



St. Louis County Police Crime Laboratory

DNA-Biology Evidence Submission

Investigator Reference Sheet

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The Biology/DNA Submission form is required for all evidence being submitted to the Laboratory for DNA testing.

Downloading the Biology/DNA submission form (*located on the laboratory website, Evidence Submissions page*):

➤ To complete the form, you must have an Adobe reader program (e.g. Adobe Reader DC) installed on the device being used to complete the form. This program can be downloaded for free on Adobe's website:

<https://get.adobe.com/reader/>.

➤ Download the form and save to your computer. *Note: the form will not properly load in a web browser. You must click the download button from the browser and save the form to your computer:*



➤ Double-click on the saved pdf form to open it. *Note: If the form attempts to open in an internet browser, open Adobe Reader DC, and then open the form from Adobe.*

Completing the Biology/DNA submission form:

➤ Enter all **case information and investigator/PA information** in the first section.

➤ List all **individuals** in the case and their role in the case. This information is used to determine if DNA reference standards are needed for comparison or elimination purposes. Click the "Add Individual" button to add a row for each individual.

➤ **Serial/related cases:** If the crime is serial in nature or there are other cases believed to be associated to the case being submitted, select "Yes" in the Serial/Related cases section. This will open a new section to enter related case information.

➤ **Add Evidence:** Click the button for the corresponding offense to open the evidence entry pages. Enter information on **all items** being submitted for DNA testing. In general, each item will have a separate row. If multiple swabs are taken from the same item AND have the same purpose for testing, they may be grouped on one line:

- **Crimes against persons (non-sexual assaults) and Property Crimes** – Enter the Agency item number and evidence description for all items. Select the appropriate option in the *Evidence collected from* picklist (hover the cursor over the option to see the complete text). Next, enter the address (or vehicle) the item was seized from and select the purpose of DNA testing for each item. Lastly, provide a detailed synopsis of the case information, including how each item of evidence is believed to be associated to the crime.
- **Sex Crimes** – In addition to the Agency item# and evidence description, complete the *Evidence Type* and *Collected From* picklists. If the selections in the picklist are not appropriate, select the "Other" option and provide this information in the synopsis box. For sexual assault kits, enter the SAFETrack barcode number. Lastly, enter information on recent consensual sex partners and complete the case synopsis.
- **Weapons Offenses/UUW/Possession** – These cases require a reference standard from the suspect and anyone who has routine contact with the firearm. Contact Bio/DNA section management for approval prior to submission. Retain the swabs of the firearm until approval for DNA testing is obtained.
- **Reference standards only (no evidence to submit, or evidence previously submitted)** – Clicking this button will display the *Print* and *Email* buttons. The preferred method for submitting the form is to email the form to LabBioDNASTaff@stlouiscountymo.gov (clicking the Email button will automatically attach the completed form to an email template). Click send on the email to submit the form.

Below is a summary of the picklist options and a brief description of which is most appropriate for a given item of evidence -



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Evidence item collected from:	Definition	Examples (not all-inclusive):
crime scene-business	select this option when the evidence item was recovered from a crime scene that occurred at a business	Business burglary where apparent blood was located in the business. Swabs of the blood are being submitted for DNA testing
crime scene-residence	select this option when the evidence item was recovered from a crime scene that occurred in or at a private residence	Burglary of a home where apparent blood was located in the home. The evidence description should include specific information on where the blood was located. For example: apparent blood from broken window believed to be the point of entry (POE).
crime scene-street/driveway/Other	select this option when the evidence item was recovered from a crime scene that occurred in the street, driveway, or other area (crime did not occur in a residence, business, or a vehicle).	Robbery where victim was attacked walking down the street.
crime scene-vehicle where crime occurred	select this option when the evidence item was recovered from a vehicle where the crime occurred	Homicide where victim is murdered in the vehicle.
recovered from elimination/witness	select this option when the evidence item was recovered from a witness or other elimination individual. In some cases, a witness or other individual may locate evidence in the crime, such as a firearm or other item believed to be associated to the crime	If the witness handled the item, a reference standard should be submitted to eliminate them as the source of any DNA that may be recovered.
recovered from suspect	select this option when the evidence item was recovered directly from the suspect	Common examples include items being worn by the suspect (hat, gloves etc.) or items in the suspect's clothing (pockets etc.). Items taken directly from the suspect are NOT CODIS eligible. If comparisons are requested, a reference standard from the suspect must be submitted.
recovered from victim	select this option when the evidence item was recovered directly from the victim	Examples include items provided by the victim such as clothing worn at the time of the crime, or other such evidence that is not collected as part of a sexual assault kit or autopsy (use the medical examiner option).



