

Overview

Useful For

Reserving nucleic acids on any specimen for which molecular analysis requiring DNA or RNA may be necessary at a future date, ensuring that adequate material for testing is available

Testing Algorithm

DNA and RNA will be extracted from the specimen and stored at -80 degrees Celsius for one year from the date the extraction process was performed. A report of "Performed" will be sent and a \$75.00 processing fee will be assessed. To request molecular testing from the Molecular Hematopathology Laboratory's test menu, call 800-533-1710. Additional charges will be assessed for testing performed.

For more information see [Eosinophilia: Bone Marrow Diagnostic Algorithm](#).

Special Instructions

- [Hematopathology Patient Information](#)

Method Name

Nucleic Acid Extraction

NY State Available

Yes

Specimen

Specimen Type

Varies

Shipping Instructions

Refrigerate specimens must arrive within 5 days of collection, and ambient specimens must arrive with 3 days (72 hours) of collection. Collect and package specimens as close to shipping time as possible.

Specimen Required

Submit only 1 of the following specimens:

Specimen Type: Blood

Container/Tube:

Preferred: Lavender top (EDTA)

Acceptable: Yellow top (ACD)

Specimen Volume: 10 mL

Collection Instructions:

- 1. Invert several times to mix blood.
- 2. Send whole blood specimen in original tube. **Do not aliquot.**
- 3. Label specimen as blood.

Specimen Type: Bone marrow

Container/Tube:

Preferred: Lavender top (EDTA)

Acceptable: Yellow top (ACD)

Specimen Volume: 4 mL

Collection Instructions:

- 1. Invert several times to mix bone marrow.
- 2. Send bone marrow specimen in original tube. **Do not aliquot.**
- 3. Label specimen as bone marrow.

Forms

- 1. [Hematopathology Patient Information](#) (T676)
- 2. If not ordering electronically, complete, print, and send a [Hematopathology/Cytogenetics Test Request](#) (T726) with the specimen.

Specimen Minimum Volume

- Blood: 8 mL
- Bone Marrow: 2 mL

Reject Due To

Gross hemolysis	Reject
Paraffin-embedded material Fluids Heparinized samples	Reject

Specimen Stability Information

Specimen Type	Temperature	Time	Special Container
Varies	Refrigerated (preferred)	5 days	PURPLE OR PINK TOP/EDTA
	Ambient	72 hours	PURPLE OR PINK TOP/EDTA

Clinical & Interpretive

Clinical Information

It is frequently useful to obtain nucleic acids from clinical samples containing a hematopoietic neoplasm at the time of diagnosis so appropriate material is available for molecular analysis should subsequent testing be required. For example, when a diagnosis of acute myelogenous leukemia is made, there is a delay before karyotype information, which determines whether testing for molecular prognostic markers is necessary, is available. After this delay, the diagnostic sample is usually no longer available or the nucleic acid has degraded to such an extent that it is no longer adequate for testing. Thus, it is useful to obtain nucleic acids on such specimens promptly at diagnosis and retain it until it is known whether additional testing is necessary.

Reference Values

Not applicable

Interpretation

A report of "Performed" will be sent and a \$75 processing fee will be assessed. No interpretation will be given. Should the sample be used in future testing, interpretation would be incorporated with the final testing.

Cautions

DNA/RNA will be held at -80 degrees Celsius for one year from the time of extraction. The nucleic acids may only be used for suitable tests offered by the Molecular Hematopathology Laboratory at Mayo Clinic. Nucleic acid samples cannot be shipped to another institution for testing and cannot be released for research use.

Only liquid blood specimens will be processed. Paraffin-embedded material and fresh, solid tissue will not be accepted at this time.

Performance

Method Description

DNA and RNA are extracted using automated systems. Both systems include a sample lysis step followed by binding of nucleic acid to a solid phase for separation from other cellular components and a final nucleic acid elution step.

PDF Report

No

Day(s) Performed

Monday through Saturday

Report Available

5 days

Specimen Retention Time

Blood/Bone marrow: 2 weeks; Extracted DNA and RNA: 1 year

Performing Laboratory Location

Mayo Clinic Laboratories - Rochester Main Campus

Fees & Codes

Fees

- Authorized users can sign in to [Test Prices](#) for detailed fee information.
- Clients without access to Test Prices can contact [Customer Service](#) 24 hours a day, seven days a week.
- Prospective clients should contact their account representative. For assistance, contact [Customer Service](#).

Test Classification

Not Applicable

LOINC® Information

Test ID	Test Order Name	Order LOINC® Value
EXHR	DNA and RNA Extract and Hold	No LOINC Needed

Result ID	Test Result Name	Result LOINC® Value
MP035	Specimen Type	31208-2
41938	DNA/RNA Extract and Hold Result	No LOINC Needed
41937	DNA/RNA Extraction	No LOINC Needed