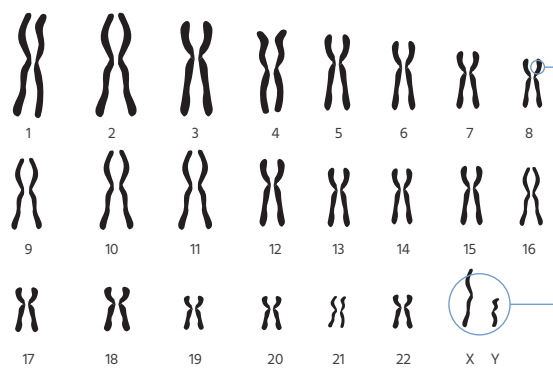
Powered by highly proprietary AI algorithm technology,
G-NIPT makes you offer your patients the best care solution.

3-5 Days
Fast TAT

AI algorithm
Accurate result

Genome-wide scanning

- **Whole Chromosome Aneuploidies** including
  - Trisomy 21
  - Trisomy 18
  - Trisomy 13



Microdeletions

- 1p36
- 2q33.1
- 4p16.3 (Wolf-Hirschhorn)
- 5p15.2 (cri-du-chat)
- 8q deletion (Langer-Giedion)
- 11qter (Jacobsen)
- 22q 11.2 (DiGeorge syndrome)
- 15q.11.2 (Prader-Willi/Angelman)

Fetal Gender (Male or Female) Sex Chromosomes Aneuploidy

- XO (Turner syndrome)
- XXX (Triple X syndrome)
- XXY (Klinefelter syndrome)
- XXY (Jacobs syndrome)

Copy Number Variation reporting

- Reporting CNVs(deletion/duplication) which size is more than **7 Mb**
- Reporting deletion/duplication showing "Sufficient evidence for pathogenicity" in the ClinGenDB curated by the Clinical Genome Resource (ClinGen) consortium in the US.

* The sex chromosome aneuploidy is not reported in the case of twins.
* In the case of twins, the result will tell you the female twin case and whether the Y chromosome is detected or not and cannot determine if one or two of the fetuses are male.

G-NIPT is validated with >99.4% accuracy and 99.07% sensitivity[1]

frontiers | Frontiers in Genetics

Development and performance evaluation of an artificial intelligence algorithm using cell-free DNA fragment distance for non-invasive prenatal testing (aiD-NIPT)

Junnam Lee[1,2†], Sae-Mi Lee[1†], Jin Mo Ahn[1], Tae-Rim Lee[1], Wan Kim[1], Eun-Hae Cho[1*] and Chang-Seok Ki[1*]

[1]Genome Research Center, GC Genome, Yongin, South Korea, [2]Department of Bioinformatics, Soongsil University, Seoul, South Korea

- In this study, we developed a novel NIPT method using cfDNA fragment distance (FD) and convolutional neural network-based artificial intelligence algorithm (aiD-NIPT).
- In an analysis of 17,678 clinical samples, all algorithms showed >99.40% accuracy for T21/T18/T13.

1 Lee J, Lee S-M, Ahn JM, Lee T-R, KimW, Cho E-H and Ki C-S (2022), Development and performance evaluation of an artificial intelligence algorithm using cell-free DNA fragment distance for non-invasive prenatal testing (aiD-NIPT). Front. Genet. 13:999587. doi: 10.3389/fgene.2022.999587

Powered by highly proprietary AI algorithm technology,
G-NIPT makes you offer your patients the best care solution.

G-NIPT
NON INVASIVE PRENATAL TEST

Clinical performance

	Sensitivity	Specificity	NPV	PPV
Trisomy 21	99.73%	99.99%	>99.99%	98.92%
Trisomy 18	99.22%	99.98%	>99.99%	95.49%
Trisomy 13	>99.99%	99.99%	>99.99%	87.50%
Sex chromosome aneuploidy	>99.99%	99.86%	>99.99%	48.65%

Provide 2 options that support the unique needs of your practice

	Lite	Basic	Premium
T21/18/13	V	V	V
Fetal Gender	V	V	V
Sex Chromosome Aneuploidy	×	V	V
T9/16/22	×	×	V
Other Chromosome	×	×	V
Microdeletions	×	×	V
Genome wide CNVs (>7Mb)	×	×	V

Service features

Test	G-NIPT(Lite, Basic, Premium)	**Test Code**	O001, O002, O003
Specimen	WB 10 ml Streck or Roche Tube	**Sample Storage**	Room Temperature
TAT	7 days	**Method**	NGS (Next Generation Sequencing)
Test description	This test is a screening test for chromosome aneuploidies from the fetal DNA present in maternal blood. Down syndrome (trisomy 21), Edward syndrome (trisomy 18), Patau syndrome (trisomy 13), sex chromosome aneuploidy, and microdeletion/microduplication are detected by using next-generation sequencing (NGS).		
Caution & Limitation	• Appropriate for pregnant mothers with gestational week 10~22. • Samples with Maternal cell hemolysis cannot be used for the test. • This test is for screening purpose, it is not a diagnostic test. • NIPT has high sensitivity and specificity, but the possibility of false positive and false negative cannot be eliminated completely.		

GC Genome
Cell Center Bldg 1F, 107, Ihyeon-ro 30beon-gil, Giheung-gu, Yongin-si, Gyeonggi-do, Republic of Korea (16924)
Online : www.gc-genome.com| **Contact** : +82) 31-280-9910

CAP ACCREDITED
COLLEGE of AMERICAN PATHOLOGISTS

G-NIPT-F(Q0)(EN)v1.0-GBU-2023.08.31