

*Approved by Director: Dr. Guy Vallaro***PRODUCT(S) OF CONCEPTION (POC) COLLECTION AND PRESERVATION****29.1 PURPOSE**

To collect and preserve POC samples for present and/or future analysis.

29.2 RESPONSIBILITY

Personnel qualified to perform Forensic Biology duties.

29.3 SAFETY

Use appropriate measures for the proper handling of a biohazardous material according to GL-2 (Safety Manual).

29.4 DEFINITIONS/ABBREVIATIONS

29.4.1 QRW(s): Quality Record Worksheet(s); Appendix 1

29.5 PROCEDURE**29.5.1: Materials**

- A. Petri dish or similar specimen container (sterile if possible)
- B. dH₂O
- C. Forceps
- D. Scalpels
- E. Centrifuge tubes (sterile)

29.5.2: Procedure

29.5.2.1 If the sample is suspected to be in formaldehyde then it should be removed and rinsed with dH₂O as soon as possible. Do not place it back into the original solution. Place in dH₂O.

29.5.2.2 If the sample will not be examined the same day it is submitted, then it should be transferred into the appropriate freezer storage.

29.5.2.3 Allow submission to thaw if previously frozen (typically overnight).

29.5.2.4 Record all written information on the appropriate QRW(s).

29.5.2.5 Label centrifuge tube(s) with the Laboratory ID#, item # and initials of examiner.

29.5.2.6 Remove sample and place into petri dish (or similar).

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- 29.5.2.7 Gently rinse sample with dH₂O to aid in removing any maternal blood.
- 29.5.2.8 Examine for anatomical structures.
- 29.5.2.8.1 If observed, collect a portion of the structure and place into an appropriately labeled centrifuge tube.
- 29.5.2.8.2 If no anatomical structure(s) are apparent, examine for fetal/placental-type tissue (i.e. chorionic villi; see Figures 1A, 1B and 2). Ensure that the sample is fully submerged in dH₂O in order to visualize.
- Using forceps, collect a sample by gently plucking the villi.
 - Place sample into an appropriately labeled centrifuge tube.
- 29.5.2.9 A minimum of one (1) additional sample should be collected and retained for future testing.
- 29.5.2.10 Return remaining sample and dH₂O rinse to original container.
- 29.5.2.11 Sub-itemize the collected sample(s) according to GL-4 (LIMS).
- 29.5.2.12 Forward appropriate sample for DNA analysis and retain any additional sample(s) collected. Note: Maternal DNA can be obtained from placental tissue if there is a question of maternity.
- 29.5.2.13 Collected sample(s) will be handled according to FB SOP-01 (Evidence Examination and Sample Collection Guidelines).
- 29.5.2.14 Since POC cases fall under Forensic Biology Sample Prep requests, writing a Forensic Biology report is typically unnecessary.

29.6 REFERENCES

- Martini, F. H. (1998). Chapter 29: Development and Inheritance, Section: The Formation of Extraembryonic Membranes. In *Fundamentals of Anatomy and Physiology* (Fourth edition, pp. 1094-1097). Prentice Hall, Inc.
- GL-2 (Safety Manual)
- GL-4 (LIMS)

Figure #1A: Example of fetal/placental-type tissue (chorionic villi) before addition of dH₂O.

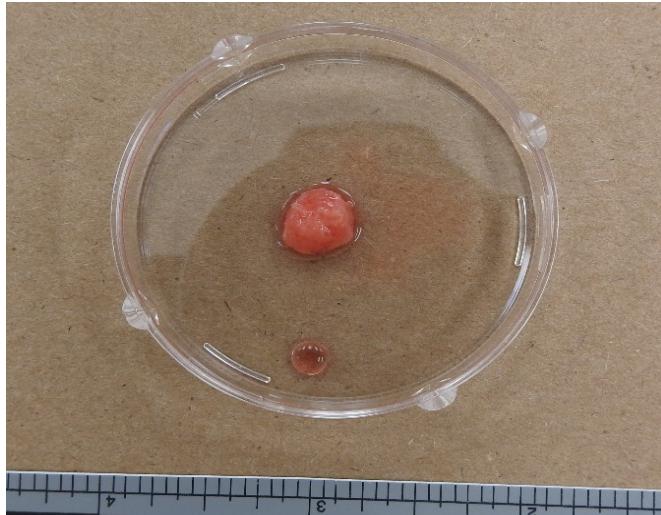


Figure #1B: Example of fetal/placental-type tissue (chorionic villi) after addition of dH₂O.

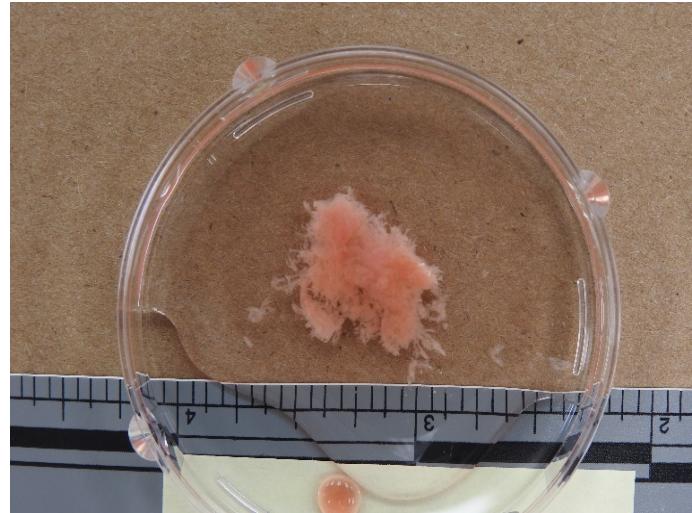


Figure #2: Example of fetal/placental-type tissue (chorionic villi) after addition of dH₂O.