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search of suspect's belongings/vehicle/residence	select this option when the evidence item was recovered from the suspect's belongings but not directly removed from the suspect (clothing/backpack not being worn by suspect), suspect's vehicle (or vehicle commonly used by suspect), suspect's residence (or residence where suspect frequently stays).	Items recovered from the suspect's belongings/vehicle/residence are NOT CODIS eligible. If comparisons are requested, a reference standard from the suspect must be submitted.
vehicle-abandoned	select this option when the evidence item was recovered from a vehicle that was recovered with no occupants or when occupants fled the scene and were not located	Recovered stolen vehicle, carjacking vehicle recovered, other vehicle associated with the crime that was <u>unoccupied</u> at the time it was recovered.
vehicle-occupied by suspect(s)	select this option when the evidence item was recovered from a vehicle that was recovered with suspect(s) occupying the vehicle or when occupants were arrested shortly after fleeing the scene	Recovered stolen vehicle, carjacking vehicle recovered, other vehicle associated with the crime that was occupied by suspects at the time it was recovered.
Medical Examiner	select this option when the evidence item was recovered from autopsy	May include swabs from the deceased, clothing worn etc.
vehicle-used to transport victim	(Crimes against persons evidence page) select this option when the evidence item was recovered from a vehicle that is not involved in the crime itself, but may have been used after the crime	This may include a vehicle used to transport a victim to the hospital, a vehicle used to dispose of a body, etc.
police vehicle-used to transport suspect	(Weapons/UUW/Possession evidence page) select this option when the evidence item was recovered from a vehicle that is not involved in the crime itself, but was used to transport the suspect	In some cases, a suspect may hide a weapon or other object in a police vehicle while being transported. The item is later recovered and investigators wish to identify whom the item belongs to. This type of evidence is not CODIS eligible and will require a reference standard from the suspect for comparison purposes.



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Purpose of DNA testing for item:	Definition	Examples (not all-inclusive):
Left by suspect	select this option when the evidence item was believed to have been brought to the scene and left by the suspect	Common examples include clothing items (hat, mask, gloves), tools or other items left behind during a burglary, robbery or other crime.
Handled/used by suspect	select this option when the evidence item was already present at the crime scene but was handled or used by the suspect	Common examples include victim property handled by the suspect, door handles, swabs from a recovered stolen vehicle etc. With this type of evidence, it is reasonable to expect victim/owner DNA to be present on the items prior to the crime. Whenever possible, collect reference standards from individuals whose DNA is likely to be present on the DNA evidence.
Weapon used in commission of crime	select this option when the evidence item was used to commit the crime. It may have been brought to the scene by the suspect or may have already been present	common examples include knife/firearm or other object used to harm victim, ligature, vehicle (if vehicle used to hit the victim), etc.
Possible victim DNA on suspect item	select this option when the evidence item is recovered from the suspect (or suspect's belongings/vehicle/residence) and recovery of victim DNA is relevant or informative to the case	common examples include suspect clothing in an assault/robbery/homicide case, a sexual assault kit collected from the suspect (i.e. locate victim DNA on penile swabs), suspect vehicle used to abduct/transport a victim etc.
Possible suspect DNA on victim item	select this option when the evidence item is recovered from the victim (or victim's belongings/vehicle/residence) and recovery of suspect DNA is relevant or informative to the case	common examples include victim clothing in an assault/robbery/homicide case, a sexual assault kit collected from the victim etc.
Possible victim DNA on crime scene item	select this option when the presence of the victim's DNA at the crime scene is of relevance. It may be necessary to establish that the area in question is where the crime occurred.	In some cases, locating victim DNA in a specific location will associate the victim to the crime scene (or to determine if the area is the crime scene). For example, locating victim DNA along a route possibly taken by the suspect in an abduction/missing person case.
Possible victim and suspect DNA on crime scene item	select this option when the presence of both the victim and suspect's DNA at the crime scene is of relevance. It may be necessary to establish that the area in question is where the crime occurred.	For example, a condom recovered from a location described by the victim following a sexual assault. In this case, DNA is used to associate both the victim and suspect to an item used in the commission of a crime.



