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 MD (Pathology & Microbiology)  
 Chairman & Consultant Pathologist

**Dr. Yugam Chopra**  
 MD (Pathology)  
 CEO & Consultant Pathologist

Name	: Mrs.MEENAKSHI SHARMA	Centre Details	: ONCQUEST PANCHKULA
Age	: 37 Yrs      Sex: Female	Accession.ID	: PAN2406260051
Collection Date	: 27/Jun/2024 04:23PM	Referred By	: KOS DIAGNOSTIC LAB
Received Date	: 27/Jun/2024 09:02AM	Report Date	: 06/Jul/2024 03:53PM
Registration Date	: 26/Jun/2024	Ref. No./TRF No.	: /

**DEPARTMENT OF MOLECULAR DIAGNOSTICS-III**

**#NIPT: All Chromosome Test**

**Indication :-**

NIPT screens a maternal blood sample for chromosomal aneuploidy in fetal DNA using the following methodology:

1. Extraction of fetal cell-free DNA from the maternal blood sample
2. High throughput sequencing of the extracted fetal cell-free DNA
3. Calculation of molecular mass of fetal DNA in all chromosomes

Based on the scope, NIPT can screen the following conditions:








- (a) Whole Genome - 23 pairs of human chromosomes
- (b) Common Chromosomal abnormality:

- Trisomy 13 (Patau's Syndrome)
- Trisomy 18 (Edwards' Syndrome)
- Trisomy 21 (Down's Syndrome)

NIPT is capable of genome-wide aneuploidy detection of the whole foetal genome (23 pairs of chromosomes). Test results with the interpretation of risk for Trisomy 13 Trisomy 18, Trisomy 21 and sex chromosome aneuploidies will be provided. This test confers an accuracy of up to **99%** on the detection of foetal chromosomal aneuploidy.

Pregnancy Type	Blood ID	Patient ID
Singleton	NA	NA

**Test Results Summary**

Autosomal Aneuploidies	Risk	Test Results	Aneuploidy Risk
Chromosome 13 		Low risk group	<1/10000
Chromosome 18 		Low risk group	<1/10000
Chromosome 21 		Low risk group	<1/10000
Other Chromosome		Low risk group	

**Test Results for Sex Chromosome Aneuploidies**





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Sex Chromosome Aneuploidies	Risk	Test Results	Aneuploidy Risk
XO	●	Low risk group	<1/10000
XXY	●	Low risk group	<1/10000
XXX	●	Low risk group	<1/10000
XYY	●	Low risk group	<1/10000

⌘ Risk description: ● Low risk group; ● Borderline group; ● High risk group

**Test Results for Other Chromosomal Aneuploidies**

Other Chromosomal Aneuploidies		Risk	Test Results
Chromosome 1		●	Low risk group
Chromosome 2		●	Low risk group
Chromosome 3		●	Low risk group
Chromosome 4		●	Low risk group
Chromosome 5		●	Low risk group
Chromosome 6		●	Low risk group
Chromosome 7		●	Low risk group
Chromosome 8		●	Low risk group
Chromosome 9		●	Low risk group
Chromosome 10		●	Low risk group
Chromosome 11		●	Low risk group
Chromosome 12		●	Low risk group
Chromosome 14		●	Low risk group
Chromosome 15		●	Low risk group
Chromosome 16		●	Low risk group
Chromosome 17		●	Low risk group
Chromosome 19		●	Low risk group
Chromosome 20		●	Low risk group
Chromosome 22		●	Low risk group

⌘ Risk description: ● Low risk group; ● Borderline group; ● High risk group



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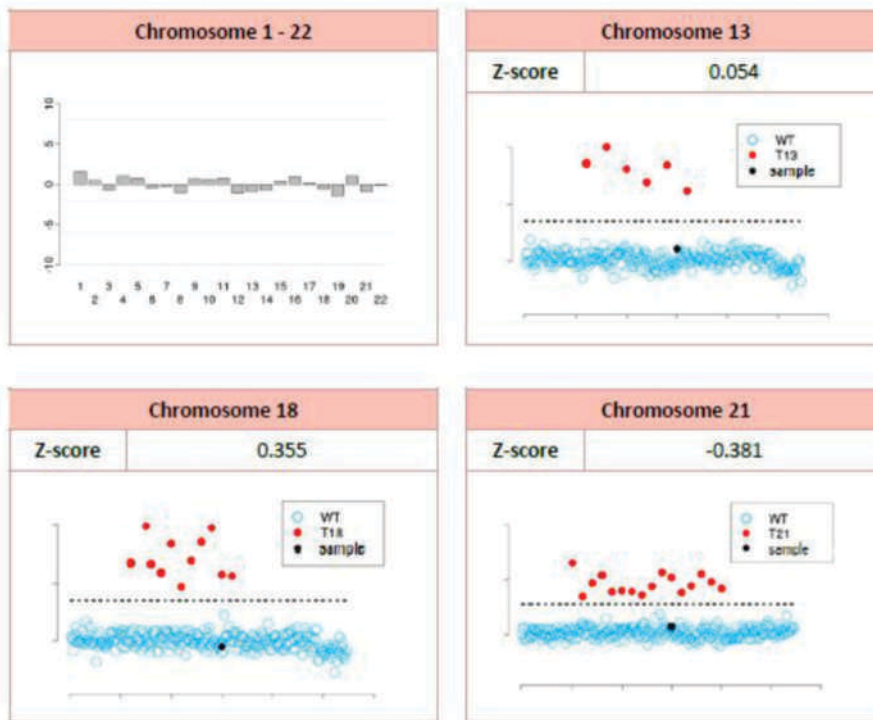
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Sample Information	
Fetal DNA fraction	12.39 %

