

Dr. Vinay Chopra  
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Dr. Yugam Chopra  
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CEO & Consultant Pathologist

NAME : Mrs. KANCHAN KUSHWA  
AGE/ GENDER : 24 YRS/FEMALE  
COLLECTED BY :  
REFERRED BY :  
BARCODE NO. : 01515408  
CLIENT CODE. : KOS DIAGNOSTIC LAB  
CLIENT ADDRESS : 6349/1, NICHOLSON ROAD, AMBALA CANTT

PATIENT ID : 1586401  
REG. NO./LAB NO. : 012408210021  
REGISTRATION DATE : 21/Aug/2024 11:07 AM  
COLLECTION DATE : 21/Aug/2024 11:17AM  
REPORTING DATE : 22/Aug/2024 01:44PM

Test Name	Value	Unit	Biological Reference interval
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## ENDOCRINOLOGY

### QUADRUPLE MARKER MATERNAL SCREENING

#### QUADRUPLE MARKER

##### PATEINT SPECIFICATIONS

DATE OF BIRTH	01/01/99		
MATERNAL AGE	26.1	YEARS	
WEIGHT	60	Kg	
ETHNIC ORIGIN	ASIAN		ASIAN
H/O IVF	ABSENT		
H/O INSULIN DEPENDANT DIABETES	ABSENT		
H/O SMOKING	ABSENT		
H/O TRISOMY 21 SCREENING	ABSENT		

##### ULTRA SOUND SCAN DETAILS

DATE OF ULTRASOUND by ULTRASOUND SCAN	19/08/2024		
METHOD FOR GESTATION AGE ESTIMATION by ULTRASOUND SCAN	ULTRASOUND SCAN DETAILS		
FOETUS (NOS) by ULTRASOUND SCAN	1		
GA ON THE DAY OF SAMPLE COLLECTION by ULTRASOUND SCAN	17.1	WEEKS	
BIPARIETAL DIAMETER (BPD) by ULTRASOUND SCAN	35.4	mm	26 - 52

##### QUADRUPLE TEST - BIOCHEMICAL MARKERS

ALPHA FETO PROTEIN (AFP) PRENATAL SCREENING: SERUM by CLIA (CHEMILUMINESCENCE IMMUNOASSAY)	42.1	ng/mL	
ESTRIOL (uE3) UNCONJUGATED by CLIA (CHEMILUMINESCENCE IMMUNOASSAY)	1.37	ng/mL	
BETA HCG by CLIA (CHEMILUMINESCENCE IMMUNOASSAY)	32152	mIU/mL	



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INHIBIN A <i>by CLIA (CHEMILUMINESCENCE IMMUNOASSAY)</i>	158	pg/mL	
<b><u>MULTIPLE OF MEDIAN (MOM) VALUES</u></b>			
AFP MOM <i>by CLIA (CHEMILUMINESCENCE IMMUNOASSAY)</i>	1.03		
ESTRIOL (uE3) MOM <i>by CLIA (CHEMILUMINESCENCE IMMUNOASSAY)</i>	1.03		
BETA HCG MOM <i>by CLIA (CHEMILUMINESCENCE IMMUNOASSAY)</i>	1.12		
INHIBIN A MOM <i>by CLIA (CHEMILUMINESCENCE IMMUNOASSAY)</i>	1.04		
<b><u>TRISOMY 21 SCREENING (DOWNS SYNDROME) RISK ASSESSMENT</u></b>			
TRISOMY 21 SCREENING RISK RESULT <i>by CLIA (CHEMILUMINESCENCE IMMUNOASSAY)</i>	NEGATIVE (-ve)		NEGATIVE (-ve)
TRISOMY 21 AGE RISK <i>by CLIA (CHEMILUMINESCENCE IMMUNOASSAY)</i>	1:1315 NEGATIVE (-ve)		
TRISOMY 21 BIOCHEMICAL RISK <i>by CLIA (CHEMILUMINESCENCE IMMUNOASSAY)</i>	1:7848 NEGATIVE (-ve)		RISK CUT OFF 1:270
<b><u>TRISOMY 18 SCREENING RISK ASSESSMENT</u></b>			
TRISOMY 18 AGE RISK <i>by CLIA (CHEMILUMINESCENCE IMMUNOASSAY)</i>	NEGATIVE (-ve)		
TRISOMY 18 SCREENING RISK <i>by CLIA (CHEMILUMINESCENCE IMMUNOASSAY)</i>	< 1:10000 NEGATIVE (-ve)		RISK CUT OFF 1:100
<b><u>NEURAL TUBE DEFECTS SCREENING RISK ASSESSMENT</u></b>			
NEURAL TUBE DEFECT SCREENING RISK <i>by CLIA (CHEMILUMINESCENCE IMMUNOASSAY)</i>	NEGATIVE (-ve)		RISK CUT OFF 1:50
SPINA BIFIDA/ANENCEPHALY SCREENING RISK <i>by CLIA (CHEMILUMINESCENCE IMMUNOASSAY)</i>	< 1:10000 NEGATIVE (-ve)		RISK CUT OFF 1:50

