

FORENSIC BIOLOGY PROTOCOLS FOR FORENSIC STR ANALYSIS

Differential Extraction from Semen Stains or Swabs utilizing the QIAcube and EZ1

Status: Published

Document ID: 1144

DATE EFFECTIVE
12/30/2025

APPROVED BY
Nuclear DNA Technical Leader

PAGE
1 OF 15

Differential Extraction from Semen Stains or Swabs utilizing the QIAcube and EZ1

Sample size for the extraction should be approximately 1/3 of a swab or a 3x3 mm cutting of a stain. This extraction is applicable for casework samples suspected of containing semen.

1 Tube setup

1.1 Refer to BEAST Manual: [Evidence/Sample/Bulk Container Transfers, Bulk Container Creation, Custody Check](#), Section 2.6.1.3 for Autodiff cuttings transfer procedure.

1.2 Add the samples in the cryobox to the batch in LIMS.

1.3 Add your name in the 'Operator' box on the top right corner of the worksheet.

1.4 Obtain two 1.5 mL Eppendorf tubes for your extraction negatives, and label them with the associated LIMS labels.

1.5 Retrieve reagents for epithelial cell digestion and record the lot numbers in LIMS. The Mixture Information table contains the reagent amounts for the master mix. Click Recalculate if you updated the number of samples on the worksheet and need to recalculate the amount. Use the volumes listed in the "Total Quantity" column to prepare the master mix (LIMS will calculate 1.2x the number of samples). The amount of each reagent for one sample is listed below.

Epithelial Cell Digestion master mix (per sample)		
Diluted ATL (μ l)	Proteinase K (Qiagen) (μ l)	Total
480	20	500

1.6 Add 500 μ l master mix to each of the samples and negative controls.

1.7 Incubate at 56°C for 1.5 hours (and no longer than 1.75 hours) at 900rpm in a thermomixer. Record the thermomixer temperature and add the instrument in the 'Additional Information' section. Add the instrument to the 'Instrument' box at the top of the worksheet..

1.8 Fill out the Incubation Run By review.

NOTE: The "epithelial cell" fraction will be denoted as F1 and the "sperm cell" fraction will be denoted as F2

1.9 Prepare your sample tubes:

FORENSIC BIOLOGY PROTOCOLS FOR FORENSIC STR ANALYSIS

Differential Extraction from Semen Stains or Swabs utilizing the QIAcube and EZ1

Status: Published

Document ID: 1144

DATE EFFECTIVE 12/30/2025	APPROVED BY Nuclear DNA Technical Leader	PAGE 2 OF 15
------------------------------	---	-----------------

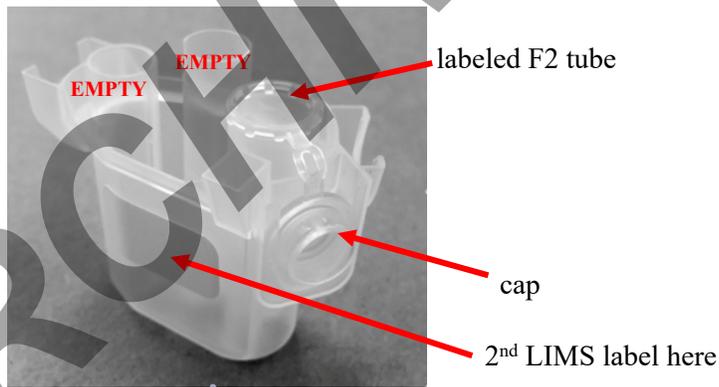
1.9.1 Print your labels. For the entire protocol you will need:

- Three copies of the **F1** sample labels
- Three copies of the **F2** sample labels

1.9.2 Obtain your tubes and label them:

- Spin baskets and 1.5 mL collection tubes – **F1** sample labels
- Rotor adapters – **F2** labels
- 1.5 mL Qiagen snap cap tubes – **F2** labels
- 2.0 mL Qiagen screw cap tubes – **F1** labels (place the label below the ridges on the side of the tube)

1.9.3 The 1.5 mL Qiagen snap cap tubes with the F2 labels will go inside of the rotor adapters. Bend the cap of each tube back and insert it into the cap holder in position L3 (see diagram below).



Rotor

2 QIAcube setup and Sample Preparation:

- 2.1 Add the QIAcube instrument to the 'Instrument' box at the top of the worksheet. Fill out the Separation and Lysis response in the Extracted Run By review.
- 2.2 Check that the waste drawer is empty, and the liner is clean (can be wiped with 70% ethanol if needed).
- 2.3 Fill both tip racks with Disposable Filter-Tips, 1000ul, wide bore.
- 2.4 Retrieve reagents for the sperm lysis buffer and record lot numbers in LIMS. Prepare buffer in a 2 mL screw cap tube – see the table below for minimum volumes required for this protocol:

NOTE: G2 buffer_AutoDiff reagent comes in 2 sizes: 11mL and 260mL bottles. Either size may be used for the sperm lysis buffer and the 30mL reagent bottle as described below.

