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**Lab Dept:**                    **Anatomic Pathology**

**Test Name:**                **FISH INTERPHASE**

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***General Information***

**Lab Order Codes:**        FSHIN

**Synonyms:**                Fluorescent in Situ Hybridization

**CPT Codes:**              88275 – Chromosomal in situ hybridization, analyze 100-300 cells  
88271 – Molecular cytogenetics, DNA probe, each  
88291 – Cytogenetics and molecular cytogenetics, interpretation and report  
88237 – Tissue culture for neoplastic disorders; bone marrow, blood cells  
88230 – Tissue culture for non-neoplastic disorders; lymphocyte  
88233 – Tissue culture for non-neoplastic disorders; skin or other solid tissue biopsy

Charges may vary with type of probe, analysis and interpretation required, as determined by the testing laboratory. Each probe ordered will accrue a probe and analysis charge.

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***Logistics***

**Test Indications:**        Detection of common genetic aberrations in patients that are of diagnostic and prognostic significance. Results of this test must always be interpreted in the context of relevant clinical and pathological data and should not be used alone for diagnosis.

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

**Referred to:**              Fairview University of Minnesota Medical Center Cytogenetics  
Reference Lab's Test Code: LAB4736 (aka LAB1401) or FISHCG

**Phone Numbers:**        MIN Lab: 612-813-6280  
STP Lab: 651-220-6550

**Test Availability:**        Daily

**Turnaround Time:**        Results in 29 days

**Special Instructions:** Special tube required. [See Container](#), contact the laboratory for appropriate tube.

Testing laboratory requires the following additional information in the order:

- Family History
- Clinical Indications for Testing
- Probe requested

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## ***Specimen***

**Specimen Type:** Blood, Bone Marrow, Cord Blood, CSF, Fixed Tissue, Products of Conception, Tissue

**Container:**

- **Whole Blood or Cord Blood:** Green top tube (sodium heparin, no gel)
- **Bone Marrow Aspirate:** Heparinized syringe or Green (sodium heparin, no gel) tube
- **CSF:** Sterile, plastic leakproof container
- **Tissue:** Sterile, plastic leakproof container with tissue culture media
- **Paraffin Embedded Slides:** Cut onto positively charged slides.
- **Products of Conception:** Sterile, plastic leakproof container with RPMI media (Alternate to RPMI: sterile saline)

**Draw Volume:**

- **Whole Blood or Cord Blood:** 10 mL (5 mL minimum)
- **Bone Marrow:** 5 mL bone marrow aspirate (3 mL minimum)
- **CSF:** at least 1 mL, more strongly preferred
- **Tissue:** 1 cm<sup>3</sup> (5 mm<sup>3</sup> minimum)
- **Paraffin Embedded Slides:** For each probe ordered, two unstained and one H&E slide on positively charged slides, 4-6 microns thick. Slides should contain two patient identifiers. Must have patient name and one of the following identifiers: date of birth, medical record number, pathology number.
- **Products of Conception:** 35-55 mg of Villi

**Processed Volume:** Same as collection volume

**Collection:** Follow standard procedures

**Special Processing:** Lab Staff: Do **not** centrifuge blood or bone marrow. Store and ship at room temperature. For optimal testing results, the specimen must arrive at reference lab within 24 hours of collection.

**CSF special handling:** Specimen is preferred to be held/transported at refrigerated temperature or made into cytopsin slides. Children's lab must contact the Cytogenetics lab at 612-273-3171 for further instruction on how many slides should be made.

Specimens must be received in the Cytogenetics Laboratory Mon-Fri by 5:30 pm, weekends and holidays by 4:30 pm. Specimens received after these cutoffs will be processed the following day.

Sendouts must follow prompts or manually enter the answers to the required order questions in SmarTerm prior to Atlas entry.

**Patient Preparation:** None

**Sample Rejection:** Improper storage, mislabeled or unlabeled specimen. Clotted or frozen specimen. Incorrect specimen collection tube (anticoagulant). Paraffin embedded slide not on a positively charged slide. No material on the unstained slide. Tissue is cut too thick/thin. Decalcified tissue.

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### ***Interpretive***

**Reference Range:** An interpretive report will be provided

**Critical Values:** N/A

**Limitations:** N/A

**Methodology:** Fluorescent in Situ Hybridization (FISH)

**References:** [MHealth Fairview Diagnostic Laboratories](#) January 2024

**Updates:**  
1/18/2023: Updated test name, reference lab codes, cpt codes and required ordering information  
8/18/2023: Added CSF as acceptable specimen type  
1/12/2024: Clarified CSF processing and transport information.