ISO 9001 : 2008 CERTIFIED LAB

KOS Diagnostic Lab
(A Unit of KOS Healthcare)

KOS™
EXCELLENCE IN HEALTHCARE & DIAGNOSTICS

Dr. Vinay Chopra
MD (Pathology & Microbiology)
Chairman & Consultant Pathologist

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

Gestation Age: 16weeks as per LMP

Patient Id: 11388433	Gender: Female	Center Code: KOS Diagnostic Lab (Ambala Cantt)
Patient Name: Mrs SHILPA SHARMA	Clinician Name: NA	Sample Collected: 2025-02-13
Patient DOB: 1985-10-08	Pregnancy Type: Singleton	Sample Received: 2025-02-14 ,10:14:20
Age: 39	Hospital Name: KOS Diagnostic Lab	Report Released: 2025-02-20,15:46:38

Test Performed:-NIPT- All Chromosome Test

Clinical Indication:

Advised to be screened for NIPT.

TEST RESULTS

***Fetal fraction: 9.61%**

ANEUPLOIDIES	RESULTS	Z-Score	Risk
Down syndrome (Trisomy 21)	Low Risk:Result consistent with two copies of chromosome 21	-0.03	
Edwards syndrome (Trisomy 18)	Low Risk:Result consistent with two copies of chromosome 18	-1.56	
Patau syndrome (Trisomy 13)	Low Risk:Result consistent with two copies of chromosome 13	-0.36	
Sex Chromosomes	Low Risk	0.23	

About this test:

This screening test evaluates whether your pregnancy is at increased risk for certain types of chromosomal disorders. Because this is a screen, false positives and false negatives can occur. The estimated fetal fraction of DNA present in this sample is one component of Redcliffe Lab's non-invasive screening algorithm.

*If the fetal fraction is lower than 3.5%, the accuracy of the test may be reduced. To ensure the accuracy of the results, we would recommend a re-sampling of the maternal blood one or two weeks later.

CLINICAL COMMENTS

This result shows a low risk group for all chromosomes based on the Z score.

EXPECTED TEST RESULTS

NIPT analysis can yield any of the following results:

- Low Risk : The probability that the fetus is affected with the specific chromosomal aneuploidy is low.
- High Risk : The probability that the fetus is affected with the specific chromosomal aneuploidy is high confirmatory testing via amniocentesis/CVS is recommended.
- Borderline: Further confirmatory test recommended (Amniocentesis or other confirmatory tests)
- Inconclusive : Due to unavoidable reasons a result could not be generated on the given maternal sample therefore repeat sampling is advised. Invasive testing is recommended if a NO RESULT is generated again.

Performed by
Rishabh Sharma
Senior Scientific Officer
Clinical-Genomics

Reviewed by
Aayushi Gupta
DBT-HSSC Certified
Genetic Counsellor

Approved by
Dr. Himani Pandey
Postdoc-SGPGIMS Lucknow
Lab Head-Clinical Genomics

NOTE:
This Sample was outsourced

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Patient Name: Mrs SHILPA SHARMA **Patient Id: 11388433**

PRENATAL CHROMOSOMAL ANEUPLOIDY RESULTS FOR OTHER CHROMOSOMES

CHROMOSOME	RISK	Test Results	Z-SCORE	Sensitivity(%)
CHROMOSOME 1	●	Low Risk	-0.94	99.9
CHROMOSOME 2	●	Low Risk	-1.27	99.9
CHROMOSOME 3	●	Low Risk	1.22	99.9
CHROMOSOME 4	●	Low Risk	1.18	99.9
CHROMOSOME 5	●	Low Risk	1.43	99.9
CHROMOSOME 6	●	Low Risk	-1.72	99.9
CHROMOSOME 7	●	Low Risk	1.14	99.9
CHROMOSOME 8	●	Low Risk	-0.84	99.9
CHROMOSOME 9	●	Low Risk	1.13	99.9
CHROMOSOME 10	●	Low Risk	0.81	99.9
CHROMOSOME 11	●	Low Risk	-0.41	99.9
CHROMOSOME 12	●	Low Risk	-0.06	99.9
CHROMOSOME 14	●	Low Risk	-0.23	99.9
CHROMOSOME 15	●	Low Risk	1.27	99.9
CHROMOSOME 16	●	Low Risk	1.10	99.9
CHROMOSOME 17	●	Low Risk	0.44	99.9
CHROMOSOME 19	●	Low Risk	0.21	99.9
CHROMOSOME 20	●	Low Risk	0.75	99.9
CHROMOSOME 22	●	Low Risk	-0.44	99.9

