

Myelodysplastic Syndrome (MDS), Diagnostic FISH, Varies

Test ID: MDSDF

Useful for:

Detecting a neoplastic clone associated with the common chromosome abnormalities seen in patients with myelodysplastic syndromes or other myeloid malignancies using a laboratory-designated probe set algorithm

Evaluating specimens in which standard cytogenetic analysis is unsuccessful

Testing Algorithm:

This test includes a charge for the probe application, analysis, and professional interpretation of results for 6 probe sets (12 individual fluorescence in situ hybridization probes). Additional charges will be incurred for all reflex or additional probe sets performed.

Panel includes testing for the following abnormalities using the probes listed:

inv(3) or t(3;3), RPN1/MECOM

-5/5q-, D5S630/EGR1

-7/7q-, D7S486/D7Z1

+8, D8Z2/MYC

17p-, TP53/D17Z1

-20/20q-, D20S108/20qter

In the absence of RPN1/MECOM fusion, when an extra MECOM signal is identified, reflex testing using the MECOM/RUNX1 probe set will be performed to identify a potential t(3;21)(q26.2;q22) rearrangement.

In the absence of RPN1/MECOM fusion, when an extra RPN1 signal is identified, reflex testing using the PRDM16/RPN1 probe set will be performed to identify a potential t(1;3)(p36;q21).

Reflex Tests:

Test ID	Reporting Name	Available Separately	Always Performed
MDSDB	Probe, Each Additional (MDSDF)	No (Bill Only)	No

Methods:

Fluorescence In Situ Hybridization (FISH)

Reference Values:

An interpretive report will be provided.

Specimen Requirements:

Preferred Specimen Type: Bone marrow

Preferred Container/Tube: Yellow top (ACD)

Acceptable Container/Tube: Green top (heparin) or lavender top (EDTA)

Specimen Volume: 2-3 mL

Minimum Volume: 1 mL

Collection Instructions:

1. It is preferable to send the first aspirate from the bone marrow collection.
2. Invert several times to mix bone marrow.

Acceptable Specimen Type: Blood

Preferred Container/Tube: Yellow top (ACD)

Acceptable Container/Tube: Green top (heparin) or lavender top (EDTA)

Specimen Volume: 6 mL

Minimum Volume: 2 mL

Collection Instructions:

1. Invert several times to mix blood.

Note:

1. 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.
2. A pathology and/or flow cytometry report may be requested, if not received, by the laboratory to optimize testing and aid in interpretation of results.

Specimen Stability Information:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

Cautions:

This test is not approved by the US Food and Drug Administration, and it is best used as an adjunct to existing clinical and pathologic information.

Bone marrow is the preferred specimen type for this fluorescence in situ hybridization test. If bone marrow is not available, a blood specimen may be used if there are neoplastic cells in the blood specimen (as verified by a hematopathologist).

CPT Code:

88271 x12, 88275 x6, 88291 x1- FISH Probe, Analysis, Interpretation; 6 probe sets

88271 x2, 88275 x1 – FISH Probe, Analysis; each additional probe set (if appropriate)

Day(s) Performed: Monday through Friday **Report Available:** 7 to 10 days

Questions

Contact Joshua Couchene Laboratory Resource Coordinator at 800-533-1710.