Types	Buccal
Sample Capacity	Up to 5 samples
Process Time	94 min
Controls	Allelic Ladder and Internal Lane Standard
Storage	Room temperature: 5°C to 25°C (41°F to 77°F)
Stability	Six (6) month stability
Ruggedization	U.S. Military Standard 810G for vibration and shock during transportation

I-Chip™

STR Assay	FlexPlex® containing 23 autosomal loci, 3 Y loci, and amelogenin
Sample Types	Includes blood, tissue, bone, and crime scene samples
Sample Capacity	Up to 4 samples
Process Time	106 min
Controls	Allelic Ladder and Internal Lane Standard
Storage	Room temperature: 5°C to 25°C (41°F to 77°F)
Stability	Six (6) month stability
Ruggedization	U.S. Military Standard 810G for vibration and shock during transportation

Software

ANDE Expert System	Raw data processing, allele assignment, and interpretation of DNA IDs
ANDE FAIRS™ Software	Data security, DNA ID repository, data viewing, and search

Innovating today for a safer tomorrow

ULTRA | Forensic Technology

ANDE

Follow us

www.ultra-forensictechnology.com

MKT81-00060 v1.0