NEO GENOMICS

COMPASS
COMPREHENSIVE ASSESSMENT

COMPASS®

A suite of sample-to-diagnosis services to help navigate the complexities of hematological malignancies

Why choose COMPASS®?

With over 100 different subtypes of leukemias, lymphomas and myelomas, reaching a definitive diagnosis requires the time and expertise to manage ever-evolving clinical guidelines and testing criteria.

COMPASS Hematopathology Services is a comprehensive single-order sample-to-diagnosis service for complex heme malignancies

- Results are **definitive**
- Driven by **board-certified hematopathologists**
- All-in-one report: Ideal for **community oncologists** and **pathologists**

Set your patients on the right course from the start

Your COMPASS® service is fully personalized and guided by a board-certified hematopathologist, who will evaluate all clinical history and laboratory information provided to determine the best testing regimen.

As medically necessary, multi-modal testing (e.g., cytogenetics, FISH, flow cytometry, morphology, molecular including NGS, etc.) will be used to arrive at the most accurate diagnosis. Notifications for acute cases will be returned within 24 hours of sample receipt.

You will be provided an all-in-one assessment report, unique to your patient, detailing their definitive diagnosis and compiling results from all modalities utilized.

Available for peripheral blood and bone marrow specimens

Demand definitive answers for optimal patient care

Sample COMPASS® report

NEO GENOMICS

866.776.5907, option 3

COMPASS®

Sample Client

1234 Main Street
City, State
Phone: (555) 555-5555
Fax: (555) 555-5555

Patient Name: **Sample Patient**
Patient DOB / Sex: **01/01/1972 / F**
Specimen Type: **Bone Marrow**
Body Site: **Bone Marrow**
Specimen ID: **NOT SPECIFIED**
MRN:
Reason for Referral: **NEUTROPENIA, UNSPECIFIED**

Ordering Physician(s): **Sample Doctor, MD**
Treating Physician(s): **Sample Doctor, MD**
Accession / CaseNo: **1234567 / GPS23-000000**
Collection Date: **03/27/2023 02:10:00 PM**
Received Date: **03/27/2023 02:19:00 PM EDT**
Report Date: **04/10/2023 01:33:23 PM EST**

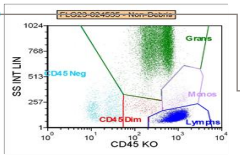
Clinical History:

The patient is a 51-year-old female with a clinical diagnosis or consideration of neutropenia, leukopenia, anemia, and thrombocytopenia. CBC report received from the ordering facility and dated 27 MAR 2023 indicates WBC 3.3 K/uL, RBC 3.83 M/uL, Hgb 12.2 g/dL, Hct 38.1%, MCV 99.5 fL, MCH 31.9 pg, MCHC 32.0 g/dL, RDW 14.4%, Plts 131 K/uL with a differential count of neutrophils: 35.1%, lymphocytes: 60.0%, monocytes: 4.0%, eosinophils: 0.6%, basophils: 0.3%.

Final Diagnosis:
Myelodysplastic neoplasm with low blasts and single lineage dysplasia

Comprehensive Assessment

For this patient with a clinical diagnosis or consideration of neutropenia, leukopenia, anemia, and thrombocytopenia, her bone marrow is hypercellular and demonstrates multilineage hematopoiesis displaying maturation, erythroid hyperplasia, mild atypia, and ~1% blasts. Flow cytometry does not detect immunophenotypic evidence of a lymphoproliferative disorder, increased blasts, or a plasma cell neoplasm. Karyotyping is normal. NGS detects a TET2 mutation. Overall, findings are consistent with the presence of myelodysplasia best characterized as myelodysplastic neoplasm with low blasts and single lineage dysplasia (WHO 5th edition). Age-adjusted risk according to the revised IPSS is very low. There is no evidence of metastatic carcinoma. Mild focal reticulin fibrosis is noted. Specimen limitations preclude optimal stainable storage iron assessment. Ring sideroblasts are not seen. Final interpretation requires correlation with clinical findings.



