Patient N	Name : Mr. RAMESH CHANDRA JI	Received on	: 30/07/2024
Age & S	ex : 65 Years / M	Reported on	: 31/07/2024
Ref. Doc	ctor : Dr. BALDEV MEENA MD	Serial No	: 012407300314

Truenat®	MTR									
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Name	MR.F	RAM	ESH CH	HANDRA	JI		ID	01240	07300314	
Age	65	Ger	nder	Male	Ref	erred By	DR.BALDE	V MEENA	MD	
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This report is for the perusal of doctor only. Not for medico legal cases. Clinical correlation is essential. Please contact us in case of unexpected result.

	ent Name : Mr. RAMESH CHANDRA JI & Sex : 65 Years / M		: 30/07/2024 : 31/07/2024	
0	Doctor : Dr. BALDEV MEENA MD	1	: 012407300314	

MOLECULAR BIOLOGY (TRUENAT™MTB RIF TEST)

Specimen: SPUTUM

Final Result:- Rif Resistance not detected

TruenatTM MTB RIF, Mycobacterium Tuberculosis Rifampicin Resistance Test (for diagnosis of MDR TB), is a follow on test conducted on DNA extracts that have shown MTB positive by TruenatTM MTB.

INTERPRETATION:

RESULT	COMMENTS
RIF SENSITIVE	No mutations detected in the target region of <i>rpoB</i> gene. MDR TB unlikely.
RIF RESISTANT	Mutation detected in the target region of <i>rpoB</i> Gene suggesting MDR TB
INTERMEDIATE	No conclusive result

Test Principle:

The *rpoB* gene encodes the β subunit of bacterial <u>RNA</u> polymerase. It is the site of mutations that confer resistance to the <u>rifampicin</u> antibacterial agents, such as <u>rifampin</u>. Mutations in *rpoB* that confer resistance to rifampicin do so by altering residues of the rifampicin binding site on RNA polymerase, thereby reducing binding affinity for rifampicin. Rifampicin resistance is most invariably associated with resistant to isoniazid. Hence, detection of rifampicin resistance is recommended as a reliable proxy for diagnosis of MDR TB.

Pathogen Information:

Tuberculosis (TB) is an infectious disease caused predominantly by the bacillus Mycobacterium tuberculosis. It typically affects the lungs (Pulmonary TB) but can affect other sites as well (Extra pulmonary TB). Pulmonary TB spreads through air and is highly contagious. Over 80% of TB infections are pulmonary and if left untreated, a pulmonary TB patient can infect up to 10-15 other people through close contact over the course of a year.Multidrug-resistant Mycobacterium tuberculosis (MDR-TB) has emerged as a major public health problem worldwide with about 450,000 new cases reported every year.

Target selection:

The target sequence for this test is the RRDR region of the rpoB gene (between codon positions 509 and 533), representing mutation hot spots known to be related to rifampicin resistance.

Method:Real Time PCR (Melt curve analysis)

Note: Assay result should be interpreted only in the context of other laboratory findings and the total clinical status of patient.

PATHOLOGIST

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Age & Sex : 65 Years / M	Received on Reported on Serial No	
	Serial 10	. 01240/300314

Truena	t [®] MTB	RIF									
Center	ARTH D	H DIAGNOSTICS			Operato	r Arth		Bay	1		
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Name	MR.F	RAME	SHCHA	NDRA J	1	10)	012407300314			
Age	65	Genc	ler	Male	Referred E	y DR.BA	LDEV	MEENA	MD		
Result Rif Resistance not detected											
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PATHOLOGIST

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