

ABL Kinase Mutation Analysis

Test Name	ABL Kinase Mutation Analysis
Also Known As	Gleevec Resistance
Panel?	No
Related Tests	5179-7; 5265-4; 5268-8;
Clinical Utility and/or Limitations	Imatinib mesylate (Gleevec®) binds to the ABL kinase locus and functions as a competitive inhibitor of the ATP-binding site of BCR/ABL, thereby preventing tyrosine kinase autophosphorylation and activation. Leukemic subclones may develop mutations in the BCR/ABL kinase domain that impair imatinib binding and thereby confer drug resistance. These mutations occur chiefly in the ATP or phosphate-binding loop (P-loop), the T315I area which forms a hydrogen bond with imatinib, the M351T and E355G cluster, and the activation loop (H396R/P). Mutations of T315I are important as they may confer resistance not only to imatinib but to dasatanib and/or nilotinib.
Diagnosis Under Consideration	Gleevec Resistance

Ordering Details

Test Code	6290-1
Turnaround Time	24-48hrs
Preferred Specimen and Volume	EDTA only (Lavender top tube). 2ML Marrow, 5ML blood

Specimen Handling Information

Specimen Storage	Refrigerated
Specimen Transport	Ship specimen on ice pack to keep cool.
Causes For Specimen Rejection	No patient ID on Specimen, Patient ID on specimen and Requisition doesn't match, incorrect fixative (tube/solution), Specimen without GenPath/BioReference requisition. Frozen specimen.
Special Instructions	

Billing Information

CPT Codes	83891 (1), 83900(1), 83901 (4), 83902 (1), 83904(7), 83912 (1)
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Other Information

Notes