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

LABORATORY REPORT

Name	:Mr. SATISH	Sex/Age	: Male/34 Years	Case ID	:40121600990
Ref By	:	Dis.Loc.	:	Pt ID	:
Bill. Loc.	:KOS DIAGNOSTIC LAB			Pt. Loc.	:
Registration Date & Time	: 10-Jan-2024 09:19	Sample Type	: Heparin Whole Blood - Na	Ph #	:
Sample Date & Time	: 10-Jan-2024 09:19	Sample Coll.By	:	Ref Id	:
Report Date & Time	: 17-Jan-2024 12:16	Acc. Remarks	:	Ref Id 2	:

Chromosome Analysis Report

Clinical History	No clinical history available.
Karyotype (ISCN Nomenclature 2020)	**46,XY**
Interpretation	**Normal Karyotype**

Banding Method	: GTG	**Culture Type**	: 72hrs PHA stimulated
Banding Resolution	: Approx 550	**Metaphases Counted**	: 20
Metaphases Analyzed	: 20	**Metaphase Karyotyped**	: 05
Proliferative Index	: Good	**Quality of Metaphases**	: Good

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Dr. Samarth S. Bhatt
Ph.D,EU Dip in
Mol.Cytogenetics

Printed On :18-Jan-2024 12:14

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NOTE:
This Sample was outsourced

KOS Central Lab: 6349/1, Nicholson Road, Ambala Cantt -133 001, Haryana
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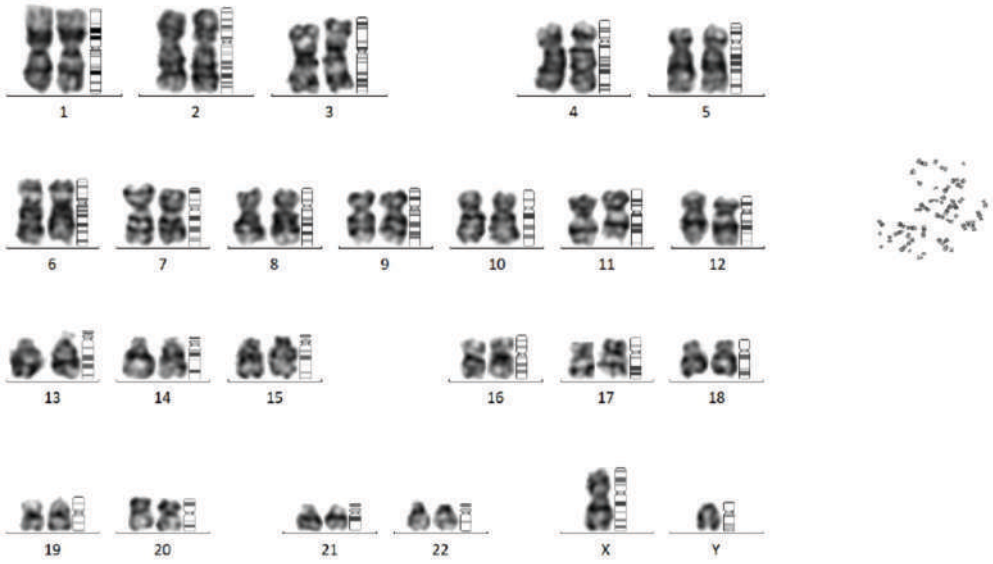
Karyogram and Metaphase



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Limitation

The error rate of the test is 0.5%. The normal report does not rule out very Low grade mosaicism, minor chromosomal anomalies, and deletion, Duplication or Inversion at very subtle level. The report should be interpreted in accordance with the counselling provided before the test and with the report. A standard G-banded Karyotype usually has a resolution of around 5 Mb.

Disclaimer

Polymorphic variants have not been reported as these variants are not associated with specific disease or phenotype. Cytogenetically visible polymorphic variants include variants involving heterochromatin (variant size), satellite size, pericentric inversions (heterochromatic or euchromatic regions) [e.g., 1qh+/qh-, 9qh+/qh-, 16qh+/qh-, acrocentric p+ or p-, Yqh+/qh-, inv(9)(p11q13), inv(2)(p11.2q13)] and also euchromatic variants (e.g., located on 4p16, 8p23.1, 9p12, 9q13-q21.12, 15q11.2, 16p11.2).

Reference: Silva, M., de Leeuw, N., Mann, K., Schuring-Blom, H., Morgan, S., Giardino, D., Rack, K. and Hastings, R., 2019. European guidelines for constitutional cytogenomic analysis. *European Journal of Human Genetics*, *27*(1), pp.1-16.

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Y-CHROMOSOME MICRODELETION BY PCR

Result	NEGATIVE
Interpretation	None of the regions tested were found to be deleted in this module of Y chromosome that is attributed for Azoospermia and Severe Oligospermia.

Test Information

Y-chromosome microdeletions involving some or all of the azoospermic factor (AZF) region are the most frequently identified cause of spermatogenic failure in chromosomally normal men with nonobstructive azoospermia or severe oligospermia. Most cases of Y-chromosome microdeletions occur de novo, and due to the consequential infertile phenotype, they are typically not transmitted. However, in cases where assisted reproductive technology (example: testicular sperm extraction followed by intracytoplasmic sperm injection) is used to achieve viable pregnancy, all male offspring born to a microdeletion carrier will carry the deletion and may be infertile.

Most Y microdeletions are the result of homologous recombination between repeated sequence blocks. Testing for deletions involves investigating for the presence or absence of markers located within nonpolymorphic regions of the AZF region.

Test is performed for the presence of microdeletions in the below mentioned regions of the Y chromosome.

STS	LOCUS	REGION	RESULTS
sY14	SRY	Control	472 bp
sY81	DYS271	AZFa (Start)	209 bp
sY84	DYS273	AZFa	326 bp
sY86	DYS148	AZFa	320 bp

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Dr. Shiva Murarka
Ph.D. Sr. Scientist
(Reproductive Genomics)

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sY121	DYS212	AZFa/b	190 bp
sY124	DYS215	AZFb	109 bp
sY127	DYS218	AZFb	274 bp
sY128	DYS219	AZFb	228 bp
sY130	DYS221	AZFa	173 bp
sY134	DYS224	AZFb	301 bp
sY145	DYS51S1	AZFd	160 bp
sY152	DYS236	AZFd	125 bp
sY153	DYS237	AZFd	139 bp
sY157	DYS240	AZFc	285 bp
sY182	KALY	AZFa	125 bp
sY255	DAZ	AZFc	126 bp
sY254	DAZ	AZFc	350 bp

Limitations

- Diagnostic errors can occur due to rare sequence variations or could be due to the genetic differences between the target and primer sequence. Mutations within individual genes included in the AZF regions will not be detected.
- Breakpoints of identified microdeletions will not be determined. Male infertility due to causes other than Y chromosome microdeletions tested, has not been excluded.
- This assay will not detect all of the causes of infertility or azoospermia. Therefore, the absence of a detectable microdeletion does not rule out the presence of other genetic or nongenetic factors that may be the cause of clinical findings.
- Test results should be interpreted in the context of clinical findings, family history, and other laboratory data. Errors in our interpretation of results may occur if information given is inaccurate or incomplete.

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- Rare polymorphisms exist that could lead to false-negative or false-positive results. If results obtained do not match the clinical findings, additional testing should be considered.
- In rare cases, DNA alterations of undetermined significance may be identified.
- A genetic consultation is recommended for all patients undergoing this testing. Additional consultation with a reproductive endocrinologist/urologist to discuss reproductive options is recommended when a deletion is detected.

---------- End Of Report ----------

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