Controlled versions of Department of Forensic Biology Manuals only exist in the Forensic Biology Qualtrax software. All printed versions are non-controlled copies.

© NYC OFFICE OF CHIEF MEDICAL EXAMINER

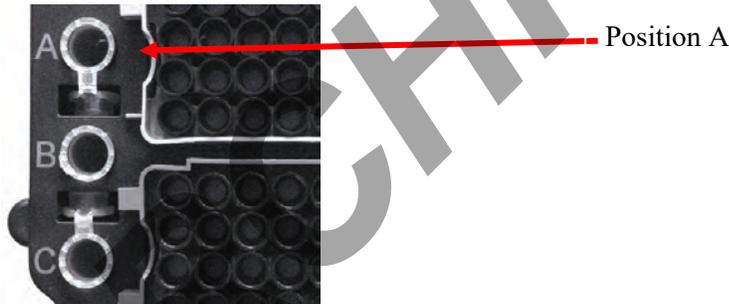
Qualtrax template 040621

FORENSIC BIOLOGY PROTOCOLS FOR FORENSIC STR ANALYSIS

Differential Extraction from Semen Stains or Swabs utilizing the QIAcube and EZ1		
Status: Published		Document ID: 1144
DATE EFFECTIVE 12/30/2025	APPROVED BY Nuclear DNA Technical Leader	PAGE 3 OF 15

Sperm Lysis Buffer reagents			
# samples	G2 buffer_AutoDiff (μL)	Qiagen ProK (μL)	1M DTT (μL)
3	398	27	106
4	506	34	135
5	623	42	166
6	750	50	200
7	863	58	230
8	975	65	260
9	1106	74	295
10	1219	81	325
(11 or) 12	1470	98	392

2.5 Once the sperm lysis buffer is prepared, seat the tube on the QIAcube worktable in Position A.



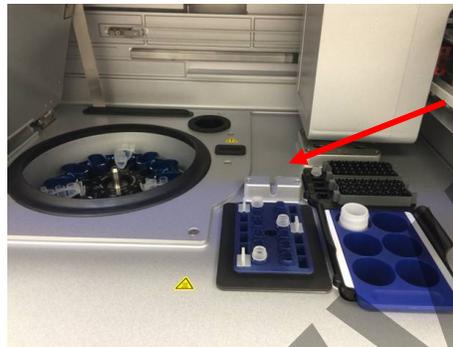
2.6 Retrieve and record lot number for G2 buffer_AutoDiff. Aliquot buffer G2 into a 30ml reagent bottle and place in Reagent Bottle Rack position 1. The minimum amount of buffer needed based on the number of samples is listed in the table below. Do not fill the bottle above the fill line on the side of the bottle. Make sure to pop any bubbles that may have formed covering the mouth of the reagent bottle using a clean pipette tip.

G2 minimum buffer amounts	
# samples	G2 buffer (mL)
3	8.68
4	10.74
5	12.8
6	14.86
7	16.92
8	18.98

FORENSIC BIOLOGY PROTOCOLS FOR FORENSIC STR ANALYSIS

Differential Extraction from Semen Stains or Swabs utilizing the QIAcube and EZ1		
Status: Published		Document ID: 1144
DATE EFFECTIVE 12/30/2025	APPROVED BY Nuclear DNA Technical Leader	PAGE 4 OF 15

9	21.04
10	23.1
(11 or) 12	27.22



Reagent bottle rack position 1

- 2.7 Referring to the “QIAcube Loading chart,” (Appendix A) place sample plugs into the QIAcube shaker for each Extraction Negative and F1 fraction. **ONLY PLACE PLUGS IN APPROPRIATE LOCATIONS BASED ON THE NUMBER OF SAMPLES.**



sample plugs placed in these slots

- 2.8 After the incubation from step 1.7 is done, spin down the original samples briefly to remove condensation from the tube caps.
- 2.9 **Tube Setup WITNESS:** Have a witness verify three sets of tubes:
- Original incubation tube (F1 sample labels)
 - Spin basket tube (F1 sample labels)
 - Rotor setup (F2 sample labels on outside of rotor adapter)
- 2.10 Prepare 10% bleach, distilled water, and 70% alcohol in three 50ml conical tubes. Clean a pair of forceps by dipping the forceps in each of the three tubes briefly and then drying with a fresh Lint