Seizing Biology/DNA Evidence:

Avoiding contamination:

- Use universal precaution. Treat all evidence as if it is contaminated with bloodborne pathogens such as hepatitis and HIV.
- Always wear gloves, change them frequently and always between items. Avoid handling items to be swabbed for touch/trace DNA. Once gloved, do not touch personal items (e.g. your phone) or your face, clothing etc.
- Wear a face covering and do not talk, cough, or sneeze over evidence.
- Disposable fingerprint brushes are recommended if the area will be subsequently swabbed for touch DNA.

Collection Procedures for Biology/DNA Evidence:

- Touch/trace DNA – Swab using a moistened swab (a few drops, not saturated) followed by a dry swab. Use a rolling motion to cover the entire swab head (~1/2 of each swab is taken for DNA analysis). Refer to the [Touch DNA Collection and Preservation](#) document on the Laboratory website for additional information.
- Dried stains/body fluids – collect using moistened swabs to absorb the stain. A dry swab may be used if visible stain remains following the wet swabbing. Typically 2 swabs are utilized.
- Wet body fluids – collect using dry swabs. The number of swabs used will depend on the size of the stain. Typically 2 swabs are utilized, however up to 4 may be used for large stains. Swabs from the same stain should be packaged together.
- Reference standards – Buccal swabs should be collected 30 minutes after the individual has ceased eating, drinking, smoking, or chewing gum. Refer to the [Procedure for Buccal Swab Standard Collection](#) document on the laboratory website.

Storage of Biological Evidence (list is not all-inclusive, contact laboratory with questions):

- **Frozen** – Urine samples (toxicology), feces, tissue samples (including fetal remains), food, and wet/bloody evidence that cannot be dried prior to submission (and no facility for refrigeration).
- **Refrigerate** – sexual assault kits and whole blood tubes (including blood for toxicology), wet/bloody evidence that cannot be dried prior to submission.
- **Room Temperature** – Dried evidence items such as swabs, reference standards (buccal swabs), and other bulk evidence items that are not perishable.

Refer to the [Biological Evidence Preservation Handbook](#) for additional information on both short-term and long-term storage recommendations.

Refer to the [DNA Submission Guidelines](#) on the Laboratory website for additional information on evidence acceptance policies.

How to obtain copies of Laboratory reports (email and Portal options):

Email:

- Email notifications are automatically sent to the investigating officer indicated on the submission paperwork when a report or CODIS notification is released. SLCPD reports are attached to the notification email.
- For non-SLCPD agencies, the notification email is password protected. Once a password is set-up, this password is used to access the report by clicking on the secure link in the email. The email link is valid for a limited time.



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Online Report Access - Portal:

- Portal is the St. Louis County Crime Laboratory's web-based Lab Reporting System. Portal is used by Laboratory customer agencies to check current case status and view/print final reports.
- Portal is restricted to St. Louis County Crime Laboratory customer agencies. Your agency must be on the County/REJIS Backbone to access Portal. Email CrimeLab@stlouiscountymo.gov to request access.

Please ensure the Point of Contact information (email address) for your agency is updated with the most current individual (or group email address).

