

JAK- 2(V617F)

Patient ID : NA	Gender : NA	Sample Type : Whole Blood EDTA
Patient Name : NA	Clinician Name : NA	Sample Collected : 2024-05-26
Patient DOB :	Location : NA	Sample Received : 2024-05-27 , 15:17:49.
Age : NA Y	Hospital Name : NA	Report Released : 2024-05-30,17:59:19

Test Performed:-JAK2 V617F Mutation Detection Test

CLINICAL HISTORY

to rule out polycythemia vera

Results

Jak-2 (V617F) : **NEGATIVE (Not Detected)**

CLINICAL SIGNIFICANCE

JAK2 V617F mutations accounts for 90% PV patients and 60% of ET or MF patients. Rare Exon 12 insertion and deletion mutations in JAK2 accounts for 2-3% of PV. For the diagnosis of PV and ET three major criteria are defined of which one is the mutation in exon 12 or 14 (V617F) of JAK2 gene for PV and mutation in either JAK2, CALR or MPL gene for ET.

PV Patients with JAK2 exon 12 mutation have younger age, increased mean hemoglobin/hematocrit, and lower WBC & platelets count at diagnosis compared to those with JAK2 V617F mutation. However both JAK2 mutations are associated with similar rates of thrombosis, evolution to myelofibrosis or leukemia and death.

ET patients with ≤ 60 years and JAK2 mutation are at low risk with no prior history of thrombosis and the patients with history of thrombosis at any age with JAK2 mutation are at high risk. Patients with PMF having JAK2 V617F mutation are at intermediate prognosis and higher risk of thrombosis compared to patients with CALR mutations. Triple negative patients with PMF have inferior leukemia free survival compared to patients with JAK2 and/or CALR mutated and inferior overall survival compared to patients with CALR mutated patients. Kindly correlate clinically.

Recommendation

1. Please correlate clinically, 2. MPN Prognostication & Risk Stratification Panel by NGS

Analyzed & Reviewed by
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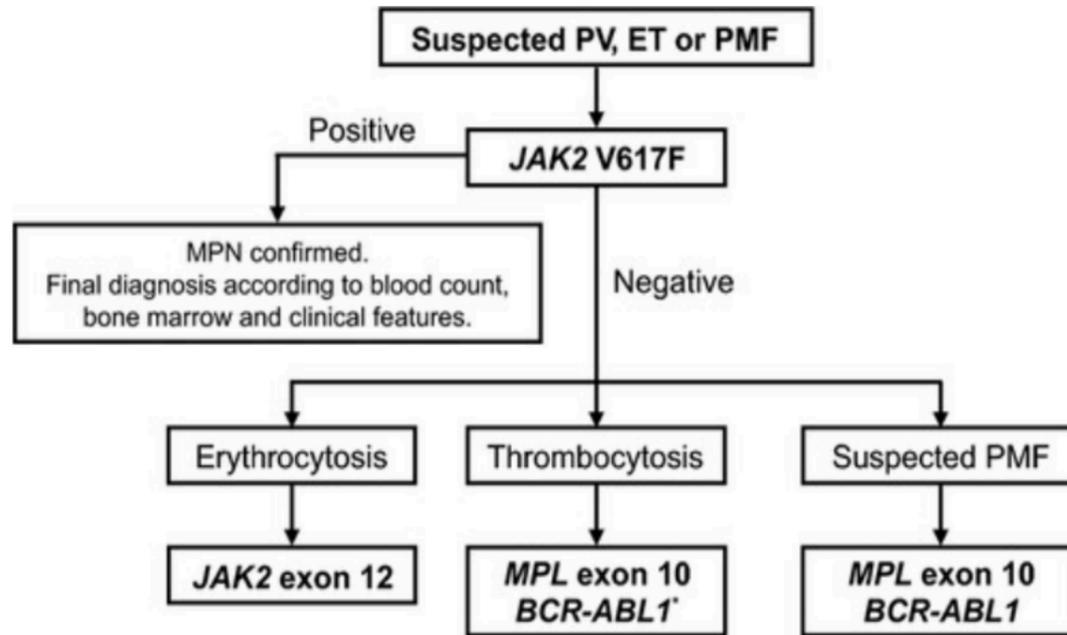
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All Lab are subjected to clinical interpretations by qualified medical professional and this report is not subject to use for any medico-legal purpose.