FORENSIC BIOLOGY PROTOCOLS FOR FORENSIC STR ANALYSIS

Differential Extraction from Semen Stains or Swabs utilizing the QIAcube and EZ1

Status: Published

Document ID: 1144

DATE EFFECTIVE 12/30/2025	APPROVED BY Nuclear DNA Technical Leader	PAGE 5 OF 15
------------------------------	---	-----------------

free wipe. For each sample, transfer the substrate using the forceps to its associated spin basket tube. Pipette mix the sample lysate within the incubation tube a few times to disturb any sperm pellet that may have formed, and then pipette the entire lysate volume (~500ul) over the top of the substrate in the spin basket. Close the tube top over the spin basket. Repeat this step for each sample, cleaning and drying the forceps between each sample.

- 2.11 Spin the substrates in spin baskets at 13,200 rpm to 15,000 rpm for 2 minutes.
- 2.12 Using clean and dry forceps, remove and discard the spin baskets (including the swab remains – see NOTE) taking care to avoid bubbles at the rim of the open tube. **NOTE: Refer to Appendix B if it is necessary for a particular case or sample to retain the substrate remains for potential future testing.** Clean and dry forceps between each sample.
- 2.13 Transfer the lysate from the spin basket collection tube, pipette mixing as needed, to its corresponding F2 sample tube within the QIAcube rotor adapter.
- 2.14 **QIAcube Setup WITNESS:** Obtain a witness to verify samples and loading pattern on the QIAcube. Refer to “QIAcube Loading Chart” (Appendix A) for correct tube positioning based on sample number.
 - 2.14.1 Load the rotor adapters containing the F2 samples into the QIAcube centrifuge, reading the F2 LIMS label and rotor position for that sample. If the batch size is 11 samples, an additional blank tube containing water must be placed in the rotor adapter in the 12th slot.
 - 2.14.2 Load the empty F1 sample tubes into the QIAcube shaker, reading the F1 LIMS label and shaker position for each sample. Check to make sure that tubes are pressed all the way down. If the batch size is 11 samples, and additional blank tubes must be placed in the shaker in the 12th slot.
 - 2.14.3 The witness should also check that all sample and reagent bottle caps are removed, tips are full, sample plugs are in place in the shaker, and robot setup is correct for the corresponding sample number.

