



Rapid DNA Pilot Program & Frequently Asked Questions

WSP Crime Lab Division
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What is Rapid DNA?

Rapid DNA is a fully automated (hands free) process of developing a Combined DNA Index System (CODIS) Core Loci STR profile from a known reference sample. This “swab in – profile out” process consists of automated testing and analysis procedures without human intervention, and can be completed in as little as 90 minutes.

What is the Rapid DNA Act of 2017?

This federal law amends the DNA Identification Act of 1994 and allows profiles generated by an FBI-approved Rapid DNA instrument to be entered into CODIS if used in compliance with the standards and procedures issued by the Director of the FBI. Currently, it is only approved for casework reference samples processed at an accredited laboratory, or at FBI-approved booking stations for arrestee samples.

Does WSP use Rapid DNA?

In 2021, the state legislature provided funding for WSP to implement a Rapid DNA Pilot Program. A phased approach to integrate this developing technology into laboratory operations will be used, with only fully qualified WSP forensic DNA scientists operating the instruments and evaluating resulting DNA profiles. Work is currently underway to procure instrumentation and supplies.

Phase 1: Sample types already approved by the FBI will be validated in the laboratory. This includes known reference samples (oral swabs, blood), such as those from convicted offenders, suspects, or relatives of a missing person, as well as other single-source samples like unidentified human remains (bone, teeth, tissue).

Phase 2: Crime scene samples with the use of a mirrored copy of the state CODIS database containing offender samples will be investigated. This phase is contingent on how Rapid DNA technology and regulations develop in the coming years. Further research by the manufacturers and FBI is ongoing.

You can find more detailed information about the project in the [Rapid DNA Pilot Program Plan](#).

Can a Rapid DNA instrument be used to develop DNA profiles from crime scene samples for CODIS search or upload?

No, profiles developed from crime scene samples using Rapid DNA are not currently eligible for CODIS search or upload.

Can a local law enforcement agency build its own DNA database of Rapid DNA profiles, or use CODIS with their Rapid DNA-generated profiles?

No. [RCW 43.43.758](#) requires any local DNA database to be fully compatible with the state system (i.e. CODIS). WSP is prohibited from providing access to and/or releasing DNA records and PII to any non-NDIS approved entities, so WSP must maintain the control of WA CODIS and any resulting DNA data (including any mirror databases) to remain in good standing with the FBI. The FBI does allow booking stations to use Rapid DNA instruments with CODIS for arrestee samples. However, Washington State does not currently have an arrestee DNA collection law, so this functionality is not currently applicable.

If you have any questions or your agency is considering using Rapid DNA instrumentation, please contact your local WSP crime laboratory.

My agency is thinking about buying Rapid DNA instrumentation. What are some additional points we should consider?

Maturity of technology: Rapid DNA is currently in its infancy and work is ongoing to develop the technology so that it is robust enough to process difficult crime scene samples that include mixtures. Current instrumentation is best used for single-source samples.

Cost: The agency should consider the cost of both the instrumentation and supplies. A preventive maintenance plan is also recommended.

Personnel: The agency should consider additional personnel to implement and maintain a Rapid DNA program. In particular, IT personnel and staff with expertise to interpret DNA profiles that have quality issues (known as Modified Rapid DNA) would be needed.

Sampling: A double swab strategy should be utilized— one swab for Rapid DNA and another swab for conventional testing by the crime laboratory for CODIS and court. Policies for evidence consumption and types of samples that may be processed would need to be developed.

Throughput: Current Rapid DNA instruments only process 1—5 samples at a time.

The FBI provides additional guidance for [Non-CODIS Rapid DNA Considerations and Best Practices for Law Enforcement Use](#).

Need DNA Results Fast?

For cases that involve an imminent threat to public safety or otherwise require results on a rush basis, please contact your local WSP lab to discuss expedited lab testing using our validated lab procedures.