



| Procedure                     | Result     | Units | Ref Interval | Accession     | Collected | Received  | Reported/ Verified |
|-------------------------------|------------|-------|--------------|---------------|-----------|-----------|--------------------|
| Ph-Like ALL Panel by FISH     | See Note f |       | [Normal]     | 18-061-900039 | 02-Mar-18 | 02-Mar-18 | 02-Mar-18          |
| EER Ph-Like ALL Panel by FISH | See Note   |       |              | 18-061-900039 | 02-Mar-18 | 02-Mar-18 | 02-Mar-18          |
|                               |            |       |              |               | 09:32:00  | 09:34:00  | 10:44:12           |
|                               |            |       |              |               | 09:32:00  | 09:34:00  | 10:44:12           |

02-Mar-18 09:32:00 Ph-Like ALL Panel by FISH:

Specimen Received  
 Specimen Type: Bone Marrow  
 Reason for Referral: PH-like ALL  
 Test Performed: F PHLK ALL

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 ABNORMAL FISH RESULT

9p24 (JAK2): rearrangement present

NORMAL FISH RESULT

Xp22.33/Yp11.32 (CRLF2): rearrangement not detected  
 1q25.2 (ABL2): rearrangement not detected  
 5q32 (CSF1R): rearrangement not detected  
 5q32 (PDGFRB): rearrangement not detected  
 9q34 (ABL1): rearrangement not detected  
 19p13.2 (EPOR): rearrangement not detected

DIAGNOSTIC IMPRESSION:

Fluorescence in situ hybridization (FISH) analysis was performed using the CRLF2 distal/proximal, ABL2, CSF1R, PDGFRB, ABL1, EPOR (CytoCell) and JAK2 (Metasystems) probes. 200 interphase cells were scored for each probe combination.

This analysis showed evidence of a 9p24 rearrangement involving the JAK2 locus in 95/200 (47.5 percent) cells scored.

FISH analysis with the remaining probes showed normal results with no evidence of rearrangement involving the CRLF2, ABL2, CSF1R, PDGFRB, ABL1, or EPOR.

Rearrangement of JAK2 is a recurrent finding in BCR-ABL1 like B-ALL.

Please correlate this result with other clinical and laboratory findings.

REFERENCES

WHO Classification of Tumours of Haematopoietic and Lymphoid Tissues: International Agency for Research on Cancer, 2017.

ISCN:

nuc ish(CRLF2x2)[200],  
 (ABL2x2)[200],(CSF1Rx2)[200],  
 (PDGFRBx2)[200],(ABL1x2)[200],(JAK2x2)(5'JAK2 sep 3'JAK2x1)[95/200],  
 (EPORx2)[200]

This result has been reviewed and approved by Xinjie Xu, PhD, FACMG  
 Electronic Signature

02-Mar-18 09:32:00 Ph-Like ALL Panel by FISH:  
 INTERPRETIVE INFORMATION: Ph-Like Acute Lymphocytic  
 Leukemia (ALL) Panel by FISH

Test developed and characteristics determined by ARUP Laboratories. See Compliance Statement A: aruplab.com/CS

\* Abnormal, # = Corrected, C = Critical, f = Footnote, H = High, L = Low, t = Interpretive Text, @ = Reference Lab