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**Lab Dept:** Anatomic Pathology

**Test Name:** MULTIPLEX RT PCR FUSION DETECTION IN PH-LIKE B-ALL

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***General Information***

**Lab Order Codes:** MPFA

**Synonyms:** Ph-like B-ALL Full Panel; ABL1 Fusion Multiplex; JAK Fusion Multiplex; Kinase Fusion Multiplex; ALL Fusion; Ph like ALL testing

**CPT Codes:** 81479 x6 – Unlisted Molecular Pathology procedure

**Test Includes:** ABL1 fusion multiplex, JAK fusion multiplex and Kinase fusion multiplex

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***Logistics***

**Test Indications:** Recent studies have identified a subtype of newly diagnosed and relapsed B-progenitor acute lymphoblastic leukemia (B-ALL) children with a Philadelphia chromosome-like (Ph-like or BCR-ABL1-like) gene expression profile similar to Ph+ ALL but specifically lacking a BCR-ABL1 fusion. Fusion partners are confirmed by DNA sequence analysis of the RT-PCR product

**Lab Testing Sections:** Anatomic Pathology - Sendouts

**Referred to:** Nationwide Children's Hospital – ChildLab Cytogenetics/Molecular Genetics

**Phone Numbers:** MIN Lab: 612-813-6280

STP Lab: 651-220-6550

**Test Availability:** Monday - Thursday

**Turnaround Time:** 1-2 weeks

**Special Instructions:** Draw Monday – Thursday so samples can get to ChildLab within 24 hours of collection Monday – Friday due to RNA instability.

[Completed Cytogenetics/Molecular Genetics](#) required. Click on link and go to the bottom of the page to open the Lab Form Link.

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***Specimen***

**Specimen Type:** Whole blood, Bone Marrow also accepted

<b>Container:</b>	Lavender (EDTA) tube
<b>Draw Volume:</b>	4 mL blood
<b>Processed Volume:</b>	Same as Draw Volume
<b>Collection:</b>	Routine venipuncture
<b>Special Processing:</b>	Lab Staff: <b>Do Not</b> process or centrifuge whole blood. Transfer 4 mL EDTA whole blood into conical vial containing 2mL COG ALL shipping media (COG ALL shipping media is strongly preferred in order to preserve the available RNA in the sample). Ship at room temperature via overnight courier. Do not freeze specimens.
<b>Patient Preparation:</b>	None
<b>Sample Rejection:</b>	Frozen specimen; delayed or improper handling; mislabeled or unlabeled specimen

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### ***Interpretive***

<b>Reference Range:</b>	An interpretive report will be provided.  A minimum of 10% blasts is required to report a result within a mixed cell population. A blast percentage of <10% may be reported as unsatisfactory (no results reported)
<b>Critical Values:</b>	N/A
<b>Limitations:</b>	N/A
<b>Methodology:</b>	Reverse transcriptase polymerase chain reaction (RT-PCR)
<b>References:</b>	<a href="#">Nationwide Children's Online Directory</a> January 2016