*Risk Description: ●Low Risk Group ●Borderline Group ●High Risk Group

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METHODOLOGY

NIPT is a simple, non-invasive and low-risk method which offers screening of maternal blood sample for genome-wide aneuploidy detection over the whole fetal DNA (23 pairs of chromosomes) and offers an interpretation of the results for Trisomy 13, Trisomy 18, Trisomy 21, sex chromosomes using following methodology.

1.Extraction of cell free fetal DNA from the component plasma of maternal blood sample.

2. High throughput sequencing of the extracted cell free fetal DNA.

3. Calculation of molecular mass of fetal DNA in all chromosomes.

TEST LIMITATIONS

1. The results of this test are for reference only, not for the final diagnosis. Cell-free fetal DNA does not replace the accuracy and precision of prenatal diagnosis with Amniocentesis or Chorionic Villus Sampling (CVS).

2. If the test result is at high risk, genetic counseling and invasive prenatal diagnosis are needed.

3. If the test result is at low risk, the fetus has a low risk of developing the target disease of this screening, hence unaffected pregnancy.However, the possibility of other abnormalities cannot be excluded, and systematic ultrasound examinations and other prenatal examinations should be conducted.

4. The accuracy and quality of the test may be affected by low fetal fraction <3.5%, maternal or fetal mosaicism, or other causes (micro-deletions, chromosome re-arrangements, translocations, inversions, unbalanced translocations, uniparental disomy). The possibility of false positive or false negative cannot be ruled out.

5. The accuracy and quality of the test may be also be affected by high data noise due to improper blood sample collection, handling, storage, or transportation.

6. This test is not applicable for cases with gestational age <10+0 weeks, received allogeneic blood transfusion, A family history of genetic diseases or a high risk of genetic diseases in the fetus, transplantation and allogeneic cell therapy within 1 year or a pregnancy with malignant tumor.

7. The patient must provide complete, accurate and detailed personal information. Redcliffe labs shall not be responsible for the interruption of testing services and inaccurate results caused by inaccurate information or other misleading factors provided by the patient.

8. The test results in this report are only responsible for the samples submitted for inspection.

REFERENCES

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Chiu, R.W., et al., Noninvasive prenatal diagnosis of fetal chromosomal aneuploidy by massively parallel genomic sequencing of DNA in maternal plasma. BMJ. 2011;342:c7401.

Bianchi, D.W., et al., Genome-wide fetal aneuploidy detection by maternal plasma DNA sequencing. Obstetrics & Gynecology, 2012. 119(5): p. 890-901.

Chen, S., et al., A method for noninvasive detection of fetal large deletions/duplications by low coverage massively parallel sequencing. Prenatal Diagnosis, 2013. 33(6): p. 584-590.

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Conditions for Reporting

1. It is presumed that specimen belongs to patient named or identified, such verification being carried out at the point of generation of said specimen.

2. A test might not be performed due to following reasons:
   a. Specimen Quantity not sufficient (Inadequate collection/spillage during transit).
   b. Specimen Quality not acceptable (Hemolysis/clotted/lipemic).
   c. Incorrect sample type.

3. In any of the above case a fresh specimen will be required for testing and reporting.

4. Partial representation of report is not allowed.

5. The reported tests are for the notification of the referring doctor, only to assist him/her in the diagnosis and management of the patient.

6. This report is not valid for Medico Legal Purpose.

7. Applicable Jurisdiction will be of "Delhi" for any dispute/claim concerning the test(s) & results of the test(s).