- Updates to **agency Point of Contact** information should be sent to CrimeLab@stlouiscountymo.gov.
- Updates to the **case investigator** for Biology/DNA analysis requests should be sent to: LabBioDNAStaff@stlouiscountymo.gov.

Limitations of Biological (Screening and DNA) Examinations and Testing

1. The STR DNA results cannot answer when or under what circumstances an individual may have used or touched an item of evidence. The presence of an individual's DNA on an item does NOT prove that they were in possession of the item. The DNA results must be taken into consideration with other information in the case by the trier of fact (jury/judge) to determine the most likely circumstance for how and when DNA was deposited on crime scene items. This is not the role of DNA analysts.
2. STR DNA profiles are the same throughout the body, regardless of what body fluid they originate from. DNA results will not indicate what body fluid the DNA profile came from. Screening tests may provide information on the most probable fluid; however, the biological source of DNA (e.g. skin, blood, saliva) cannot be definitively determined.
3. The age of dried blood, seminal stains, or possible saliva stains cannot be determined.
4. Very old or highly degraded DNA samples may yield results, may give an incomplete DNA profile, or may not yield results.

Weapons/UUW/Felon in Possession cases:

1. Possession offenses (weapons/drugs) including UUWs are not to be submitted unless approved by the Biology/DNA Supervisor and meet the requirements noted in section 2 below.
2. When an item is removed from an individual (to include from their vehicle or residence), it is reasonable/expected that their DNA would be present on the item. These items are prohibited from CODIS entry or searching. Only direct comparisons with a suspect reference standard can be performed with approval. **The following requirements must be met for approval:**
 - a. Only swabs of the firearms evidence will be accepted. Effective October 1st, 2022 the laboratory no longer swabs firearms evidence for DNA testing.
 - b. Submission of a reference standard from the suspect must accompany the firearm swabbing submission. Refer to the Laboratory website for instructions on collecting buccal swabs.



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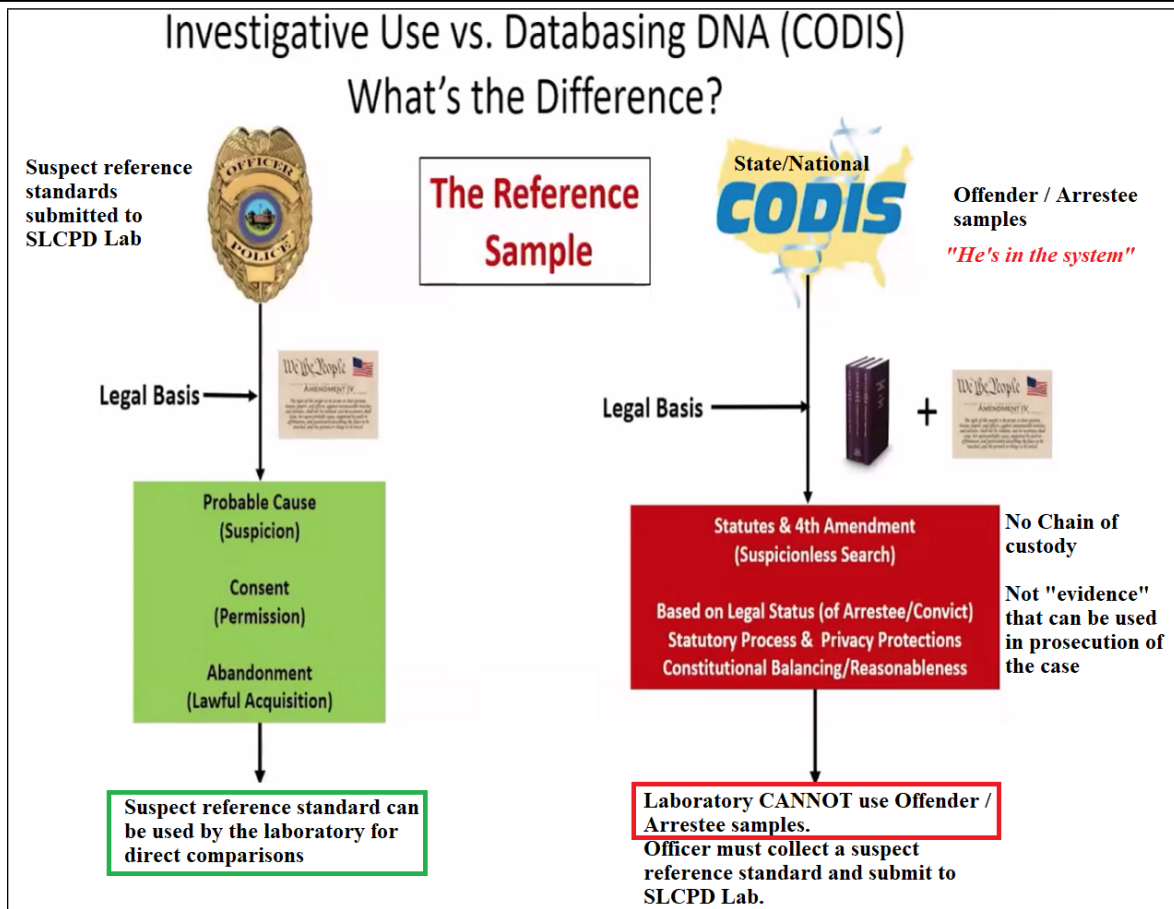
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- c. Request from a Prosecutor and approval from Biology/DNA management.
 - d. **DNA testing will not be performed following processing by the Firearms section due to contamination potential.**
3. The laboratory has a designated area at evidence reception where firearms evidence can be swabbed. The swabs will be retained by the agency until the case is approved by the Biology/DNA supervisor. Tutorial videos are available for reference:
- a. Handgun swabbing tutorial: <https://youtu.be/5U6X0oyzFO4>
 - b. Long gun swabbing tutorial: <https://youtu.be/dFY44ubUOZ8>

