

Patient Name : Mrs. LAXMI	Specimen Drawn ON : 09/Oct/2025 10:00AM
Age/Gender : 31 YRS /F	Specimen Received ON : 09/Oct/2025 06:28PM
UHID/MR No : ADEL.0003458262	Report Date : 09/Oct/2025 11:09PM
Barcode No : C6512289	Client Code : DL2977
Ref Doctor : Dr.SELF	Visit ID : MDEL3460839
Ref Customer : SELF	Client Name : JITM SKILLS PVT.LTD.

DEPARTMENT OF MATERNAL MARKER				
Test Name	Result	Unit	Bio. Ref. Range	Method

DOUBLE MARKER(FIRST TRIMESTER SCREENING)

Clinical Details

Birth Day	17/02/1994		Age	
Age At Term	32.2 years			
Maternal Weight	72.0 kg	Kg		
Gestational Age By BPD	-			
Gestational Age By USG	-			
Gestational Age By CRL	12 weeks 3 days			
Scan Date	08/10/2025			
Gestational Age By LMP	-			
LMP Date	-			
Previous trisomy	-			
Pregnancy	Singleton			
Dibetes melitus	No			
Smoking	No			
IVF	No			

Result of Measured val, Risk Val

Mom Papp A	0.47			
Mom HCG	1.17			
Mom Nuchal Translucency	0.59			

Risk Factor

Age Risk at term	1:738			
Trisomy 21 Risk With Nt	~1:5500			
Risk for Trisomy 13/18 (With NT)	~1:99000			

Cut off levels in various disorders and detection rate

ABNORMALITY	CUT OFF	DETECTION RATE	FALSE POSITIVE
TRISOMY-21	1:250	Approximately 85%	5-10%
TRISOMY -13/18	1:100	Approximately 85 %	5-10%

Useful For

Prenatal screening for Down syndrome (nuchal translucency, pregnancy-associated plasma protein A, human chorionic gonadotropin) and trisomy 18 (nuchal translucency, pregnancy-associated plasma protein A, human chorionic gonadotropin).

This report has been validated by:

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CONSULTANT BIOCHEMIST

Anil Gupta
DR. ANIL GUPTA
M.B.B.S., M.D. (PATH)
SR. CONSULTANT PATHOLOGIST
REGD. NO. 5015

Neeru Agarwal
DR. NEERU AGARWAL
M.B.B.S., M.D. (PATH)
LAB HEAD
REGD NO. 21087



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Clinical Information

Multiple marker serum screening has become a standard tool used in obstetric care to identify pregnancies that may have an increased risk for certain birth defects such as Down syndrome and trisomy 18. Second-trimester multiple marker screening has been well established for over a decade. During 2002 through 2006, firsttrimester screening has been established as an alternative option of equal or better performance compared with the best second-trimester screening programs.

The first-trimester screen is performed by measuring analytes in maternal serum that are produced by the fetus and the placenta. Additionally, the nuchal translucency (NT) measurement is a sonographic marker shown to be effective in screening fetuses for Down syndrome. A mathematical model is used to calculate a risk estimate by combining the analyte values, NT measurement, and maternal demographic information. The laboratory establishes a specific cutoff 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 cutoff. A positive screen does not provide a diagnosis, but indicates that further evaluation should be considered.

Serum Analytes

Human chorionic gonadotropin (total/free beta-hCG):

hCG is a glycoprotein consisting of alpha and beta subunits. hCG is synthesized by placental cells starting very early in pregnancy and serves to maintain the corpus luteum and, hence, progesterone production during the first trimester. Thereafter, the concentration of hCG begins to fall as the placenta begins to produce steroid hormones and the role of the corpus luteum in maintaining pregnancy diminishes. Increased total /free hCG levels are associated with an increased risk for Down syndrome.

Pregnancy-associated plasma protein A (PAPP-A):

PAPP-A is a 187 kDA protein comprised of 4 subunits: 2 PAPP-A subunits and 2 pro-major basic protein (proMBP) subunits. PAPP-A is a metalloproteinase that cleaves insulin-like growth factor-binding protein-4 (IGFBP-4), dramatically reducing IGFBP-4 affinity for IGF1 and IGF2, thereby regulating the availability of these growth factors at the tissue level. PAPP-A is highly expressed in first-trimester trophoblasts, participating in regulation of fetal growth. Levels in maternal serum increase throughout pregnancy. Low PAPP-A levels before the 14th week of gestation are associated with an increased risk for Down syndrome and trisomy 18.

