











TESTING FOR HEMATOLOGIC MALIGNANCIES

Mayo Clinic Laboratories has a wide range of testing for a variety of hematologic malignancies. Our expertise in lymphoid neoplasms, myeloid neoplasms, and multiple myeloma allows clinicians to provide actionable answers and develop effective treatment plans for patients.

LYMPHOID NEOPLASMS[†]

Mayo ID	Test name	Genes	Disease states
 NGCLN [‡]	MayoComplete Chronic Lymphoid Neoplasms, Next-Generation Sequencing, Varies	<i>ATM, BCL2, BIRC3, BRAF, BTG1, BTK, CCND1, CDKN2A, CXCR4, DDX3X, EZH2, FBXW7, KLF2, KRAS, MAP2K1, MYD88, NOTCH1, NOTCH2, NRAS, PIK3CA, PLCG2, SF3B1, TNFAIP3, TP53, XPO1</i>	<ul style="list-style-type: none"> Chronic lymphocytic leukemia (CLL)/small lymphocytic lymphoma (SLL) Follicular lymphoma (FL) Lymphoplasmacytic lymphoma (LPL) Waldenstrom macroglobulinemia (WM) Hairy cell leukemia (HCL) Marginal zone lymphoma (MZL) Mantle cell lymphomas (MCL)
 NGBCL [‡]	MayoComplete B-Cell Lymphoma, Next-Generation Sequencing, Varies	<i>ARAF, ARID1A, ATM, B2M, BCL2, BIRC3, BRAF, BTG1, BTK, CARD11, CCND1, CCND3, CD79A, CD79B, CDKN2A, CREBBP, CSF1R, CXCR4, DDX3X, EP300, EZH2, FBXW7, FOXO1, ID3, KLF2, KMT2D, KRAS, MAP2K1, MEF2B, MYD88, NOTCH1, NOTCH2, NRAS, NSD2, PIK3CA, PIM1, PLCG2, PRDM1, PTEN, SF3B1, STAT6, TCF3, TNFAIP3, TNFRSF14, TP53, XPO1</i>	<ul style="list-style-type: none"> Diffuse large B-cell lymphoma (DLBCL) Double-hit or triple-hit lymphoma (DHL/THL) Burkitt lymphoma (BL) Mantle cell lymphomas (MCL) Low-grade B-cell lymphomas
 NGTCL [‡]	MayoComplete T-Cell Lymphoma, Next-Generation Sequencing, Varies	<i>ARID1B, CCR4, CXCR4, DDX3X, DNMT3A, EZH2, FYN, IDH1, IDH2, JAK1, JAK3, KMT2D, KRAS, MSC, NOTCH1, NRAS, PLCG1, RHOA, STAT3, STAT5B, TET2, TP53</i>	<ul style="list-style-type: none"> Mature T-cell and NK-cell neoplasms T-large granular lymphocytic leukemia Adult T-cell leukemia/lymphoma Angioimmunoblastic T-cell lymphoma T-follicular helper cell lymphoma Anaplastic large cell lymphoma Peripheral T-cell lymphomas not otherwise specified Extranodal T-cell lymphomas
 NGHIS [‡]	MayoComplete Histiocytic Neoplasms, Next-Generation Sequencing, Varies	<i>ARAF, BRAF, CSF1R, KRAS, MAP2K1, NRAS, PIK3CA, PTEN</i>	<ul style="list-style-type: none"> Histiocytic neoplasms, including Rosai-Dorfman disease, Langerhans cell histiocytosis, Erdheim-Chester disease, histiocytic sarcoma, and juvenile xanthogranuloma
 NGPCM [‡]	MayoComplete Plasma Cell Myeloma, Next-Generation Sequencing, Varies	<i>BIRC3, BRAF, CCND1, CDKN2A, CRBN, CUL4A, CUL4B, CXCR4, DIS3, EGFR, IDH1, IDH2, IKZF1, IKZF3, KRAS, MYC, MYD88, NRAS, NSD2, PIK3CA, PIM1, STAT3, TENT5C, TP53, TRAF3, XBP1</i>	<ul style="list-style-type: none"> Multiple myeloma Plasma cell myeloma

MYELOID NEOPLASMS[†]

