

Pregnancy Loss Analysis Specimen Guide

CombiMatrix accepts fresh tissue, formalin-fixed paraffin-embedded tissue (FFPE) blocks and/or unstained slides and. In order to provide you with the highest quality results, it is important that we receive a fetal tissue sample of sufficient size and quality. Proper tissue selection and sampling technique greatly enhance our ability to provide results for your patients. This guide will help you to identify the optimal type, size and storage method for products of conception (POC) samples.

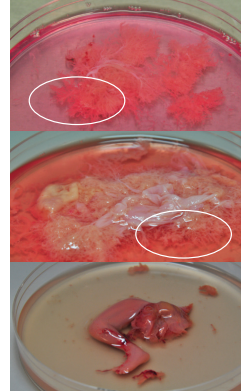
Fresh Tissue Sorting Guidelines

First Trimester Losses / No Visible Fetal Parts

If no fetal parts are visible, it is ideal to collect a minimum of 25 mg of chorionic villi (1.0 cm³, about the size of a small marble) from the placenta. For best results, clean the specimen prior to sending by removing large blood clots from the sample and washing the tissue with sterile saline until it is clear of blood. This helps clean the tissue, reduces the likelihood of contamination from maternal blood, and allows for better identification of the fetal tissue. When possible, separate the villi from the maternal decidua. (Decidua looks pink, dense, and sheet like. Villi, when well-rinsed, tend to float and look feathery and whiter than the decidua.)

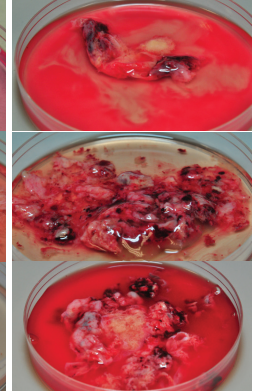
If it is not possible to clean the sample before sending it, please collect a slightly larger sample (1.5 cm³, about the size of a large marble) to help ensure that sufficient villi are included in the sample. It is important that the sample is placed in RPMI supplemented with antibiotics to keep the sample moist and help prevent bacterial growth while it is being transported. If RPMI with antibiotics is not available, sterile saline can be used. Avoid storing samples in formalin-based solutions. If the sample cannot be stored in RPMI or saline, it can be fixed in formalin and embedded in a paraffin block (FFPE).

Good Quality Samples



Samples with "fluffy" outer edges or recognizable fetal parts are considered to be of good quality.

Poor Quality Samples



Globular masses with smooth edges or blood clots are not desirable samples.

Later Losses, Intrauterine Fetal Demise, and Stillbirth / Visible Fetal Parts

When fetal parts are visible, the ideal fetal tissue to collect is skeletal or cardiac muscle. Samples of the skin, connective tissue, or internal organs are also acceptable. If the family objects to taking a fetal sample, 1-2 mL of cord blood or a section of the umbilical cord near the site of insertion should be obtained. The minimum recommended sample size for fetal tissue is 25 mg or ~1.0 cm³ (about the size of a small marble).

The following diagram can be used as a visual guide when collecting a fetal specimen. As a reminder, fetal samples should be placed in RPMI supplemented with antibiotics. Specimen kits and the recommended RPMI antibiotics transport media are available at no charge – simply contact our Client Services Department at 800.710.0624, opt 1 or by email at clientservices@combimatrix.com to request it.

Fresh POC Tissue Sizing Guide

Sample size for *cleaned villi* or fetal tissue:

Size of small marble
1.0 cm³ / 1.0 cc



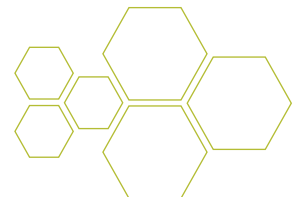
Sample size for *uncleaned villi* or fetal tissue:

Size of large marble
1.5 cm³ / 1.5 cc



Fresh Tissue Shipping Instructions

1. Complete the test requisition form and ensure that all of the required information has been provided.
2. Label each tube with the patient's name, date of birth, gender and date of specimen collection. If known, please indicate fetal gender.
3. Place the POC tissue into the 50 mL tube containing sterile transport medium and cap the tube tightly to prevent leakage. Then place the tube and any other samples (FFPE blocks, slides, maternal blood sample or extracted DNA) directly into the biohazard specimen bag along with the absorbent pad.
4. Seal the bag by exhausting excess air and pressing firmly along the seal treads.
5. Place the sealed biohazard bag with all its contents and the completed requisition form into the cardboard transport kit, and close it. If, during transport, the POC sample may be exposed to temperatures above room temperature (20°C), please include a cold-pack.
6. Insert the transport kit into the FedEx Clinical Pak and firmly seal it.
7. If your office does not have regularly scheduled sample pick-ups, please drop off the kit or call 800.GOFEDEx (800.463.3339) to schedule one.



Same day shipping is strongly recommended. For samples shipped on Friday, please request overnight delivery for Saturday morning. If the sample cannot be shipped same-day, store both the tissue and blood sample in the refrigerator until it can be shipped. Fresh tissue samples are best when received by our laboratory within 48 hours following collection.

FFPE Blocks – Solid Tissue

If providing paraffin-embedded tissue blocks, a sample size of 1.0cm³ target tissue is optimal.

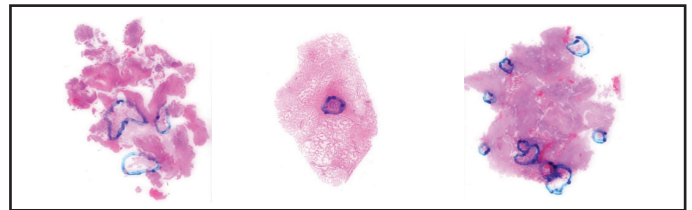
Unstained Slides

When providing unstained slides, please include at least 10 unstained slides with FFPE tissue cut at 7 micron thickness, such that the total amount of fetal tissue contained on the slides is $\geq 1\text{cm}^3$ fetal tissue. Please also include 1 H&E stained slide for review.

Good Tissue Specimen



Suboptimal Tissue Specimen



FFPE Blocks and Unstained Slides Shipping Instructions

1. Complete the test requisition form and ensure that all of the required information has been provided.
2. Label each sample with the patient's name, date of birth, gender and date of specimen collection. If known, please indicate fetal gender.
3. Place samples (FFPE tissue blocks, slides) directly into the biohazard specimen bag along with the absorbent pad.
4. Seal the bag by exhausting excess air and pressing firmly along the seal treads.
5. Place the sealed biohazard bag with all its contents and the completed requisition form into the cardboard transport kit, and close it. Insert the transport kit into the FedEx Clinical Pak and firmly seal it.
6. If your office does not have a regularly scheduled sample pick-ups, please drop off the kit at your local FedEx office or call 800.GO-FEDEX (800.463.3339) to schedule a pick-up.

If you would like to order supplies, or have any additional questions regarding specimen types or proper handling, please contact Client Services at 949.255.0920 or by email at clientservices@combimatrix.com.

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Better **Care.**