FORENSIC BIOLOGY PROTOCOLS FOR FORENSIC STR ANALYSIS

Differential Extraction from Semen Stains or Swabs utilizing the QIAcube and EZ1

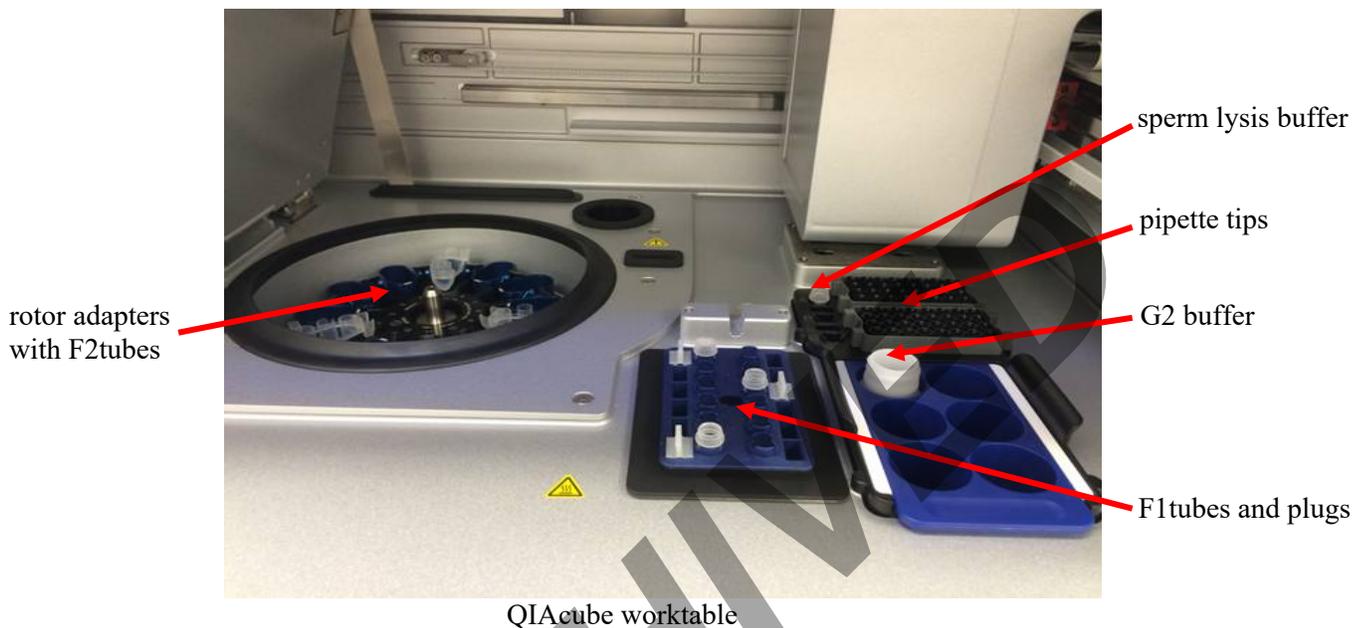
Status: Published

Document ID: 1144

DATE EFFECTIVE
12/30/2025

APPROVED BY
Nuclear DNA Technical Leader

PAGE
6 OF 15



2.15 Close the instrument door and start the separation protocol on the QIAcube:

2.15.1 From the main menu, select “Pipetting Separation and Lysis 12A”

2.15.1.1 This protocol may be chosen from “Last”, if available. Otherwise, choose “DNA” → “Pipetting” → “Epithelial and Sperm Cell” → “Separation and Lysis 12A”

2.15.2 Press “Start”

2.15.3 The screen will display instructions to ensure the QIAcube has been loaded properly. After checking each step, press “Next” until the final step, and then press “Start.”

2.15.4 Run time for protocol 12A is ~52 minutes for a full set of 12 samples.

2.16 During the QIAcube protocol 12A, set up the EZ1 for the F1s.

3 EZ1 setup for F1s:

3.1 Add the EZ1 instrument to the Instrument box at the top of the worksheet.. Fill out the F1Purification response in the Extracted Run By review.

3.2 Remove both the tube rack and cartridge rack from the EZ1.

FORENSIC BIOLOGY PROTOCOLS FOR FORENSIC STR ANALYSIS

Differential Extraction from Semen Stains or Swabs utilizing the QIAcube and EZ1

Status: Published

Document ID: 1144

DATE EFFECTIVE
12/30/2025

APPROVED BY
Nuclear DNA Technical Leader

PAGE
7 OF 15

- 3.3 Obtain reagent cartridges and record the lot number in LIMS. (Note – more than one lot may be used if there are not enough individual cartridges available for your full batch. Please indicate in the batch comments the additional lot number and for which samples it was used). Invert reagent cartridges twice to mix the magnetic particles. Then tap the cartridges to deposit the reagents at the bottoms of their wells. Check that the magnetic particles are re-suspended. Also, visually inspect each reagent well. All wells except wells 9 and 11 must contain liquid.

EZ1/2 CARTRIDGES: Well volumes should appear as below:



Set aside any cartridges that do not appear to be filled like the above and alert QA.

- 3.4 Slide EZ1 reagent cartridges into the cartridge rack, one cartridge for each sample being run. The cartridge label side should be at the blunt end of the rack, closest to the tube rack when loaded into the instrument. Place rack in EZ1.



Reagent cartridge rack with cartridges loaded

- 3.5 Label Qiagen 1.5ml screw cap elution tubes with F1 sample LIMS..

Controlled versions of Department of Forensic Biology Manuals only exist in the Forensic Biology Qualtrax software. All printed versions are non-controlled copies.

© NYC OFFICE OF CHIEF MEDICAL EXAMINER

Qualtrax template 040621

FORENSIC BIOLOGY PROTOCOLS FOR FORENSIC STR ANALYSIS

Differential Extraction from Semen Stains or Swabs utilizing the QIAcube and EZ1		
Status: Published		Document ID: 1144
DATE EFFECTIVE 12/30/2025	APPROVED BY Nuclear DNA Technical Leader	PAGE 8 OF 15

- 3.6 Assemble EZ1 tips and tip holders. Place them in row 2 of the EZ1 tube rack.
- 3.7 At the conclusion of protocol “separation and Lysis 12 A” on the QIAcube, the screen will then give instructions on how to clean the QIAcube. Press “Next” after each step until the main menu appears on the screen. Open the QIAcube instrument door and take out the F1 fraction samples from the QIAcube shaker, capping each sample with a tube cap as it is removed.

4 QIAcube set up for F2s:

- 4.1 Refill the tip racks on the QIAcube with disposable Filter-Tips and ensure buffers are in place and uncapped. Empty the waste drawer.
- 4.2 Close the instrument door and start the sperm washing protocol on the QIAcube:
- 4.2.1 From the main menu, select “Pipetting Separation and Lysis 12B”
- 4.2.1.1 This protocol may be chosen from “Last”, if available. Otherwise, choose “DNA” → “Pipetting” → “Epithelial and Sperm Cell” → “Separation and Lysis 12B”.
- 4.2.2 Press “Start”
- 4.2.3 The screen will display instructions to ensure the QIAcube has been loaded properly. After checking each step, press “Next” until the final step, and then press “Start.”
- 4.2.4 Run time for this protocol is ~48 minutes for a set of 12 samples.

