

## Overview

### Useful For

Producing cell cultures that can be used for genetic analysis

### Testing Algorithm

This processing test is for culturing chorionic villus or products of conception specimens for cytogenetic, molecular genetic, or other testing. No analysis or interpretation of results is performed.

Once confluent flasks are established, the cultures are sent to other laboratories, either within Mayo Clinic Laboratories or to external sites, based on the specific testing requested.

### Special Instructions

- [Final Disposition of Fetal/Stillborn Remains](#)

### Method Name

Cell Culture

### NY State Available

Yes

## Specimen

### Specimen Type

Tissue

### Ordering Guidance

This test is most useful for chorionic villus sampling and products of conception specimens.

This test is **not appropriate for** culturing other tissue specimens such as skin biopsies. If this test is ordered on other tissue types, the test will be canceled and FIBR/ Fibroblast Culture, Tissue will be performed as the appropriate test.

### Shipping Instructions

Advise Express Mail or equivalent if not on courier service

### Necessary Information

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Provide a reason for referral with each specimen. The laboratory will not reject testing if this information is not provided, but appropriate testing and interpretation may be compromised or delayed.

The additional tests desired **must be indicated** on the request form that accompanies the specimen.

**Specimen Required**

Submit only 1 of the following specimens:

**Specimen Type:** Autopsy

**Supplies:** Hank's Solution (T132)

**Container/Tube:** Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline

**Specimen Volume:** 4-mm diameter

**Collection Instructions:**

1. Wash biopsy site with an antiseptic soap.
2. Thoroughly rinse area with sterile water.
3. Do not use alcohol or iodine preparations.
4. Biopsy specimens are best taken by punch biopsy to include full thickness of dermis.

**Specimen Type:** Chorionic villi

**Supplies:** CVS Media (RPMI) and Small Dish (T095)

**Container/Tube:** 15 mL tube containing 15 mL of transport media

**Specimen Volume:** 20-30 mg

**Collection Instructions:**

1. Collect specimen by the transabdominal or transcervical method.
2. Transfer the chorionic villi specimen to a Petri dish containing transport medium.
3. Using a stereomicroscope and sterile forceps, assess the quality and quantity of the villi and remove any blood clots

and maternal decidua.

**Specimen Type:** Products of conception or stillbirth

**Supplies:** Hank's Solution (T132)

**Container/Tube:** Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline

**Specimen Volume:** 1 cm(3) of placenta (including 20 mg of chorionic villi) **and** a 1 cm(3) biopsy specimen of muscle/fascia from the thigh

**Collection Instructions:** If a fetus cannot be specifically identified, collect 50 mg villus material or tissue that appears to be of fetal origin.

**Additional Information:** Do not send entire fetus.

## Forms

[Final Disposition of Fetal/Stillborn Remains](#) (if fetal specimen is sent) in Special Instructions. Only required for products of conception or stillbirth specimen.

## Reject Due To

All specimens will be evaluated at Mayo Clinic Laboratories for test suitability.

## Specimen Minimum Volume

See Specimen Required

## Specimen Stability Information

Specimen Type	Temperature	Time	Special Container
Tissue	Refrigerated (preferred)		
	Ambient		

## Clinical & Interpretive

### Clinical Information

Cultured cells may be used to perform a wide range of laboratory tests. Prior to testing, the tissue may need to be cultured to obtain adequate numbers of cells.

### Reference Values

Not applicable

**Cautions**

Interfering factors:

- Inadequate amount of specimen may not permit adequate analysis
- Exposure of the specimen to temperature extremes (freezing or greater than 30 degrees C) may kill cells and interfere with attempts to culture cells
- Improper packaging may result in broken, leaky, and contaminated specimens during transport
- Transport time should not exceed 2 days
- Contamination by maternal cells may interfere with attempts to culture cells and may cause interpretive problems

**Clinical Reference**

Arsham MS, Barch MJ, Lawce HJ, eds: The AGT Cytogenetics Laboratory Manual. 4th ed. John Wiley and Sons Inc; 2017

**Performance****Method Description**

Products of Conception/Autopsy/Stillbirth/Skin Biopsy:

The biopsy specimen is cut into small pieces, treated with collagenase, and placed in a tissue culture flask with Chang and MEM alpha-medium, 20 percent fetal bovine serum, and antibiotics to establish a fibroblast culture. The cultures are trypsinized into 1 to 3 T25 tissue culture flasks or 1 to 2 T75 tissue culture flasks.

Chorionic Villi Specimen:

The chorionic villi specimen is thoroughly cleaned using sterile forceps to remove the remaining maternal decidua and blood clots. The villi are then treated with trypsin and collagenase. The cells are grown in Chang and MEM-alpha medium for 5 to 10 days.(May KM, Saxe DF, Priest JH: Prenatal chromosome diagnosis. In: Arsham MS, Barch MJ, Lawce HJ, eds: The AGT Cytogenetics Laboratory Manual. 4th ed. John Wiley and Sons Inc;\_2017:182-184)

**PDF Report**

No

**Specimen Retention Time**

Cell cultures: 6 months; Fresh tissue not utilized to establish cultures: 1 month

**Performing Laboratory Location**

Rochester

**Fees & Codes****Test Classification**

Not Applicable

**CPT Code Information**

88233

88240

**LOINC® Information**

Test ID	Test Order Name	Order LOINC Value
CULFB	Fibroblast Culture for Genetic Test	96300-9

Result ID	Reporting Name	LOINC®
52327	Result Summary	50397-9
52329	Interpretation	69965-2
52328	Result	82939-0
CG770	Reason for Referral	42349-1
CG899	Specimen	31208-2
52331	Source	31208-2
52332	Method	85069-3
54625	Additional Information	48767-8
52333	Released By	18771-6