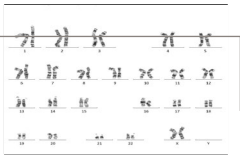
Morphology

BONE MARROW, CORE BIOPSY, CLOT SECTION, AND ASPIRATE SMEARS:

- Hypercellular bone marrow (60-70%) with multilineage hematopoiesis demonstrating maturation, erythroid hyperplasia, mild atypia, and ~1% blasts.
- No evidence of a lymphoproliferative disorder, a plasma cell neoplasm, or metastatic carcinoma.
- Mild focal reticulin fibrosis.

PERIPHERAL BLOOD:

- Leukopenia with neutropenia (WBC 3.3 K/uL, ANC 1.1 K/uL).
- Borderline anemia (Hgb 12.2 g/dL, MCV 99.5 fL).
- Borderline thrombocytopenia (platelets 131 K/uL).



Flow Cytometry

No diagnostic immunophenotypic abnormalities detected.

Cytogenetics

46,XX[20] NORMAL FEMALE KARYOTYPE

Cytogenetic analysis shows a normal female karyotype in all cells analyzed.

Neo Comprehensive - Myeloid Disorders

TET2; p.Q321* **DETECTED**

Final and definitive diagnosis

Comprehensive assessment with actionable diagnostic and prognostic information

Testing results from the multiple modalities employed

Chart a course that

COMPASS® SELECT

A versatile solution for pathologists

COMPASS SELECT is a COMPASS offering optimized for pathologists with local morphologic evaluation capabilities.

- Led by a board-certified hematopathologist, your existing morphologic results are seamlessly integrated into the COMPASS SELECT assessment.
- Only medically necessary additional tests are performed to arrive at a conclusive diagnosis.

Your COMPASS service is fully personalized and guided by a board-certified hematopathologist, who will evaluate all clinical history and laboratory information provided to determine the best testing regimen.

best suits your needs

CHART®
Comprehensive Hematopathology Assessment and Review over Time

When serial or subsequent COMPASS® evaluations are requested on a single patient, NeoGenomics will automatically provide a CHART® report. Each CHART report comprises a series of COMPASS reports generated over time. The CHART report format allows direct comparison of multiple prior COMPASS work-ups for patients being monitored across various clinical applications:

- Monitoring your patient's response to therapy
- Determining disease progression
- Evaluating clonal evolution
- Assessing residual disease

Sample CHART® report

Final and definitive diagnosis

Data columns show previous and current results, allowing for longitudinal evaluation

NEO GENOMICS
866.776.5907, option 3

CHART®

Sample Client

1234 Main Street
City, State
Phone: (555) 555-5555
Fax: (555) 555-5555

Patient Name: **Sample Patient**
Patient DOB / Sex: **01/01/1966 / F**
Specimen Type: **Bone Marrow**
Body Site: **Bone Marrow**
Specimen ID: **NOT SPECIFIED**
MRN:
Reason for Referral: **CHRONIC MYELOMONOCYTIC LEUKEMIA NOT HAVING ACHIEVED REMISSION**

Ordering Physician(s): **Sample Doctor, MD**
Treating Physician(s): **Sample Doctor, MD**
Accession / CaseNo: **1234567 / GPS22-000000**
Collection Date: **01/18/2022 11:00:00 AM**
Received Date: **01/19/2022 11:07:00 AM PST**
Report Date: **02/01/2022 01:14:57 PM EST**

Clinical History:
The patient is a 55-year-old female with clinical diagnosis or consideration of leukocytosis, anemia, monocytosis, basophilia, thrombocytopenia, and KIT mutation. chronic myelomonocytic leukemia. Accompanying CBC report, received from the ordering facility and dated 18 JAN 2022, indicates WBC 8.9 k/uL, RBC 3.73 M/uL, Hgb 11.8 g/dL, Hct 36.5%, MCV 97.9 fL, MCH 31.6 pg, MCHC 32.3 g/dL, RDW 17.5%, Plts 61 k/uL, with a differential count of neutrophils: 55.2%, lymphocytes: 16.8%, monocytes: 12.6%, eosinophils: 0.1%, basophils: 0.3%, IG: 15.0%, NRBC: 0.0%.

Final Diagnosis:
Chronic myelomonocytic leukemia (CMML-0). Systemic mastocytosis with an associated hematological neoplasm.