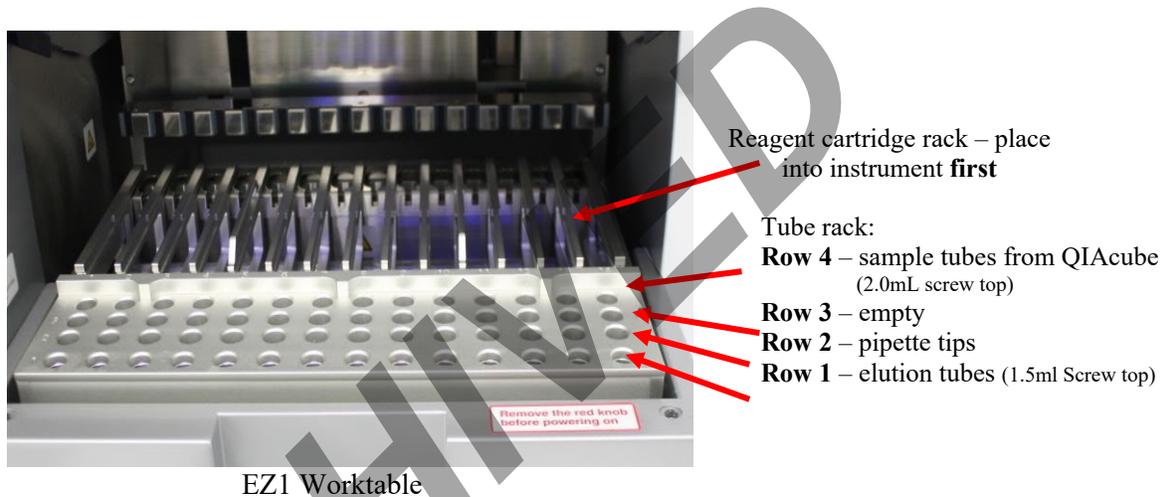
5 EZ1 F1 Sample preparation and purification:

- 5.1 While the QIAcube is running, prepare the F1 samples for the EZ1.
- 5.2 Record lot numbers for MTL and carrier RNA into LIMS. Add 400µl of MTL buffer, and 1µl carrier RNA (1µg/µl) to each F1 fraction Extraction Negative and sample obtained from the QIAcube. Precipitate may form in the tube with the addition of the MTL buffer.
- 5.3 **EZ1 F1 Setup WITNESS:** Have a witness verify the samples and loading of the F1 Extraction Negatives and samples on to the EZ1.
- 5.3.1 Load the 2ml F1 sample tubes into row 4 of the EZ1 tube rack, reading the LIMS label and removing the screw cap as you load each sample.
- 5.3.2 Next, load the labeled 1.5mL F1 sample elution tubes into row 1 of the EZ1 tube rack, reading the LIMS label and removing the screw cap as you load each sample.

FORENSIC BIOLOGY PROTOCOLS FOR FORENSIC STR ANALYSIS

Differential Extraction from Semen Stains or Swabs utilizing the QIAcube and EZ1		
Status: Published		Document ID: 1144
DATE EFFECTIVE 12/30/2025	APPROVED BY Nuclear DNA Technical Leader	PAGE 9 OF 15

- 5.3.3 Place tube rack into the EZ1. Make sure that the tube rack is loaded onto the instrument after the cartridge rack.
- 5.3.4 Witness should verify that all samples, reagents, and racks are loaded appropriately on the instrument.



- 5.4 Run the EZ1 protocol for purification of the F1 fractions:
- 5.4.1 If needed, press “ESC” to get to the main menu.
- 5.4.2 From the main menu press “Start” to begin a run.
- 5.4.3 When asked if you would like to create a run report, press “ESC” to select no.
- 5.4.4 For F1 fractions, press “3” to select the large volume protocol
- 5.4.5 Press “2” to select elution in TE.
- 5.4.6 Press “1” to select the 40uL elution volume.
- 5.4.7 The screen will display instructions to ensure the EZ1 has been loaded properly. After checking each step, press “ENT” until the final step, and then press “Start.”
- 5.4.8 The protocol run time is ~18 minutes
- 5.5 Create a reference tube with 36µl of 0.1X TE⁻⁴.
- 5.6 After the protocol is completed, press “ENT” to continue.