**INTERPRETATION:**

- Multiple marker serum has become standard tool used in obstetric care to identify pregnancies that may have increased risk for certain birth defects such as NEURAL TUBE DEFECTS (NTD'S), DOWN'S SYNDROME (TRISOMY 21) AND TRISOMY 18. The screen is performed by measuring analytes in maternal serum that are produced by the fetus and the placenta. The analytes values along with maternal demographic information such as age, weight, gestational age, diabetic status, and race are used together in mathematical model to derive risk estimate.
- The laboratory establishes a specific cut off for each condition, which classifies each screen as either screen-positive or screen-negative.
- A screen-positive result indicates that the value obtained exceeds the established cut off.



*[Signature]*

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4. The estimated risk calculation and screen results are dependant on accurate information for gestation, maternal age, race, IDD, and weight. Inaccurate information can lead to significant alterations in the estimated risk. In particular, erroneous assessment of gestational age can result in false-positive or false-negative screen results. Because of its increased accuracy, we therefore recommend determination of gestational age by ultrasound, rather than by last menstrual period (LMP), When possible.

*4. A negative screen indicates a lower probability of having a baby with TRISOMY 21, TRISOMY 18 and NEURAL TUBE DEFECTS, but does not completely exclude the possibility.*

*5. A positive screen on the contrary only indicates a higher probability of having a baby with TRISOMY 21, TRISOMY 18 and NEURAL TUBE DEFECTS, and needs confirmation by cytogenetic studies and/or level II scan.*

**NOTE:**

1. Triplet and higher multiple pregnancies cannot be interpreted
2. The reportable range for Trisomy 21, Trisomy 18 and NTD : >1:50 to < 1:10000
3. TRISOMY 21: HIGH RISK: >1:50 - 1:250
4. TRISOMY 18: HIGH RISK: >1:50 - 1:100
5. NEURAL TUBE DEFECT (NTD'S): HIGH RISK: >1:50
6. Biological markers evaluated in this test have marked as H(HIGH) or L(LOW) since there is wide variation in Alpha Fetoprotein, HCG and Unconjugated Estriol ranges depending upon gestational age. "In Range" and "Out of Range" columns are not applicable for the parameters appearing in Multiple of Median (MoM) and Risk calculation.
7. Individually, Alpha Fetoprotein or HCG or unconjugated Estriol levels do not correlate with risk assessment of Trisomy 18, Trisomy 21 or Neural Tube Defects



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### IMMUNOPATHOLOGY/SEROLOGY

#### ANTI THYROID PEROXIDASE (TPO/AMA) ANTIBODIES

ANTI TPO/AMA ANTIBODIES: SERUM by CLIA (CHEMILUMINESCENCE IMMUNOASSAY)	112.04 <sup>H</sup>	IU/mL	0.00 - 10.0 DIABETES (II): < 25.0
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#### INTERPRETATION:

1. Thyroperoxidase (TPO) is an enzyme involved in thyroid hormone synthesis, catalyzing the oxidation of iodide on tyrosine residues in thyroglobulin for the synthesis of triiodothyronine and thyroxine (tetraiodothyronine).
2. TPO is a membrane-associated hemo glycoprotein expressed only in thyrocytes and is one of the most important thyroid gland antigens.
3. Anti-TPO is technically superior and a more specific method for measuring thyroid auto-antibodies, It is especially useful in patients presenting with subclinical hypothyroidism where TSH is elevated but Free T4 levels are normal.