CODIS Database Specifics

1. Federal law (DNA identification Act of 1994) dictates what is allowed in the CODIS database. The database is administered by the FBI and the laboratory is routinely audited to ensure compliance with FBI standards and requirements. There are three levels of CODIS: local, state, national (SLCPD is a local CODIS lab). The higher the level, the more restrictive the rules on what samples qualify.
 - a. DNA profile must be from crime scene evidence, associated with the crime and not attributable to a victim or witness in the crime. Reference standards from all individuals involved in a crime are necessary to eliminate them as donors to the crime scene evidence.
 - b. Secondary reference standards are not allowed to be entered into CODIS as evidence – DNA from an item removed directly from the person, their vehicle, or their residence are considered secondary reference standards since their DNA is likely to be present irrespective to the crime.
 - c. For sexual assault cases, a reference standard must be obtained from the victim prior to DNA analysis (usually collected as part of the sexual assault kit). If the suspect is known, submit a standard for the suspect. Submit an elimination standard from consensual sex partner(s) if consensual sex occurred within the last 72 hours (prior to the crime).
2. “His DNA is in CODIS already...why is the lab asking for another buccal swab?” Although legally required individuals may have their DNA profile in the state or national CODIS database for matching purposes, **these samples are not treated as evidence and are not admissible in court.** MO convicted offender and arrestee samples reside at the Missouri State Highway Patrol Crime Laboratory. We do not have access to these samples. Even if a CODIS match occurs, **a suspect reference standard must be submitted to the St. Louis County Police Crime Laboratory for direct comparison and court admissibility purposes.**



3. There is no need to request a sample or individual to be searched in CODIS. Evidence samples entered into CODIS search on a daily basis. If the report indicates a profile was entered, it will continue to search daily. If the sample is removed from the CODIS database, the laboratory will notify the investigator.

4. Refer to the Biology/DNA section page on the Laboratory website for more information:
<https://www.stlouiscountypolice.com/who-we-are/crime-laboratory/biologydna-unit1/>