FORENSIC BIOLOGY PROTOCOLS FOR FORENSIC STR ANALYSIS

Differential Extraction from Semen Stains or Swabs utilizing the QIAcube and EZ1		
Status: Published		Document ID: 1144
DATE EFFECTIVE 12/30/2025	APPROVED BY Nuclear DNA Technical Leader	PAGE 10 OF 15

- 5.7 Open the instrument door and remove the tube rack. Remove the 1.5mL F1 elution tubes, capping each sample with the labeled tube top.
- 5.8 Compare each extract to the reference tube containing 36µl of 0.1X TE⁻⁴. If the volume appears lower than 36µl, measure the extract.
- 5.8.1 Measured volumes below 36µl should be documented in the Lab Supervisor Issues Log and the test batch comments.
- 5.8.2 Samples with measured volumes below 27µl must not proceed for further testing.
- 5.9 Discard all the used cartridges, lysate tubes, tip-holders, and tips.
- 5.10 The EZ1 instrument can now be set up for the F2 purification.
- 6 EZ1 F2 Sample preparation and purification:**
- 6.1 Fill out the F2 Purification response in the Extracted Run By review.
- 6.2 Remove both the tube rack and cartridge rack from the EZ1.
- 6.3 Invert reagent cartridges twice to mix the magnetic particles. Then tap the cartridges to deposit the reagents at the bottoms of their wells. Check that the magnetic particles are re-suspended. Visually inspect each reagent well and ensure that all wells except wells 9 and 11 contain liquid.
- 6.4 Slide EZ1 reagent cartridges into the cartridge rack, one cartridge for each sample being run. The cartridge label side should be at the blunt end of the rack, closest to the tube rack when loaded into the instrument. Place rack in EZ1.
- 6.5 Label Qiagen 1.5ml screw cap elution tubes and caps with seF2 sample LIMS labels.
- 6.6 Assemble EZ1 tips and tip holders. Place them in row 2 of the EZ1 tube rack.
- 6.7 After the “Separation and Lysis 12 B” protocol is complete on the QIAcube, the F2 fractions will be found in the 1.5ml tubes in the rotor adapters. Remove the tubes from each rotor adapter, closing the cap as you remove each sample. Discard the rotor adapters.
- 6.8 Vortex the F2 fraction samples for 5 seconds. Incubate at 70°C for 10 minutes at 900rpm shaking in a thermomixer. Record the thermomixer temperature in LIMS and add the instrument in the ‘Additional Information’ section. Add the instrument to the ‘Instrument’ box at the top of the worksheet. (The QIAcube may be cleaned during this incubation, or after the F2 fractions are loaded onto the EZ1 – refer to step 6.14.)

FORENSIC BIOLOGY PROTOCOLS FOR FORENSIC STR ANALYSIS

Differential Extraction from Semen Stains or Swabs utilizing the QIAcube and EZ1		
Status: Published		Document ID: 1144
DATE EFFECTIVE 12/30/2025	APPROVED BY Nuclear DNA Technical Leader	PAGE 11 OF 15

- 6.9 Vortex the samples vigorously for 10 seconds after the incubation. Briefly spin down the samples in a centrifuge.
- 6.10 Add 1µl of carrier RNA to each sample.
- 6.11 Holding the lid closed with your thumb, cut through the tube cap connector for each F2 tube.
- 6.12 **EZ1 F2 Setup WITNESS:** Have a witness verify the samples and loading of the F2 Extraction Negatives and samples on to the EZ1:
- 6.12.1 Read the F2 sample LIMS label and remove and discard the lid with a tube opener. Place the tubes with F2 fraction into row 4 of the EZ1 tube rack.
 - 6.12.2 Next, load the empty labeled 1.5mL F2 sample elution tubes into row 1 of the EZ1 tube rack, reading the LIMS label and tube top, removing the screw cap as you load each sample.
 - 6.12.3 Place tube rack into the EZ1. Make sure that tube rack is loaded onto the instrument after the cartridge rack.
 - 6.12.4 Witness should verify that all samples, reagents, and racks are loaded appropriately on the instrument.
- 6.13 Close the instrument door and start the protocol for F2 purification.
- 6.13.1 From the main menu, press “Start” to begin a run.
 - 6.13.2 When asked if you would like to create a run report, press “ESC” to select no.
 - 6.13.3 For F2 fractions, press “1” to select the trace protocol.
 - 6.13.4 Press “2” to select elution in TE.
 - 6.13.5 Press “1” to select the 40uL elution volume.
 - 6.13.6 The screen will display instructions to ensure the EZ1 has been loaded properly. After checking each step, press “ENT” until the final step, and then press “Start.”
 - 6.13.7 The run time for this protocol is ~18 minutes.
- 6.14 Clean the QIAcube instrument:
- 6.14.1 **DO NOT USE BLEACH ON THE INSTRUMENT, ONLY 70% ETOH WITH LINT FREE WIPES. NEVER SPRAY ETHANOL DIRECTLY ON THE INSTRUMENT.**

