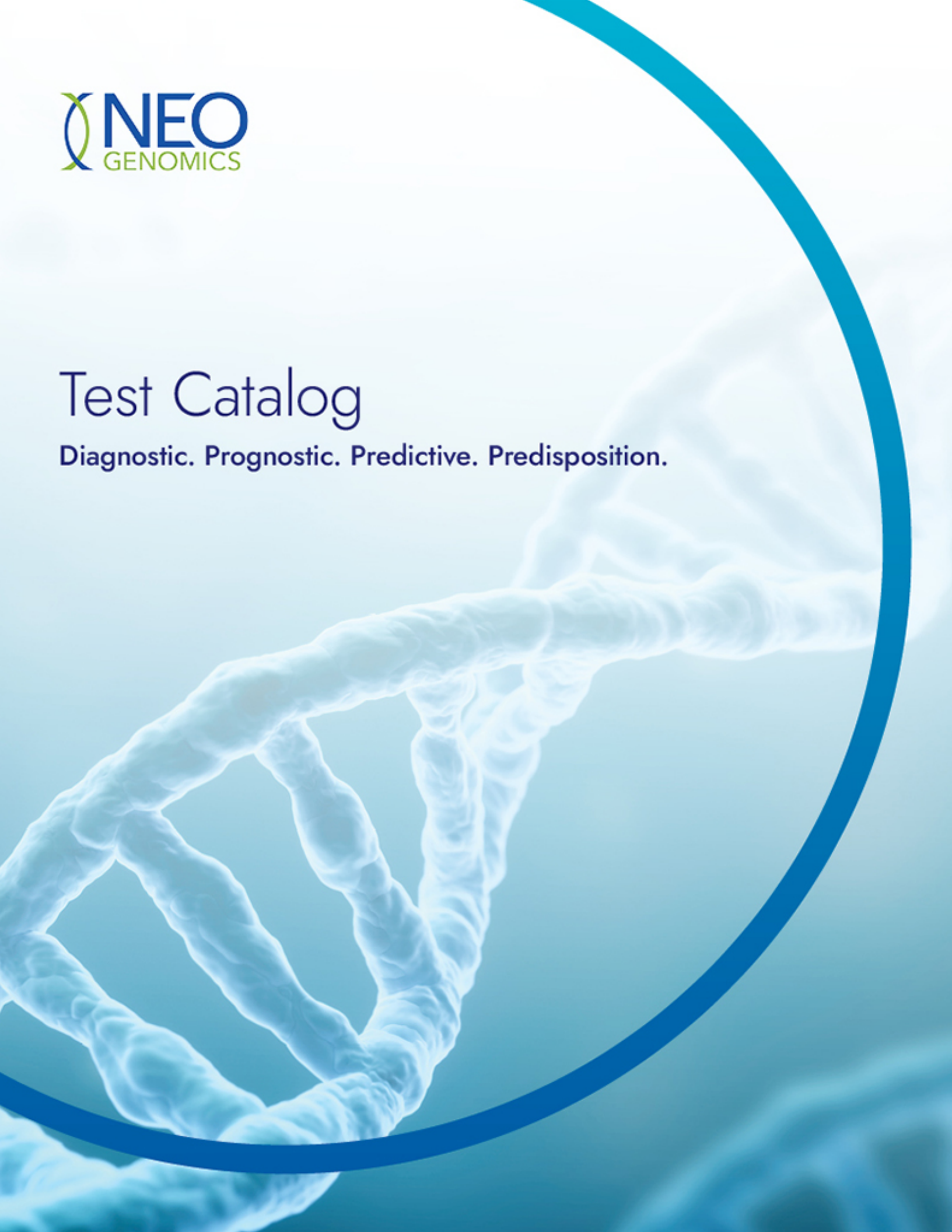
NEO GENOMICS

Test Catalog

Diagnostic. Prognostic. Predictive. Predisposition.



Neo Comprehensive™ - Heme Cancers

Alternative Name

Neo Comprehensive Heme, Neo Comp Heme, Heme CGP

Methodology

Molecular

Test Description

The Neo Comprehensive™ - Heme Cancers assay analyzes 433 genes to detect DNA and RNA alterations through next-generation sequencing (NGS) as noted below. Test reports include a summary interpretation of all results together.

