

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).

- 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.
- a. Using forceps, collect a sample by gently plucking the villi.
 - b. 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

- A. 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.
- B. GL-2 (Safety Manual)
- C. GL-4 (LIMS)

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

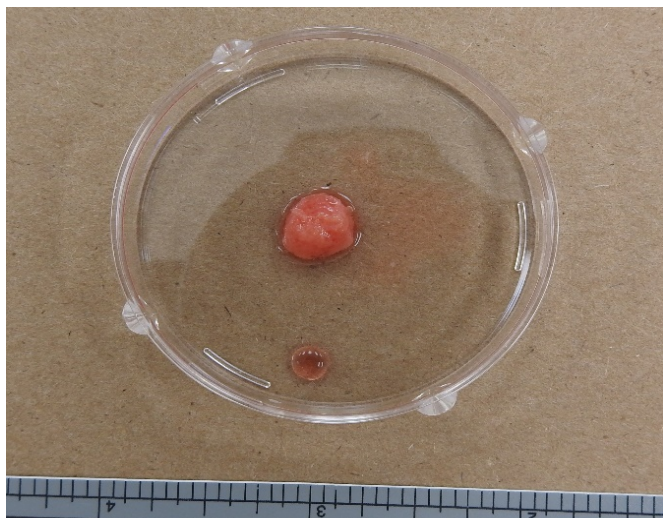


Figure #1B: Example of fetal/placental-type tissue (chorionic villi) after addition of dH₂O.

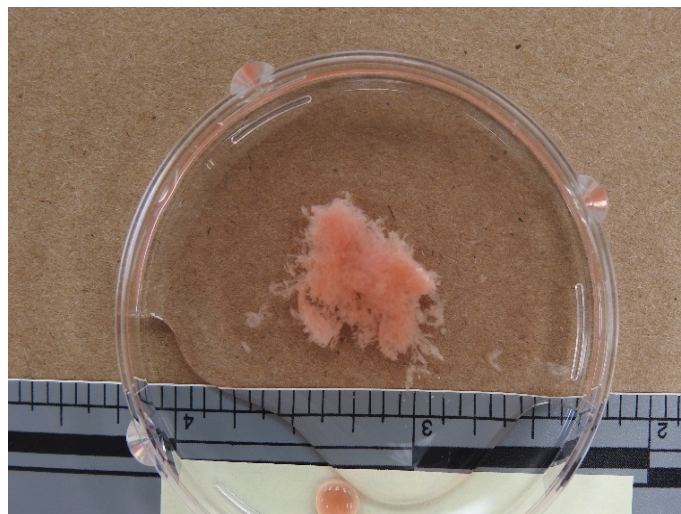


Figure #2: Example of fetal/placental-type tissue (chorionic villi) after addition of dH₂O.