FORENSIC BIOLOGY PROTOCOLS FOR FORENSIC STR ANALYSIS

Differential Extraction from Semen Stains or Swabs utilizing the QIAcube and EZ1		
Status: Published		Document ID: 1144
DATE EFFECTIVE 12/30/2025	APPROVED BY Nuclear DNA Technical Leader	PAGE 12 OF 15

- 6.14.2 Empty the waste drawer and check that the liner is clean.
- 6.14.3 Remove but DO NOT DISCARD THE SAMPLE PLUGS.
- 6.14.4 Discard the sperm lysis buffer tube. The G2 buffer may be capped and stored on the instrument deck. Remove pipette tip racks and consolidate any partial racks of tips for future use.
- 6.14.5 Wipe down the entire inside of the QIAcube instrument using a lint-free wipe with 70% EtOH, including the waste drawer.
- 6.15 After the F2 run is complete on the EZ1, press “ENT” to continue.
- 6.16 Open the instrument door and remove the tube rack. Remove 1.5mL F2 elution tubes, capping each sample with its associated labeled tube top.
- 6.17 Compare each extract to the reference tube containing 36µl of 0.1X TE⁻⁴. If the volume appears lower than 36µl, measure the extract.
- 6.17.1 Measured volumes below 36µl should be documented in the Lab Supervisor Issues Log and the test batch comments.
- 6.17.2 Samples with measured volumes below 27µl must not proceed for further testing.
- 6.18 Discard all the used cartridges, lysate tubes, tip-holders, and tips.
- 7 Clean the EZ1 instrument:**
- 7.1 DO NOT USE BLEACH ON THE INSTRUMENT, ONLY 70% ETOH WITH LINT FREE WIPES. NEVER SPRAY ETHANOL DIRECTLY ON THE INSTRUMENT.
- 7.2 Remove reagent cartridges and any waste, discard appropriately.
- 7.3 Wipe down the inside of the instrument using a lint free wipe and 70% EtOH.
- 7.4 Close the EZ1 door.
- 7.5 Follow the prompts on the screen to start a UV run, setting the time to 20 minutes.
- 8 LIMS Post Processing**
- 8.1 Fill out the Pass or Fail response in the Extraction Run By Review .
- 8.2 Store the extracts at 2° to 8°C or frozen.

FORENSIC BIOLOGY PROTOCOLS FOR FORENSIC STR ANALYSIS

Differential Extraction from Semen Stains or Swabs utilizing the QIAcube and EZ1

Status: Published		Document ID: 1144
DATE EFFECTIVE 12/30/2025	APPROVED BY Nuclear DNA Technical Leader	PAGE 13 OF 15

- 8.3 Create the QUANTTRIO submission for the samples.
- 8.4 Verify the samples listed on the Trio Submission Worksheet click [Save] and close the Submission worksheet.