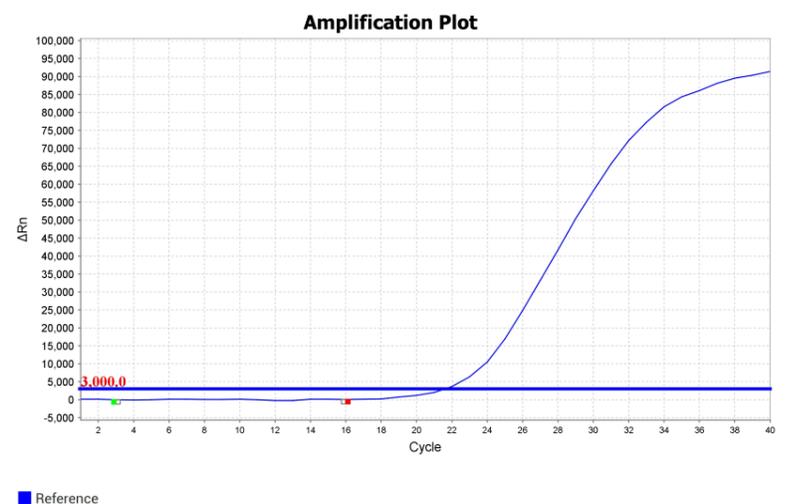
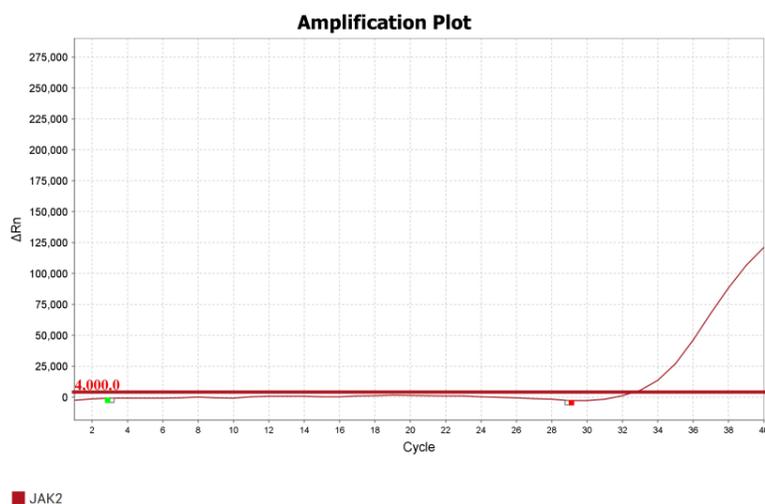
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METHODOLOGY

In the JAK-2 PCR Kit, mutation-specific reactions use ARMS (amplification-refractory mutation system), designs to detect and identify the mutations in JAK-2 (V617F) gene. DNA extracted from Whole blood sample using the purification use silica membrane based extraction method.



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Test Details

Jak-2 Mutation able to detect jak-2(v617F) mutant allele 0.5 % in background of 99.5 % of wild type allele.
This assay detects mutant allele jak-2(v617F).
This assay conducted on whole blood.

Limitation of assay -

- Test results obtained are based on the sample type and depends on the quality of the sample received.
- Test results should be clinically correlated to arrive at a diagnosis and therapy decision.
- PCR is a highly sensitive technique, common reasons for paradoxical results are contamination during specimen collection, selection of inappropriate specimen and inherent PCR inhibitors in the sample.
- Repeats are accepted on request of Referring Physician within 7 days post reporting.
- Test results are not valid for any medico legal purposes.
- Report with status "Preliminary" means one or more test are yet to be reported.

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

DISCLAIMER

- > Test results released pertain to the specimen submitted .
- > All test results are dependent on the quality of the sample received by the Laboratory .
- > Laboratory investigations are only a tool to facilitate in arriving at a diagnosis and should be clinically correlated by the Referring Physician .
- > Certain tests may require further testing at additional cost for derivation of exact value. Kindly submit request within 72 hours post reporting.
- > Test results may show inter laboratory variations.
- > If Sample collection date is not stated on test requisition form, the current date will be printed by default as the date of collection.
- > Test results are not valid for medico legal purposes.



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2. It is to be presumed that the tests performed pertain to the specimen/sample attributed to the Customer's name or identification. It is presumed that the verification particulars have been cleared out by the customer or his/her representation at the point of generation of said specimen / sample. It is hereby clarified that the reports furnished are restricted solely to the given specimen only.
3. It is to be noted that variations in results may occur between different laboratories and over time, even for the same parameter for the same Customer. The assays are performed and conducted in accordance with standard procedures, and the reported outcomes are contingent on the specific individual assay methods and equipment(s) used, as well as the quality of the received specimen.
4. This report shall not be deemed valid or admissible for any medico-legal purposes.
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Disclaimer: Method given in report are only indicative and can be changed depending upon type of machine and kit available at time of testing.

Not all tests at all locations are under NABL scope. Availability of tests under NABL scope varies from lab to lab.