Mayo ID	Test name	Genes	Disease states
 NGSHM[†]	MayoComplete Myeloid Neoplasms, Comprehensive OncoHeme Next-Generation Sequencing, Varies	<i>ANKRD26, ASXL1, BCOR, BCORL1, BRAF, CALR, CBL, CEBPA, CSF3R, DDX41, DNMT3A, ELANE, ETNK1, ETV6, EZH2, FLT3, GATA1, GATA2, IDH1, IDH2, JAK2, KDM6A, KIT, KRAS, MPL, NF1, NPM1, NRAS, PHF6, PPM1D, PTPN11, RAD21, RUNX1, SETBP1, SH2B3, SF3B1, SMC3, SRSF2, STAG2, STAT3, TERT, TET2, TP53, U2AF1, UBA1, WT1, ZRSR2</i>	<ul style="list-style-type: none"> Acute myeloid leukemia Myelodysplastic syndrome Myeloproliferative neoplasm Unexplained cytopenias Hematologic neoplasm (myeloid origin)
 NGAML[†]	MayoComplete Acute Myeloid Leukemia, 11-Gene Panel, Varies	<i>CEBPA, DNMT3A, FLT3, IDH1, IDH2, KIT, KRAS, NPM1, NRAS, RUNX1, TP53</i>	<ul style="list-style-type: none"> Acute myeloid leukemia
 NGAMT[†]	MayoComplete Acute Myeloid Leukemia, Therapeutic Gene Mutation Panel (<i>FLT3, IDH1, IDH2, TP53</i>), Next-Generation Sequencing, Varies	<i>FLT3, IDH1, IDH2, TP53</i>	<ul style="list-style-type: none"> Acute myeloid leukemia
 NGSFX[†]	Reanalysis of Acute Myeloid Leukemia 4- or 11-Gene Panels, Additional Genes	<i>ANKRD26, ASXL1, BCOR, BCORL1, BRAF, CALR, CBL, CEBPA, CSF3R, DDX41, DNMT3A, ELANE, ETNK1, ETV6, EZH2, FLT3, GATA1, GATA2, IDH1, IDH2, JAK2, KDM6A, KIT, KRAS, MPL, NF1, NPM1, NRAS, PHF6, PPM1D, PTPN11, RAD21, RUNX1, SETBP1, SH2B3, SF3B1, SMC3, SRSF2, STAG2, STAT3, TERT, TET2, TP53, U2AF1, UBA1, WT1, ZRSR2</i>	<ul style="list-style-type: none"> Acute myeloid leukemia Myelodysplastic syndrome Myeloproliferative neoplasm Unexplained cytopenias Hematologic neoplasm (myeloid origin)
 UBAIQ[†]	<i>UBA1</i> Mutation Quantitative Detection, VEXAS syndrome, Droplet Digital PCR, Varies	<i>UBA1</i>	<ul style="list-style-type: none"> VEXAS syndrome

MULTIPLE MYELOMA[†]

Mayo ID	Test name	Disease states
 QMPSS[†]	Monoclonal Protein Study, Quantitative, Serum	<ul style="list-style-type: none"> Monoclonal gammopathies

Advantages for QMPSS

- QMPSS provides an effective and easy way to ensure patients are receiving the right test at the right time while adhering to International Myeloma Working Group (IMWG) guidelines when combined with immunoglobulin free light chains serum testing (Mayo ID: FLCS[†]) at diagnosis.
- Greater test sensitivity of monoclonal proteins and ability to quantify to a lower threshold (LOQ 0.01 g/dL) than traditional protein electrophoresis (LOQ 0.2 g/dL).
- With much greater sensitivity and specificity for quantification, clinicians can be even more confident when negative test results are obtained while detecting monoclonal gammopathies earlier.
- Enhanced ability to track glycosylated light chains for deeper understanding and identification of patients at higher risk for multiple myeloma or AL amyloidosis.
- Measurement of IgG, IgA, and IgM isotypes allows providers to better interpret the spectra that are seen.
- Both QMPSS and FLCS must be ordered for diagnostic testing; order QMPSS only for monitoring.

ADDITIONAL RESOURCES

Click on the buttons below to learn more about the specific resource.

Testing

Mayo Clinic Laboratories offers a full menu of hematology testing.

[Learn more](#)

Test selection guide

Our hematology, oncology, and hereditary test selection guide is designed to help you navigate our test menu.

[Learn more](#)

Podcast

Learn how our UBA1Q assay provides quick diagnosis of VEXAS syndrome.

[Learn more](#)

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