# Pregnancy loss analysis

## Genetic testing can provide answers to your patients' hardest question: why?

Chromosomal microarray analysis for pregnancy loss can help you and your patients find a path forward by determining whether a recurrent miscarriage, intrauterine fetal demise (IUFD), or stillbirth was caused by a chromosome abnormality.

Invitae's chromosomal microarray analysis (CMA) for pregnancy loss is DNA-based and delivers results in more than 92.4%[1] of cases in as soon as 10–12 days. No cell culture is required.

### WHY CHOOSE INVITAE

#### Clinical support

- Invitae's team of experienced genetic counselors is available to help answer your questions and provide support every step of the way.
- Your patients can also call Invitae's genetic counselors with quick questions or schedule a full post-test genetic counseling session to better understand their results.

#### Reliable results

- Invitae's microarray analysis for pregnancy loss delivers results in more than 92.4%[1] of cases.

#### Flexible sample options

- In cases where collecting a fresh tissue sample is not an option, Invitae accepts formalin-fixed, paraffin-embedded (FFPE) samples.
- Cell cultures are not required.
- Analysis provides simultaneous detection of maternal cell contamination without a maternal blood sample.

#### Superior coverage

Invitae technology:

- provides clinically-focused, genome-wide coverage
- readily detects triploidy and molar pregnancies
- helps prevent unnecessary testing
- allows for appropriate medical management and recurrence risk counseling

#### Expert interpretation

- Invitae's scientists and laboratory directors have decades of experience in interpreting microarray data and are available to assist you in understanding complex results.

**Approximately one in five clinically recognized pregnancies ends in a loss. Of first-trimester pregnancy losses, more than 50% are due to a fetal chromosomal abnormality.**

## MICROARRAY VS. KARYOTYPING

| | Invitae microarray | Karyotyping |
|---|---|---|
| Percentage of cases where results are obtained | >92.4%[1] | 60–80%[1-3] |
| Cell culture required | No (DNA-based) | Yes (frequent cell culture failure) |
| Can be performed on formalin-fixed, paraffin-embedded (FFPE) samples? | Yes | No |
| Detects submicroscopic gains and losses | Yes | No |
| Detects submicroscopic imbalances and molar pregnancy | Yes | No |
| Detects maternal cell contamination (MCC) | Yes | No |
| Turnaround time | 10–12 days on average | ≥ 2 weeks (if culture is successful) |

## HOW IT WORKS

### Easy ordering

1. Request a free specimen collection kit at **www.invitae.com/contact**.
2. Complete and submit a paper test requisition form (TRF). Find forms at **www.invitae.com/forms**.
3. Receive a comprehensive report of results in as soon as 10–12 days.

## HASSLE-FREE BILLING

### Insurance

Invitae is proud to be **in network for over 250 million patients** and will work directly with your patient's insurance company to coordinate coverage and payment.

### Financial assistance

For patients without adequate coverage through insurance, we offer patient-pay pricing and a financial assistance program.

## HANDS-ON SUPPORT

### For clinicians

Call Clinical Consult at 8**00-436-3037** to review patient cases, learn more about the differences between Invitae's testing options, discuss results, or to get help with ordering and billing.

### For patients

For billing and insurance-related questions, patients can contact Client Services at **clientservices@invitae.com**.

For questions about genetic testing and test results, patients can talk to one of Invitae's genetic counselors by calling 800-436-3037, Monday through Friday, 5:00 am to 5:00 pm Pacific.

For more information visit: **www.invitae.com/clinical-support-services**.

Genetic testing for pregnancy loss is performed at Invitae's laboratory in Irvine, California, previously home to CombiMatrix, which was acquired by Invitae in 2017.

**References:**

1. Sahoo T *et al*. Comprehensive genetic analysis of pregnancy loss by chromosomal microarrays: outcomes, benefits, and challenges. *Genet Med*. 2017;19(1):83-9.
2. Warren JE *et al*. Array comparative genomic hybridization for genetic evaluation of fetal loss between 10 and 20 weeks of gestation. *Obstet Gynecol*. 2009;114(5):1093-102.
3. Ljunger E *et al*. Chromosomal anomalies in first-trimester miscarriages. *Acta Obstet Gynecol Scand*. 2005;84:1103-7.

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