ARCHIVED

FORENSIC BIOLOGY PROTOCOLS FOR FORENSIC STR ANALYSIS

Differential Extraction from Semen Stains or Swabs utilizing the QIAcube and EZ1

Status: Published

Document ID: 1144

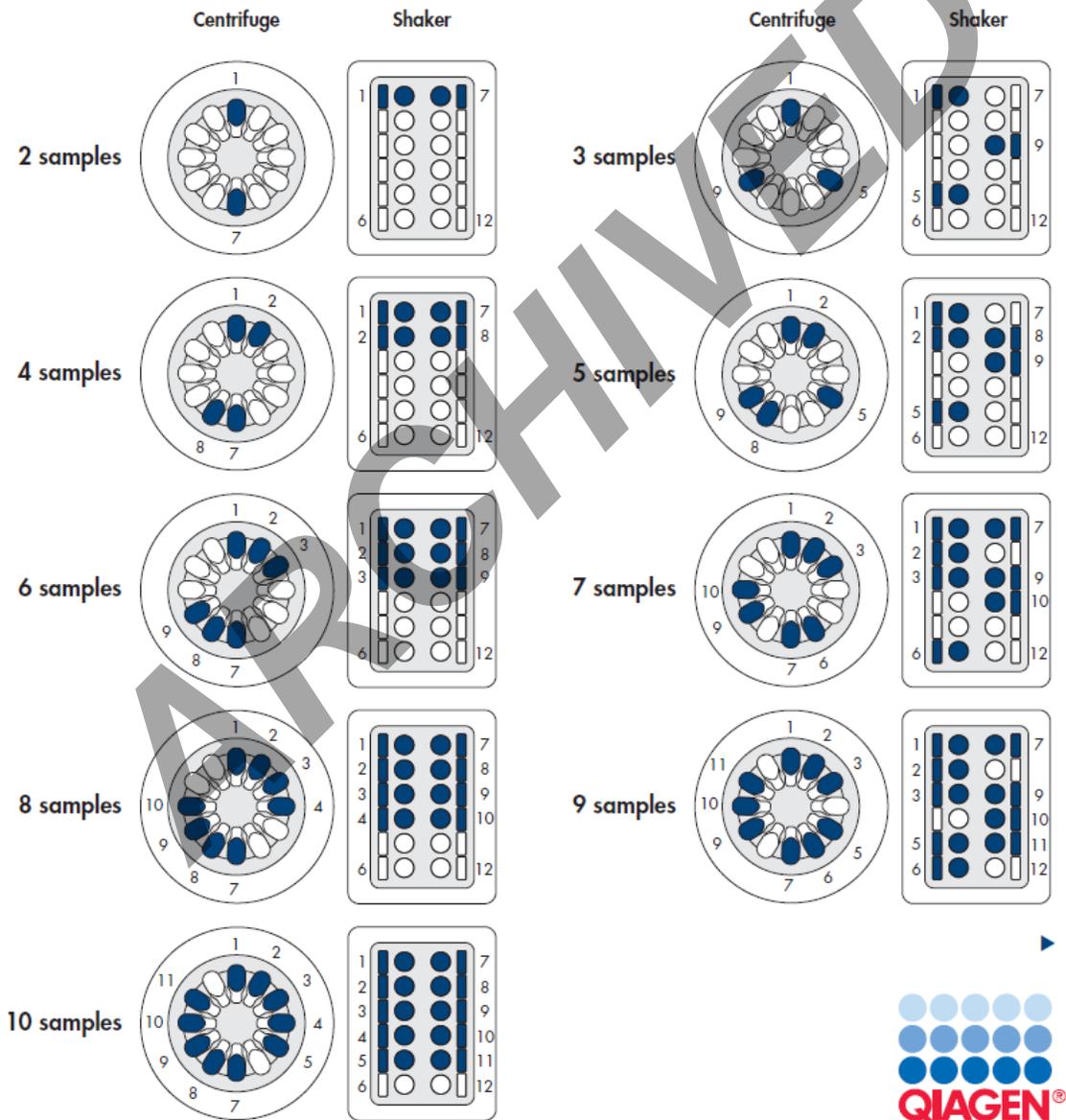
DATE EFFECTIVE
12/30/2025

APPROVED BY
Nuclear DNA Technical Leader

PAGE
14 OF 15

9 Appendix A: QIAcube Loading Chart

The chart below describes how to correctly load the QIAcube centrifuge and shaker if fewer than 12 samples are to be processed in one run. Please note, if only 11 samples are on the batch, a blank must be added to fill the 12th slot.



Controlled versions of Department of Forensic Biology Manuals only exist in the Forensic Biology Qualtrax software. All printed versions are non-controlled copies.

© NYC OFFICE OF CHIEF MEDICAL EXAMINER

Qualtrax template 040621

FORENSIC BIOLOGY PROTOCOLS FOR FORENSIC STR ANALYSIS

Differential Extraction from Semen Stains or Swabs utilizing the QIAcube and EZ1		
Status: Published		Document ID: 1144
DATE EFFECTIVE 12/30/2025	APPROVED BY Nuclear DNA Technical Leader	PAGE 15 OF 15

10 Appendix B: Retaining a substrate remains

10.1 In the event that a substrate needs to be retained, follow these steps after Step 2.12 of the SOP:

- 10.1.1 Go to Analytical Testing >> Manage Sample.
- 10.1.2 On the Search by Query list click 'Test Batch Input Samples'.
- 10.1.3 Search using the test batch ID.
- 10.1.4 Select the sample which will be retained and click [Un-Dispose].
- 10.1.5 With the sample selected, click [Assign Storage].
- 10.1.6 Associate the sample with the next available extract storage cryobox and location.
- 10.1.7 Back in the Manage Sample page with the sample still selected click [Print Label] on the Side Bar.
- 10.1.8 Affix this label to a clean, 1.5 mL tube that the substrate will be stored in.
- 10.1.9 During the spin basket step (Step 2.13 of the SOP) place the substrate, using clean forceps, into the labeled 1.5 mL tube.
- 10.1.10 Store the substrate at 2° to 8°C, or frozen.