DNA Sequencing

- SNVs/InDels (302 genes): ABL1, ABL2, AKT1, AKT2, AKT3, ALK, ANKRD26, APC, ARAF, ARHGEF1, ARID1A, ARID1B, ARID2, ASXL1, ASXL2, ATG2B, ATM, ATP2A2, ATRX, AXL, B2M, BAP1, BCL2, BCL2L11, BCL6, BCOR, BCORL1, BCR, BIRC3, BLM, BRAF, BRCA1, BRCA2, BRINP3, BRIP1, BTK, C17orf97, CALR, CARD11, CBFB, CBL, CBLB, CBLC, CCND1, CCND2, CCND3, CD274, CD33, CD79A, CD79B, CDC25C, CDK2, CDK4, CDK6, CDKN1B, CDKN2A, CDKN2B, CEBPA, CHEK2, CIC, CIITA, CREBBP, CRLF2, CSF1R, CSF3R, CTC1, CTCF, CTNNB1, CUX1, CXCR4, CYLD, DAXX, DCK, DDX3X, DDX41, DIS3, DKC1, DNMT1, DNMT3A, EBF1, EED, EGFR, EGLN1, EGR1, ELANE, EP300, EPCAM, EPHA2, EPHA7, EPOR, ERBB2, ERBB3, ERCC4, ETNK1, ETV6, EZH2, FANCA, FANCB, FANCC, FANCD2, FANCE, FANCF, FANCG, FANCI, FANCL, FANCM, FAS, FAT1, FBXW7, FGFR1, FGFR2, FGFR3, FLT3, FOXO1, FUBP1, G6PC3, GAB2, GATA1, GATA2, GATA3, GFI1, GNA12, GNA13, GNAI2, GNAQ, GNAS, GNB1, GSKIP, H1-4, HAX1, HIF1A, HNRNPK, HRAS, ID3, IDH1, IDH2, IGF1R, IKBKB, IKZF1, IKZF3, IL7R, IRAK4, IRF4, ITPKB, JAK1, JAK2, JAK3, KDM6A, KDR, KEAP1, KIT, KLF2, KLHL6, KMT2A, KMT2C, KMT2D, KRAS, LUC7L2, MALT1, MAP2K1, MAP3K1, MAP3K14, MAPK1, MCL1, MDM2, MDM4, MED12, MEF2B, MET, MLH1, MPL, MSH2, MSH6, MTOR, MYC, MYCN, MYD88, NBN, NCAPH, NF1, NFKBIE, NHP2, NOP10, NOTCH1, NOTCH2, NOTCH3, NPM1, NRAS, NSD1, NT5C2, NTRK1, NTRK2, NTRK3, NUP214, NUP98, P2RY8, PALB2, PAX5, PDCD1LG2, PDGFRA, PDGFRB, PHF6, PIGA, PIK3CA, PIK3CD, PIK3R1, PIM1, PLCG1, PLCG2, PML, PMS2, POT1, PPM1D, PRDM1, PRPF40B, PRPF6, PRPF8, PRPS1, PTCH1, PTEN, PTPN11, PTPRC, RAC1, RAD21, RAD51C, RAD51D, RB1, RBBP6, REL, RHEB, RHOA, RICTOR, RIPK1, RIT1, RPL11, RPL35A, RPL5, RPN1, RPS10, RPS15, RPS17, RPS26, RPS7, RTEL1, RUNX1, S1PR2, SAMD9, SAMD9L, SAMHD1, SBDS, SETBP1, SETD2, SF1, SF3A1, SF3B1, SGK1, SH2B3, SLX4, SMAD4, SMARCB1, SMC1A, SMC3, SMO, SOCS1, SPEN, SRP72, SRSF2, STAG2, STAT3, STAT5B, STAT6, STK11, SUZ12, TBL1XR1, TCF3, TENT5C, TERC, TERT, TET2, TET3, THPO, TINF2, TLR2, TNFAIP3, TNFRSF14, TP53, TP63, TRAF2, TRAF3, TSC1, TSC2, U2AF1, U2AF2, UBR5, VHL, WAS, WRAP53, WT1, XPO1, ZFHX4, ZMYM3, ZRSR2
- Copy Number Variants (CNV) (24 genes): ABL1, ASXL1, ATM, BRAF, CBL, CD274, CDKN1B, CDKN2A, DNMT1, EPOR, ETV6, EZH2, FLT3, IKZF1, JAK2, KMT2A, KRAS, MYC, PAX5, RAD21, REL, TNFRSF14, TP53, XPO1

