



Test Catalog

Diagnostic. Prognostic. Predictive. Predisposition.



NUP98

Alternative Name

Nucleoporin 98

Methodology

FISH

Test Description

Disease(s): Acute Myeloid Leukemia

Probes: NUP98 (11p15.4)

Clinical Significance

Fusions of the nucleoporin 98 (NUP98) gene with more than 30 partner genes are noted in a variety of hematologic malignancies including AML, MDS, and T-ALL. Recurring NUP98 fusions, such as NUP98-NSD1, NUP98-JARID1A, and NUP98-HOXA9, have been reported in pediatric and adult cytogenetically normal AML (CN-AML) and some have been associated with poor prognosis. Detection of NUP98 rearrangement may be useful to further classify prognostic risk in AML and guide therapy selection. Screening for NUP98 rearrangement in pediatric AML patients at the time of diagnosis has been suggested. This NUP98 break-apart FISH test is designed to detect NUP98 rearrangements with potentially any known or novel translocation partner.

Specimen Requirements

- **Bone Marrow Aspirate:** 1-2 mL sodium heparin tube. EDTA tube is acceptable.
- **Peripheral Blood:** 2-5 mL sodium heparin tube. EDTA tube is acceptable.
- **Fresh, Unfixed Tissue:** Tissue in RPMI.
- **Fluids:** Equal parts RPMI to specimen volume.
- **Paraffin Block or Cut Slides:** Not available.
- **Note:** Please exclude biopsy needles, blades, and other foreign objects from transport tubes. These can compromise specimen viability and yield, and create hazards for employees.

Storage & Transportation

Refrigerate specimen. Do not freeze. Use cold pack for transport, making sure cold pack is not in direct contact with specimen. For fresh samples: ship same day as drawn whenever possible; specimens <72 hours old preferred.

CPT Code(s)*

88377x1 manual or 88374x1 automated

New York Approved

Yes

Level of Service

Technical, Global

Turnaround Time

3-5 days

References

1. Ostronoff F, Othus M, Gerbing RB, et al. NUP98/NSD1 and FLT3/ITD coexpression is more prevalent in younger AML patients and leads to induction failure: a COG and SWOG report. *Blood*. 2014;124(15):2400-2407.
2. Hollink I, van den Heuvel-Eibrink M, Arentsen-Peters S, et al. NUP98/NSD1 characterizes a novel poor prognostic group in acute myeloid leukemia with a distinct HOX gene expression pattern. *Blood*. 2017;118(13):3645-3656.
3. Romana SP, Radford-Weiss I, Ben Abdelali R, et al. NUP98 rearrangements in hematopoietic malignancies: a study of the Groupe Francophone de Cytogenetique Hematologique. *Leukemia*. 2006;20:696-706.

*The CPT codes provided with our test descriptions are based on AMA guidelines and are for informational purposes only. Correct CPT coding is the sole responsibility of the billing party.

Please direct any questions regarding coding to the payor being billed.

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9490 NeoGenomics Way
Fort Myers, FL 33912
Phone: 239.768.0600/ Fax: 239.690.4237
neogenomics.com
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