

Parental Sample Prep for Prenatal Microarray
Testing, Blood

#### Overview

#### **Useful For**

Preparing parental blood specimen for possible confirmation testing if an abnormality is detected on the prenatal array sample

DNA extraction of the maternal blood specimen used for maternal cell contamination testing

# **Testing Algorithm**

This test contains no charge and serves as a way to correlate proband and parental specimens. If additional testing is warranted, the appropriate tests will be added.

When CMAP / Chromosomal Microarray, Prenatal, Amniotic Fluid/Chorionic Villus Sampling; CMAPC / Chromosomal Microarray, Autopsy, Products of Conception, or Stillbirth, Varies; or CMAMT / Chromosomal Microarray, Autopsy/Products of Conception/Stillbirth, Tissue is ordered, parental blood specimens are collected and prepared for confirmation studies should an abnormality be detected on the prenatal sample. If an abnormality is detected on the fetal specimen, the most appropriate testing (microarray, FISH, or chromosome analysis) to aid in the interpretation of the prenatal result can be performed on the parental specimens. A paternal blood specimen is requested but not required.

Maternal cell contamination testing will be performed on the maternal blood and prenatal specimens to rule out the presence of maternal cells in the fetal sample.

#### **Method Name**

DNA Extraction/Cell Culture

# **NY State Available**

Yes

# Specimen

#### Specimen Type

Whole blood

# **Additional Testing Requirements**

This test must be ordered in conjunction with CMAP / Chromosomal Microarray, Prenatal, Amniotic Fluid/Chorionic Villus Sampling; CMAPC / Chromosomal Microarray, Autopsy, Products of Conception, or Stillbirth, Varies; or CMAMT / Chromosomal Microarray, Autopsy/Products of Conception/Stillbirth, Tissue. Each parent should have a specimen collected for this test ID using a different order number than the fetal specimen collected for the CMAP, CMAPC, or CMAMT order.



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# **Necessary Information**

1. The reason for testing is required.

**2.** Include the name listed on the prenatal specimen that was submitted for CMAP / Chromosomal Microarray, Prenatal, Amniotic Fluid/Chorionic Villus Sampling; CMAPC / Chromosomal Microarray, Autopsy, Products of Conception, or Stillbirth, Varies; or CMAMT / Chromosomal Microarray, Autopsy/Products of Conception/Stillbirth, Tissue.

# Specimen Required

This test requires 2 blood specimens: 1 sodium heparin and 1 EDTA

Specimen Type: Whole blood

Container/Tube: Green top (sodium heparin) and lavender top (EDTA)

Specimen Volume: 3 mL EDTA and 4 mL sodium heparin

**Collection Instructions:** 

1. Invert several times to mix blood.

2. Send whole blood specimens in original tubes. **Do not aliquot.** 

# Specimen Minimum Volume

2 mL EDTA and 2 mL sodium heparin whole blood

# **Reject Due To**

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

#### **Specimen Stability Information**

| Specimen Type | Temperature         | Time | Special Container |
|---------------|---------------------|------|-------------------|
| Whole blood   | Ambient (preferred) |      |                   |
|               | Refrigerated        |      |                   |

## Clinical & Interpretive

# **Clinical Information**

In order to interpret equivocal array results on a prenatal sample (amniotic fluid or chorionic villus), parental studies are performed to determine if the abnormality detected on the prenatal array is inherited or de novo.

Maternal cell contamination testing is performed on the maternal blood and prenatal specimen to detect the presence of maternal cells in the fetal sample.

#### **Reference Values**

An interpretive report will be provided.

#### Interpretation

No interpretation will be provided. This test is for specimen processing only.



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#### **Cautions**

No significant cautionary statements

#### **Performance**

## **Method Description**

The heparinized sample will be cultured following standard laboratory protocols and a fixed-cell pellet will be prepared. DNA will be extracted from the EDTA sample and used to perform maternal cell contamination testing on the maternal sample. The fixed cell pellet and DNA will be stored in the laboratory for possible confirmation testing if an abnormality is detected on the prenatal array sample. (Unpublished Mayo method)

#### **PDF Report**

No

# Day(s) Performed

Monday through Friday

## **Report Available**

**Varies** 

#### **Specimen Retention Time**

4 weeks

# **Performing Laboratory Location**

Mayo Clinic Laboratories - Rochester Main Campus

#### **Fees & Codes**

#### **Fees**

- Authorized users can sign in to <u>Test Prices</u> for detailed fee information.
- Clients without access to Test Prices can contact <u>Customer Service</u> 24 hours a day, seven days a week.
- Prospective clients should contact their account representative. For assistance, contact <u>Customer Service</u>.

#### **Test Classification**

Not Applicable

# **CPT Code Information**

This test ID contains no charge and serves as a way to correlate proband parental specimens. If additional testing is warranted, the appropriate tests will be added.

#### **LOINC®** Information



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| Test ID | Test Order Name                   | Order LOINC® Value |
|---------|-----------------------------------|--------------------|
| PPAP    | Parental Prenatal Array Prep Test | In Process         |

| Result ID | Test Result Name    | Result LOINC® Value |
|-----------|---------------------|---------------------|
| 55079     | Result Summary      | 50397-9             |
| 52978     | Interpretation      | 69965-2             |
| 52979     | Reason For Referral | 42349-1             |
| 53337     | Specimen            | 31208-2             |
| 53338     | Source              | 31208-2             |
| 53339     | Method              | 85069-3             |