Nuchal translucency (NT):

The NT measurement, an ultrasound marker, is obtained by measuring the fluid-filled space within the nuchal region (back of the neck) of the fetus. While fetal NT measurements obtained by ultrasonography increase in normal pregnancies with advancing gestational ag, Down syndrome fetuses have larger NT measurements than gestational age-matched normal fetuses. Increased fetal NT measurements can therefore serve as an indicator of an increased risk for Down syndrome.

Interpretation

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DEPARTMENT OF MATERNAL MARKER

Test Name	Result	Unit	Bio. Ref. Range	Method
Screen-Negative: A screen-negative result indicates that the calculated screen risk is below the established cutoff of 1/250 for Down syndrome and 1/100 for trisomy 18. A negative screen does not guarantee the absence of trisomy 18 or Down syndrome. Screen-negative results typically do not warrant further evaluation.				
Screen-Positive: When a Down syndrome risk cutoff of 1/250 is used for follow-up, the combination of maternal age, pregnancy-associated plasma protein A, human chorionic gonadotropin, and nuchal translucency has an overall detection rate of approximately 85% with a false-positive rate of 5% to 10%. In practice, both the detection rate and false-positive rate increase with age, thus detection and positive rates will vary depending on the age distribution of the screening population.				
Cautions: Upon receiving maternal serum screening results, all information used in the risk calculation should be reviewed for accuracy (eg, maternal date of birth, demographics, sonographic information). If any information is incorrect, the laboratory should be contacted for a recalculation of the estimated risks. This test does not screen for neural tube defects.				
Variables Affecting Marker Levels: <ul style="list-style-type: none"> • All serum marker multiple of medians are adjusted for maternal weight (to account for dilution effects in heavier mothers). The estimated risk calculations and screen results are dependent on accurate information for gestation, maternal age, and weight. Inaccurate information can lead to significant alterations in the estimated risk. • A screen-negative result does not guarantee the absence of fetal defects. A screen-positive result does not provide a diagnosis, but indicates that further diagnostic testing should be considered (an unaffected fetus may have screen-positive result for unknown reasons). In fact, given the low prevalence of Down syndrome, the majority of women with a positive screen will not have a Down syndrome fetus. • In twin pregnancies, the risk for Down syndrome is approximated, using twin-adjusted medians. A specific risk for trisomy 18 cannot be calculated; therefore, results for trisomy 18 are reported as either screen-negative or screen-positive. Risks for triplets and higher multiples cannot be calculated. 				
Note-A positive screen must be followed with triple/quadruple screen, NIPT (non-invasive prenatal testing) or an amniocentesis test along with imaging studies.				

*** End Of Report ***

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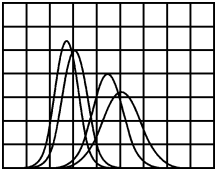
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DUAL MARKER

PATIENT INFORMATION

NAME: Mrs. LAXMI
 PATIENT CODE: C6512289
 DOB: 17/02/1994 (DDMMYYYY)
 LMP:
 PHYSICIAN:

CLINICAL INFORMATION

GESTATIONAL AGE: 12 weeks 3 days from CRL of 59.2 mm on 08/10/2025
 MATERNAL AGE AT TERM: 32.2 years
 MATERNAL WEIGHT: 72.0 kg
 MATERNAL RACE: INDIAN
 MATERNAL HISTORY: IDDM(N), SMOKER(N), RH(N), VPA(U), SSRI(U),
 CBZ(U), IVF(N)
 GESTATION: Singleton
 SCREENING STATUS: Initial sample
 PARA / GRAVIDA: 0 / 1

SPECIMEN

SPECIMEN CODE: NA
 COLLECTION DATE: 09/10/2025

RECEIVED: 09/10/2025
 REFERRING LAB #: NA
 REPORTED: 09/10/2025

CLINICAL RESULTS

Assay	Results	MoM	DOWN SYNDROME		TRISOMY 18/13	
PAPP-A	495.10 ng/mL	0.47	Higher Risk	serum screen	age only	1:10
hCG (T1)	108.3 IU/ml	1.17				1:100
NT	0.9 mm	0.59				1:250
NB:	Present					1:1000
Risk Assessment (at term)			Lower Risk			1:10000
Down Syndrome		~1:5500				
Age alone		1:738				
Equivalent Age Risk		<15.0				
Trisomy 18/13		~1:99000				

Interpretation*

DOWN SYNDROME

Screen Negative

The risk of Down syndrome is LESS than the screening cut-off.

TRISOMY 18/13

Screen Negative

The risk of Trisomy 18/13 is less than the screening cut-off.

Comments:

Accuracy of gestational age is essential for valid interpretation.

Reviewed by: _____