#### INCREASED LEVELS (Autoimmune thyroid disease):

1. Hashimoto thyroiditis.
2. Idiopathic myxedema.
3. Graves disease
4. Post-partum thyroiditis.
5. Primary hypothyroidism due to Hashimoto thyroiditis.


#### NOTE:

1. The highest TPO antibody levels are observed in patients suffering from Hashimoto thyroiditis. In this disease, the prevalence of TPO antibodies is about 90% of cases, confirming the autoimmune origin of the disease.
2. These auto-antibodies also frequently occur (60%-80%) in the course of Graves disease.
3. In patients with subclinical hypothyroidism, the presence of TPO antibodies is associated with an increased risk of developing overt hypothyroidism.

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



  
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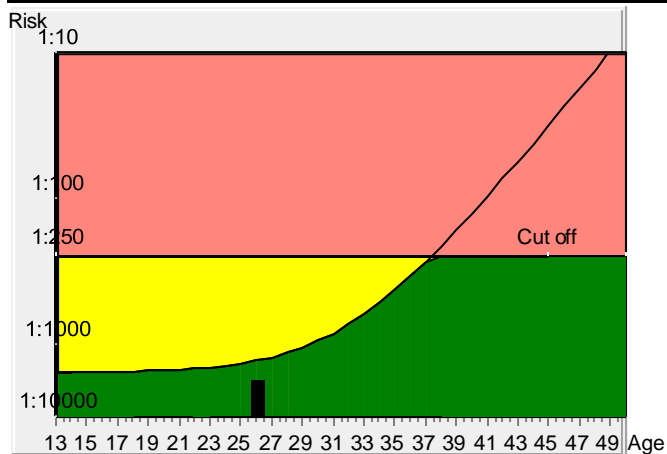
# KOS DIAGNOSTIC LAB 6349/1, NICHOLSON ROAD, AMBALA

## Result Down's syndrome screening

Name	MRS. KANCHAN KUSHWA	Sample ID	2408220807/AMB	diabetes	no
Patient ID		D.O.B.	01/01/99	Fetuses	1
Day of serum taking	21/08/24	Age at delivery	26.1	Smoker	no
Date of report:	22/08/24	Weight [kg]	60 kg	IVF	no
Previous trisomy 21 pregnancies	no			Ethnic origin	Asian

## Corrected MoM's and calculated risks

AFP	42.1	ng/ml	1.03	Corr. MoM	Gestational age at sample date	17 + 1
uE3	1.37	ng/ml	1.03	Corr. MoM	determination method	BPD Hadlock
HCG	32152	mIU/ml	1.12	Corr. MoM	Physician	
Inh-A	158	pg/ml	1.04	Corr. MoM		



**Tr.21 risk**  
at term  
1:7848

**Age risk**  
at term  
1:1315

### Down's Syndrome Risk

**The calculated risk for Trisomy 21 is below the cut off which represents a low risk.**

After the result of the Trisomy 21 test it is expected that among 7848 women with the same data, there is one woman with a trisomy 21 pregnancy and 7847 women with not affected pregnancies.

The calculated risk by PRISCA depends on the accuracy of the information provided by the referring physician.

Please note that risk calculations are statistical approaches and have no diagnostic value!

### Neural tube defects risk

**The corrected MoM AFP (1.03) is located in the low risk area for neural tube defects.**

### Risk for trisomy 18

**The calculated risk for trisomy 18 is < 1:10000, which indicates a low risk.**

below cut off

Below Cut Off, but above Age Risk

above cut off

Prisca 5.2.0.13