Comprehensive Assessment

The marrow morphologic findings, including hypercellular marrow with granulocytic and monocytic hyperplasia and dysplasia, are typical of chronic myelomonocytic leukemia, supported by the presence of comutation of TET2 and SRSF2 on prior and current molecular testing. Blasts are quantitated at less than 5%; there is mild reticulin fibrosis. Also present are increased mast cells, showing atypical forms, aberrant CD25 expression, and KIT D816V mutation, meeting criteria for systemic mastocytosis. Taken together, this is typical of systemic mastocytosis with an associated hematological neoplasm. Clinical correlation is

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Diagnosis	Myeloid neoplasm involving peripheral blood.	Myeloproliferative neoplasm, unclassifiable.	Chronic myelomonocytic leukemia (CMML-0). Systemic mastocytosis with an associated hematological neoplasm.
Morphology	PERIPHERAL BLOOD SMEAR REVIEW: Normocytic normochromic RBC's with mild anisocytosis. Leukocytosis with absolute neutrophilia and shift to immaturity including many myelocytes Absolute monocytosis with slightly shift to immaturity Lymphocytes are normal in number and are composed of mixture of small and large lymphocytes Moderate thrombocytopenia with rare large platelets. The peripheral smear findings are consistent with the reported CBC.	BONE MARROW, SITE NOT SPECIFIED, CORE BIOPSY, CLOT SECTION, TOUCH IMPRINTS, AND ASPIRATE SMEAR REVIEW: - Hypercellular bone marrow with erythroid hypoplasia, left-shifted granulocytic hyperplasia and megakaryocytic hyperplasia - Mild diffuse reticulin fibrosis PERIPHERAL BLOOD: - Normocytic anemia, leukocytosis with left-shifted neutrophilia and monocytosis, and thrombocytopenia	BONE MARROW, SITE NOT SPECIFIED, CORE BIOPSY, CLOT SECTION, TOUCH IMPRINTS, AND ASPIRATE SMEARS: - Chronic myelomonocytic leukemia (CMML-0). - Consistent with systemic mastocytosis with an associated hematological neoplasm.

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n,	Chronic myelomonocytic leukemia (CMML-0). Systemic mastocytosis with an associated hematological neoplasm.
PECIFIED, , TOUCH MEAR REVIEW: w eft- asia and sis cytosis with monocytosis,	BONE MARROW, SITE NOT SPECIFIED, CORE BIOPSY, CLOT SECTION, TOUCH IMPRINTS, AND ASPIRATE SMEARS: - Chronic myelomonocytic leukemia (CMML-0). - Consistent with systemic mastocytosis with an associated hematological neoplasm.

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COMPASS
COMPREHENSIVE ASSESSMENT

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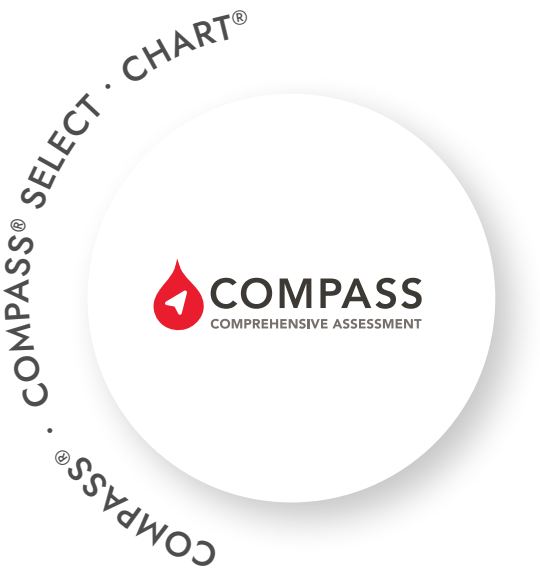
The COMPASS® suite of services

Personalized expertise and definitive diagnoses in heme cancers



- Nearly 20 years of COMPASS experience
- 35+ board-certified hematopathologists
- Timely and definitive results
- Get notified within 24 hours of receipt of sample for acute cases

Learn more at
neogenomics.com

NeoGenomics Laboratories is a specialized oncology reference laboratory providing the latest technologies, testing, partnership opportunities, and interactive education to the oncology and pathology communities. We offer the complete spectrum of diagnostic services in NGS, FISH, cytogenetics, flow cytometry and immunohistochemistry through our nationwide network of CAP-accredited, CLIA-certified laboratories.

NEO GENOMICS

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