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**Reporting Title:** Miscellaneous Studies, FISH**Performing Location:** Rochester**Ordering Guidance:**

Consult with the laboratory before ordering this test.

The fluorescence in situ hybridization (FISH) probes to be analyzed must be specified on the request when ordering, otherwise test processing may be delayed in order to determine the intended analysis. If specific probes are not provided, this test may be canceled by the laboratory.

If testing bone marrow or blood samples for specific hematologic malignancies is desired, order HEMMF / Hematologic Specified FISH, Varies. If specific FISH probes for hematologic malignancies are ordered and a bone marrow or blood sample is received, this test will be canceled and automatically reordered by the laboratory as HEMMF / Hematologic Specified FISH, Varies.

**Shipping Instructions:**

Advise Express Mail or equivalent if not on courier service.

**Necessary Information:**

1. A list of probes requested for analysis is required.
2. A reason for testing should be submitted with each specimen. The laboratory will not reject testing if this information is not provided, but appropriate testing and interpretation may be compromised or delayed. If this information is not provided, an appropriate indication for testing may be entered by Mayo Clinic Laboratories.
3. A pathology report may be requested by the laboratory to optimize testing and aid in the interpretation of results. Acceptable pathology reports include working drafts, preliminary pathology, or surgical pathology reports.

**Specimen Requirements:**

Submit only 1 of the following specimens:

Specimen Type: Amniotic fluid

Container/Tube: Amniotic fluid container

Specimen Volume: 20-25 mL

Collection Instructions:

1. Optimal timing for specimen collection is during 14 to 18 weeks of gestation, but specimens collected at other weeks of gestation are also accepted. Provide gestational age at the time of amniocentesis.
2. Discard the first 2 mL of amniotic fluid.

Additional Information:

1. Unavoidably, about 1% to 2% of mailed-in specimens are not viable.
2. Bloody specimens are undesirable.
3. If the specimen does not grow in culture, you will be notified within 7 days of receipt.
4. Results will be reported and telephoned or faxed if requested.

Specimen Type: Blood (only accepted for Congenital/Hereditary [nonhematologic] testing)

Container/Tube:



Preferred: Yellow top (ACD)

Acceptable: Green top (heparin) or lavender top (EDTA)

Specimen Volume: 6 mL

Collection Instructions:

1. Invert several times to mix blood.
2. Send whole blood specimen in original tube. Do not aliquot.
3. Other anticoagulants are not recommended and are harmful to the viability of the cells.

Specimen Type: Chorionic villi (CVS)

Supplies: CVS Media (RPMI) and Small Dish (T095)

Container/Tube: 15-mL tube containing 15 mL of transport media

Specimen Volume: 20 to 25 mg

Collection Instructions:

1. Collect specimen by the transabdominal or transcervical method.
2. Transfer chorionic villi to a Petri dish containing transport medium (eg, CVS media (RPMI)).
3. Using a stereomicroscope and sterile forceps, assess the quality and quantity of the villi and remove any blood clots and maternal decidua.

Specimen Type: Lymph node

Supplies: Hank's Solution (T132)

Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline

Specimen Volume: 1 cm(3)

Specimen Type: Skin biopsy

Supplies: Hank's Solution (T132)

Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline

Specimen Volume: 1-cm(3) biopsy specimen of muscle/fascia from the thigh

Collection Instructions:

1. Wash biopsy site with an antiseptic soap.
2. Thoroughly rinse area with sterile water.
3. Do not use alcohol or iodine preparations.
4. A local anesthetic may be used.
5. Biopsy specimens are best taken by punch biopsy to include full thickness of dermis.

Specimen Type: Tissue

Preferred: Tissue block

Collection Instructions: Submit a formalin-fixed, paraffin-embedded tumor tissue block. Blocks prepared with alternative fixation methods may be acceptable; provide fixation method used.

