

# Non-invasive prenatal screening



Invitae's high-quality, affordable non-invasive prenatal screening (NIPS) can screen for fetal chromosomal abnormalities as early as 10 weeks, for all singleton and twin pregnancy patients.

Microdeletion and sex chromosome analysis can be added to Invitae NIPS at no additional charge. To give your patients a comprehensive genetic evaluation in early pregnancy, pair NIPS with Invitae carrier screening.

## THE INVITAE ADVANTAGE



### Comprehensive

Testing for all stages of pregnancy, including carrier testing, early pregnancy screening, prenatal diagnosis, and pregnancy loss analysis



### Affordable

Cost shouldn't be a barrier: in network for 270+ million patients; \$99 patient-pay pricing option



### Fast

Results available in just 5–7 days on average



### Hands-on support

Get support from Invitae's team of board-certified genetic counselors and genetics experts

## INVITAE NIPS

Quickly analyzes cell-free DNA (cfDNA) to assess whether a singleton or twin pregnancy is at increased risk for some of the most common chromosomal disorders.

### Trisomies detected:

- **Trisomy 21 (Down syndrome)**  
Sensitivity: 99%  
Specificity: 99%
- **Trisomy 18 (Edwards syndrome)**  
Sensitivity: 97%  
Specificity: 99%
- **Trisomy 13 (Patau syndrome)**  
Sensitivity: 87%  
Specificity: 99%

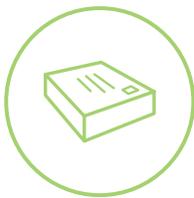
*Based on observed sensitivity and specificities were calculated using available outcome data with the cohort size adjusted for the proportion of positive cases with confirmed outcomes.*

## Invitae's elective add-ons are offered at no additional charge

<b>MICRODELETION ADD-ON (optional)</b> Detect five clinically significant microdeletion regions to screen for syndromes that may be undetectable by ultrasound and other early screening technologies.	<b>SEX CHROMOSOME ADD-ON (optional)</b> Predict fetal sex as early as 10 weeks and simultaneously assess the risk of sex chromosome disorders.
<b>Microdeletions detected:</b> <ul style="list-style-type: none"><li>■ <b>1p36 deletion syndrome</b></li><li>■ <b>DiGeorge syndrome</b> 22q11.2 deletion syndrome</li><li>■ <b>Angelman syndrome/Prader-Willi syndrome</b> 15q11.2 deletion syndrome</li><li>■ <b>Cri du Chat syndrome</b> 5p15.2 deletion syndrome</li><li>■ <b>Wolf-Hirschhorn syndrome</b> 4p16.3 deletion syndrome</li></ul>	<b>Aneuploidies detected:</b> <ul style="list-style-type: none"><li>■ <b>Turner syndrome</b> Monosomy X</li><li>■ <b>Triple X syndrome</b> 47,XXX</li><li>■ <b>Klinefelter syndrome</b> 47,XXY</li><li>■ <b>Jacob's syndrome</b> 47,XYY</li></ul>

For more information visit: [www.invitae.com/NIPS](http://www.invitae.com/NIPS).

## HOW IT WORKS



1. Request free specimen collection kits at [www.invitae.com/request-a-kit](http://www.invitae.com/request-a-kit).



2. Order a test using Invitae's HIPAA-compliant online portal at [www.invitae.com/signin](http://www.invitae.com/signin) or a paper test requisition form available at [www.invitae.com/forms](http://www.invitae.com/forms).



3. Receive email notifications when patient's results are ready (5–7 days on average) or sign up for positive result text message alerts.

## CLEAR, RELIABLE RESULTS

### Lowest failure rate in the industry

- Our technology, which uses whole-genome sequencing, offers the lowest published failure rate in the industry, 0.1%.<sup>1-5</sup>

### Positive predictive value (PPV)

- Every positive report contains a PPV for chromosomes 21, 18, and 13, so you can reliably express the risk of actual trisomy.
- PPV is calculated for each patient using individualized maternal age and gestational age.

### Fetal fraction

- Each result report includes fetal fraction, the percentage of fetal DNA (placental cfDNA) present in the sample. Invitae's technology is optimized to handle samples at the low end of the fetal fraction rate to deliver accurate results.

## STREAMLINED EXPERIENCE

### Invitae's HIPAA-compliant online clinician portal offers:

- immediate result delivery by email and text message
- easy-to-read reports with next step recommendations
- access to your patient's consultation notes from Invitae's genetic counseling services
- auto-release your patient's negative results, so they can easily take advantage of Invitae's interactive patient portal

### Invitae's HIPAA-compliant online patient portal allows your patients to:

- easily view and pay their bill
- receive released results
- access educational resources to help them understand the genetic testing process and their results
- schedule an appointment with one of Invitae's experienced genetic counselors

### Expert genetic counseling services

Invitae's experienced genetic counselors can help to review cases, differentiate between tests, and interpret results, Monday through Friday, 5 am to 5 pm Pacific. Find out more at [www.invitae.com/clinical-support-services](http://www.invitae.com/clinical-support-services). Genetic counselors are also available by appointment to speak with your patients directly. (You can access their consultation notes in your online portal account.)

### Follow-up confirmatory testing with fast turnaround time

Invitae offers prenatal diagnostic testing, enabling you to seamlessly confirm a positive NIPS result. Testing options include karyotype, microarray, and FISH analysis. Learn more at [www.invitae.com/prenatal-diagnosis](http://www.invitae.com/prenatal-diagnosis).

#### References:

1. Taneja PA, Snyder HL, de Feo E *et al.* *Prenat Diagn.* 2016;36(3):237-243.
2. McCullough RM, Almasri EA, Guan X *et al.* *PLoS One.* 2014;9(10):e109173.
3. Ryan A, Hunkapiller N, Banjevic M *et al.* *Fetal Diagn Ther.* 2016;40(3):219-223.
4. Yaron Y. *Prenat Diagn.* 2016;36(5):391-396.
5. Norton ME, Jacobsson B, Swamy GK *et al.* *N Engl J Med.* 2015;372:1589-1597.