Note: In rare cases when fetal DNA fraction level is low, new blood sample will be requested for retesting.

**Test Results**



• These images are only for representation purposes.



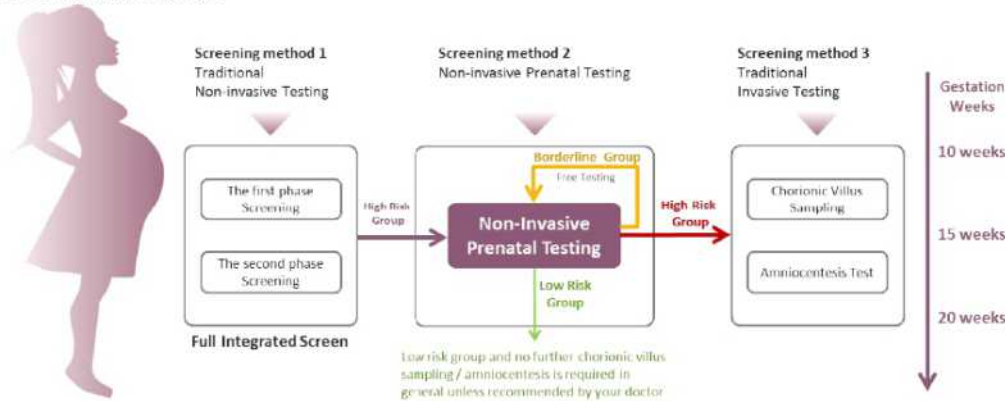
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**Prenatal Examination**



**About the Test**

NIPT analyzes circulating fetal cell-free DNA extracted from a maternal blood sample, and is offered to pregnant women with a pre-test risk of aneuploidy in chromosomes such as 13, 18, 21, X or Y. The chance that a fetus is affected with chromosomal aneuploidy can be estimated using bioinformatics analyses, by which the accuracy rate and sensitivity are over 99%. The accuracy and quality of the test may be affected by low fetal fraction, high data noise due to improper blood sample collection, handling, storage, or transportation.

**Limitations of the test**

Non-invasive prenatal testing should only be considered a screening test. The screening test of fetal cell-free DNA cannot compare with the prenatal diagnosis with Amniocentesis or Chorionic Villus Sampling (CVS). Pregnant women with a positive NIPT screening result should be given an invasive prenatal diagnosis and referred further for genetic counselling to confirm conditions. On the other hand, a negative test result does not ensure an unaffected pregnancy. Even though NIPT provides reliable results, it does not apply to all cases of chromosomal abnormalities, for example, cases due to placental, maternal, or fetal mosaicism, or other causes (e.g. micro-deletions, chromosome re-arrangements, translocation, inversions, unbalanced translocation, uni parental disomy, etc.). NIPT is also not applicable for cases with a diagnosed multiple gestation, or with gestational age that is less than 10 weeks. In rare cases when a borderline screening result is reported, retesting is required to confirm conditions.

**Test Method**

NIPT applies a non-invasive and low-risk procedure to collect fetal DNA samples. Circulating fetal cell-free DNA is purified from the plasma component of 10mL anti-coagulated maternal whole blood. It is then converted into a genomic DNA library for Next Generation Sequencing to determine Trisomy 21, 18 and 13 and other chromosomal abnormalities.

**References**

1. ObstetGynecol 2012; 119:890-901.
2. BMJ 2011; 342:c7401.
3. PrenatDiagn 2012; 32:c7401.





ISO 9001 : 2008 CERTIFIED LAB

## KOS Diagnostic Lab

(A Unit of KOS Healthcare)



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4. ACOG/SMFM Joint Committee Opinion No. 545, Dec 2012.

Note: This test is developed, validated & performed at the third party lab.'

Note: The sex of fetus is not revealed due to PNDT Act.

### \*\*\* End Of Report \*\*\*

- Disclaimer: All Results released pertain to the specimen submitted to the lab
1. Test results are dependent on the quality of the sample received by the lab
  2. Tests are performed as per schedule given in the test listing and in any unforeseen circumstances, report delivery may be delayed
  3. Test results may show interlaboratory variations
  4. All dispute and claims are subjected to local jurisdiction only. Clinical correlation advised.
  5. Test results are not valid for medico legal purposes
  6. For all queries, feedbacks, suggestions, and complaints, please contact customer care support +0124 665 0000

