MAYO CLINIC LABORATORIES

Test Definition: HOLDC

Hematologic Disorders, Chromosome Hold, Varies

Overview

Useful For

Holding the bone marrow or peripheral blood specimen in the laboratory but delaying chromosome analysis while preliminary morphologic assessment is in process

Reflex Tests

Test Id	Reporting Name	Available Separately	Always Performed
CHRBM	Chromosomes, Hematologic, BM	Yes	No
CHRHB	Chromosomes, Hematologic, Blood	Yes	No
_ML20	Metaphases, 1-19	No, (Bill Only)	No
_M25	Metaphases, 20-25	No, (Bill Only)	No
_MG25	Metaphases, >25	No, (Bill Only)	No
_STAC	Ag-Nor/CBL Stain	No, (Bill Only)	No

Testing Algorithm

This test is designed to hold the specimen but delay chromosome preparation and analysis while preliminary morphologic assessment is in process.

Upon specimen receipt, the specimen will be held in the laboratory. Chromosome analysis will be performed unless the test is canceled (see **Hold policy**).

If the client notifies the laboratory that chromosome analysis is not necessary, this test will be reported as "Canceled." Chromosome analysis will not be performed but a processing fee will be charged.

If the client does not notify the laboratory that chromosome analysis is not needed (see **Hold policy),** this test will be reported as "Reflexed," and chromosome analysis will be performed. Depending on the specimen received, the appropriate reflex test will be performed. No processing fee will be assessed for this test as culture charges are included in the reflexed test.

Hold policy: The client **must** contact the Cytogenetics Laboratory at 800-533-1710 by 3 p.m. (Central time) no later than 2 business days after the specimen was collected to notify the lab **not** to proceed with chromosome analysis. If no notification is received by this time, chromosome analysis will be performed and charged. Weekend communication can be deferred until Monday.

Method Name

Direct Preparation of Specimen

NY State Available

Yes

Specimen

Specimen Type
Varies

Ordering Guidance
This test does not apply to any fluorescence in situ hybridization (FISH) assays. If specimen is to be held for FISH testing, order HOLDF / Hematologic Disorders, Fluorescence In Situ Hybridization (FISH) Hold, Varies.

For plasma cell proliferative disorders such as multiple myeloma, fluorescence in situ hybridization (FISH) studies will detect chromosome anomalies with prognostic significance much more often than conventional chromosome studies. The recommended test in this situation is PCPDS / Plasma Cell Proliferative Disorder, High-Risk with Reflex Probes, Diagnostic FISH Evaluation, Bone Marrow. Due to limited clinical utility, chromosome analysis is **not recommended** for plasma cell neoplasms.(1)

Shipping Instructions
Advise Express Mail or equivalent if not sent via courier service.

Necessary Information
Provide a reason for testing and bone marrow pathology report (if available) 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.

Specimen Required
Submit only 1 of the following specimens:

Preferred:
Specimen Type: Bone marrow
Container/Tube:
Preferred: Yellow top (ACD)
Acceptable: Green top (sodium heparin), lavender top (EDTA)
Specimen Volume: 1 to 2 mL
Collection Instructions: Invert several times to mix bone marrow.

Acceptable:
Specimen Type: Blood
Container/Tube:
Preferred: Yellow top (ACD)
Acceptable: Green top (sodium heparin), lavender top (EDTA)
Specimen Volume: 6 mL

Collection Instructions: Invert several times to mix blood.

Forms
If not ordering electronically, complete, print, and send a Hematopathology/Cytogenetics Test Request (T726) with the specimen.

Specimen Minimum Volume
Blood: 2 mL
Bone marrow: 1 mL

Reject Due To
All specimens will be evaluated at Mayo Clinic Laboratories for test suitability.

Specimen Stability Information

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

Clinical & Interpretive

Clinical Information
Conventional chromosome analysis is the gold standard for identification of the common, recurrent chromosome abnormalities for most hematologic malignancies. Based on morphologic review of the bone marrow or peripheral blood specimen by a hematopathologist, a determination of additional appropriate testing can be made. If the specimen does not show evidence of malignancy, chromosome analysis may not be necessary. Depending on the diagnosis, fluorescence in situ hybridization assays may also be more informative.

Reference Values
Not applicable

Interpretation
If notified by the client, this test may be canceled, and a processing fee assessed.

If no notification to cancel testing is received, this test will be reported as "reflexed for chromosome analysis" and depending on the specimen received, CHRBM / Chromosome Analysis, Hematologic Disorders, Bone Marrow or CHRHB / Chromosome Analysis, Hematologic Disorders, Blood will be performed, and an interpretive report provided.

Cautions
No significant cautionary statements

Clinical Reference
1. Mellors PW, Binder M, Ketterling RH, et al. Metaphase cytogenetics and plasma cell proliferation index for risk stratification in newly diagnosed multiple myeloma. Blood Adv. 2020;4(10):2236-2244

Performance

Method Description
The specimen will be held in the laboratory while preliminary morphologic assessment is in process to determine if chromosome analysis is appropriate. If needed, cell culture and chromosome analysis will be performed.

PDF Report
No

Day(s) Performed
Monday through Sunday

Report Available
7 to 10 days

Specimen Retention Time
4 weeks

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

CPT Code Information
See Individual Components

LOINC® Information

Test ID	Test Order Name	Order LOINC® Value
HOLDC	Heme Chromosome Hold, B/BM	No LOINC Needed

Result ID	Test Result Name	Result LOINC® Value
52290	Result Summary	50397-9
52292	Interpretation	69965-2

CG763	Reason for Referral	42349-1
CG764	Specimen	31208-2
52293	Source	31208-2
55267	Requested FISH Test	48767-8
52295	Method	85069-3
54639	Additional Information	48767-8
52296	Released by	18771-6