RNA Sequencing

- Fusions (184 genes): ABI1, ABL1, ABL2, ACTN4, ADAMTS17, AFDN, AFF1, AFF3, AGGF1, ALK, ARHGAP26, ARHGEF12, ATF7IP, ATIC, ATP2A1, ATP5MG, BCL11B, BCL2, BCL6, BCR, BIN2, BIRC3, CALR, CAPRIN1, KNL1, CBFB, CBL, CCDC6, CCDC88C, CCND1, CCND2, CCND3, CDK6, CEP43, CEP85L, CHD1, CHIC2, CIITA, CNTRL, COL1A1, CPSF6, CREBBP, CRLF2, CSF1R, CXCR4, DEK, DTD1, DUSP22, EBF1, EIF4A1, ELL, EML1, EP300, EPOR, EPS15, ERC1, ERG, ERVK3, ETV6, FGFR1, FGFR1OP2, FIP1L1, FLT3, FNBP1, FOXO4, FOXP1, FRYL, FUS, GAS7, GIT2, GLIS2, GOLGA4, GPHN, HIP1, HLF, HNRNPA2B1, IKZF1, IKZF2, IKZF3, JAK2, KANK1, KAT6A, KLF2, KMT2A, LAIR1, LMNA, LRRFIP1, MALT1, MAML2, MAP4, MECOM, MEF2D, MRTFA, MLF1, MLLT1, MLLT10, MLLT11, MLLT3, MLLT6, MYB, MYC, MYH11, MYO18A, MYO1F, NDE1, NF1, NFKB2, NIN, NOTCH1, NOTCH2,

NPM1, NRIP1, NTRK1, NTRK2, NTRK3, NUP214, NUP98, P2RY8, PAG1, PAX5, PBX1, PCM1, PDCD1LG2, PDE4DIP, PDGFRA, PDGFRB, PICALM, PLAG1, PML, PRDM16, PRDM9, PRKG2, PTK2B, PVT1, RABEP1, RARA, RBM15, RBM6, RCSD1, ROS1, RPN1, RUNX1, RUNX1T1, SART3, SEMA6A, SEPTIN2, SEPTIN3, SEPTIN5, SEPTIN6, SEPTIN9, SET, SETD2, SNX2, SPECC1, SPTBN1, SQSTM1, SSBP2, STIL, SYNRG, TACC1, TAL1, TBL1XR1, TCF3, TERF2, TET1, TFG, TLX1, TLX3, TP53BP1, TP63, TPM3, TPR, TRIM24, TRIP11, TYK2, UBE2R2, WDR48, ZBTB16, ZCCHC7, ZEB2, ZMIZ1, ZMYM2, ZNF384, ZNF703

Note: FLT3 by PCR (via FLT3 Mutation Analysis) is available to be ordered, as Client-Bill only, in conjunction with the Neo Comprehensive - Heme Cancers. It is reported separately from the Neo Comprehensive profile for the purpose of prompt therapy selection in patients with a new diagnosis of AML.

Clinical Significance

The Neo Comprehensive - Heme Cancers profile is a DNA (302 genes) + RNA (184 genes) panel that detects known mutations, CNVs and RNA fusions associated with most forms of hematologic malignant disorders, such as acute myeloid leukemia (AML), myeloproliferative neoplasms (MPN), myelodysplastic syndromes (MDS), chronic myelogenous leukemia (CML), angioimmunoblastic T-cell lymphoma (AITL)/peripheral T-cell lymphoma (PTCL), acute lymphoblastic leukemia (ALL), chronic lymphocytic leukemia (CLL), T/NK-large granular lymphocytic leukemia, among others.

Testing using this panel can provide key diagnostic information, including critical molecular determinations affecting therapeutic approaches, can aid in risk stratification and predicting prognosis, and can also be used in clinical research.

Specimen Requirements

- **Bone Marrow Aspirate:** 2-3 mL in EDTA tube
- **Peripheral Blood:** 3-5 mL in EDTA tube
- **FFPE tissue:** Paraffin block. Alternatively, send 1 H&E slide plus 10-14 unstained slides cut at 5 or more microns. Please use positively-charged slides and 10% NBF fixative is the recommended fixative. Do not use zinc or mercury fixatives (B5). Highly acidic or prolonged decalcification processes will not yield sufficient nucleic acid to accurately perform molecular studies.

Note: Test is NOT suitable for Freeze & Hold option

Storage & Transportation

Use refrigerated cold pack for transport. Make sure cold pack is not in direct contact with specimen. Ship same day as drawn whenever possible; specimens <7 days old preferred.

Important! To ensure sample stability, ship samples directly to NeoGenomics Aliso Viejo.

CPT Code(s)*

81455

Medicare MolDX CPT Code(s)*

81479

New York Approved

Yes

Level of Service

Global

Turnaround Time

14 Days

*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.

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 molecular testing, FISH, cytogenetics, flow cytometry, and immunohistochemistry through our nation-wide network of CAP-accredited, CLIA-certified laboratories.

Committed to research as the means to improve patient care, we provide Pharma Services for pharmaceutical companies, in vitro diagnostic manufacturers, and academic scientist-clinicians. We promote joint publications with our client physicians. NeoGenomics welcomes your inquiries for collaborations. Please contact us for more information.

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