Additional Information:

1. Paraffin embedded specimens can be from any anatomic location (skin, soft tissue, lymph node, etc).
2. Bone specimens that have been decalcified will be attempted for testing, but the success rate is approximately 50%.

Acceptable: Slides

Collection Instructions: For each probe set ordered, 4 consecutive, unstained, 5 micron-thick sections placed on positively charged slides. Include 1 hematoxylin and eosin-stained slide for the entire test order.

Specimen Type: Tumor

Supplies: Hank's Solution (T132)

Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline

Specimen Volume: 0.5 to 3 cm(3) or larger

**Specimen Minimum Volume:**

Amniotic fluid: 5 mL; Blood: 2 mL; Chorionic villi: 5 mg; Lymph node: 0.5 cm(3); Solid tumor: 0.5 cm(3)

Specimen Type	Temperature	Time	Special Container
Varies	Ambient (preferred)		
	Refrigerated		

**Ask at Order Entry (AOE) Questions:**

Test ID	Question ID	Description	Type	Reportable
MISCF	CG746	Reason for Referral	Plain Text	Yes
MISCF	CG943	Specimen: <ul style="list-style-type: none"><li>• Amniotic Fluid</li><li>• Whole blood ACD</li><li>• Lymph Node</li><li>• Skin Biopsy</li><li>• Solid Tumor</li><li>• Tissue</li></ul>	Answer List	Yes

**Result Codes:**

Result ID	Reporting Name	Type	Unit	LOINC®
52163	Result Summary	Alphanumeric		50397-9
52165	Interpretation	Alphanumeric		69965-2
52164	Result Table	Alphanumeric		93356-4
54586	Result	Alphanumeric		62356-1
CG746	Reason for Referral	Alphanumeric		42349-1
CG943	Specimen	Alphanumeric		31208-2
52167	Source	Alphanumeric		31208-2
52168	Tissue ID	Alphanumeric		80398-1
52169	Method	Alphanumeric		85069-3
55028	Additional Information	Alphanumeric		48767-8
53829	Disclaimer	Alphanumeric		62364-5



Result ID	Reporting Name	Type	Unit	LOINC®
52170	Released By	Alphanumeric		18771-6

LOINC and CPT codes are provided by the performing laboratory.

**Supplemental Report:**

No

**CPT Code Information:**

88271x2, 88291-DNA probe, each (first probe set), Interpretation and report  
88271x2-DNA probe, each; each additional probe set (if appropriate)  
88271x1-DNA probe, each; coverage for sets containing 3 probes (if appropriate)  
88271x2-DNA probe, each; coverage for sets containing 4 probes (if appropriate)  
88271x3-DNA probe, each; coverage for sets containing 5 probes (if appropriate)  
88273 w/modifier 52-Chromosomal in situ hybridization, less than 10 cells (if appropriate)  
88273-Chromosomal in situ hybridization, 10-30 cells (if appropriate)  
88274 w/modifier 52-Interphase in situ hybridization, <25 cells, each probe set (if appropriate)  
88274-Interphase in situ hybridization, 25 to 99 cells, each probe set (if appropriate)  
88275-Interphase in situ hybridization, 100 to 300 cells, each probe set (if appropriate)

**Reflex Tests:**

Test ID	Reporting Name	CPT Units	CPT Code	Always Performed	Orderable Separately
_PBCT	Probe, +2			No	No (Bill Only)
_PADD	Probe, +1			No	No (Bill Only)
_PB02	Probe, +2			No	No (Bill Only)
_PB03	Probe, +3			No	No (Bill Only)
_ML10	Metaphases, 1-9			No	No (Bill Only)
_M30	Metaphases, >=10			No	No (Bill Only)
_IL25	Interphases,			No	No (Bill Only)



Test ID	Reporting Name	CPT Units	CPT Code	Always Performed	Orderable Separately
_I099	Interphases, 25-99			No	No (Bill Only)
_I300	Interphases, >=100			No	No (Bill Only)

**Reference Values:**

An interpretive report will be provided.