Baylor Miraca
Genetics Laboratories

Cancer Genetic Testing

Personalized Medicine starts with Personalized Service

The Baylor Miraca Genetics Laboratories (BMGL) leverages the expertise of leading physicians and scientists in the fields of genetics and oncology with one purpose, personalized care. Through state of the art technologies and bioinformatics, BMGL is helping to uncover new, more effective uses of cancer drugs and therapeutics. The BMGL menu represents an extensive portfolio of hereditary and somatic cancer testing, allowing a physician to have the peace of mind that nearly every test needed is available, from single-gene testing to therapeutic and research panel testing to our most comprehensive cancer test, Cancer Exome Sequencing. The Baylor Miraca Genetics Laboratories is here to serve your needs.

TESTS

Over 140 Tests for Hereditary and Acquired Cancers:

- Cancer Exome Sequencing
- Cancer Mutation Panels using Next-Generation Sequencing
- Cancer Chromosomal Microarrays
- FISH Analysis
- Single-Gene Sequencing
- Deletion/Duplication Analysis
- Chromosome Analysis
- Immunohistochemistry

SERVICES

- Competitive Pricing
- Rapid Turnaround Times
- Expert Consultations and Interpretations
- Insurance Pre-Authorizations
- Insurance Billing
- Custom Requisition Forms
- Pre-Made Shipping Kits

SHIPPING: Baylor Miraca Genetics Laboratories
2450 Holcombe, Grand Blvd. – Receiving Dock
Houston, TX 77021.

For questions regarding tests and services please call 713-798-6555 or 1-800-411-gene (4363).
Web site: www.BMGL.com

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CANCER TEST MENU

FAMILIAL CANCER SYNDROMES/GERMLINE MUTATION TESTS	Test Code
Rothmund-Thomson Syndrome	
RECQL4 Sequence Analysis	6121
Bannayan-Riley-Ruvalcaba Syndrome | Cowden Syndrome | Macrocephaly/Autism Syndrome | Proteus Syndrome | Proteus-like Syndrome | PTEN Hamartoma Tumor Syndrome (PHTS)	
PTEN Comprehensive (Sequence and Deletion/Duplication Analyses)	6790
Familial Thrombocytopenia with Propensity to Acute Myelogenous Leukemia	
RUNX1 Sequence Analysis	6520
Hereditary Leiomyomatosis and Renal Cell Cancer	
FH Sequence Analysis	3740
Hereditary Paraganglioma-Pheochromocytoma or Leukoencephalopathy	
Panel includes SDHB, SDHC, & SDHD Sequence Analysis	3600
Li-Fraumeni Syndrome	
TP53 Comprehensive - Sequence & Deletion/Duplication Analyses	6821
Hereditary Colorectal Cancer and Polyposis Syndromes	
APC Comprehensive (Sequencing & Del/Dup) for Familial Adenomatous Polyposis	6720
HNPCC MSI & IHC Screening	6098
HNPCC PLUS Comprehensive Panel (MLH1, MSH2, MSH6, PMS2, EPCAM)	6726
MUTYH (MYH) Sequence Analysis for MYH-associated Polyposis	6120
Multiple Endocrine Neoplasia Type 1/2	
MEN1 Sequence Analysis	3665
RET Sequence Analysis	3660
Von Hipple Lindau Syndrome	
VHL Comprehensive (Sequence and Deletion/Duplication Analyses)	6770
Hereditary Cancer Panels	
See Hereditary Cancer Panel flyer for comprehensive list of panels	

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CANCER (ACQUIRED/SOMATIC) TESTING	Test Code
Arrays and Next-Generation Sequencing	
180K CGH/SNP Array	9505
BCM 400K CGH/SNP Array	9510
CytoScan™ HD SNP Array	9515
Cancer Gene Mutation Panel (50 genes)	9705
Leukemia Mutation Panel (48 genes)	9715
Chromosome Analysis (Cytogenetics)	
Chromosome Analysis - CLL	8045
Oncology Chromosome Analysis - Blood/Bone Marrow	8300
Oncology Chromosome Analysis - Solid Tumor	8050
Acute Lymphoblastic Leukemia (ALL)	
ALL FISH Panel	8010
TCF3/PBX1 FISH	8080
Acute Myeloid Leukemia (AML)	
AML FISH Panel	8000
KIT Mutation Analysis	9100
CBFB: inv(16) FISH	8740
FLT3 ITD & D835 Mutation Analysis (Test performed by LabPMM)	9045
NPM1 Exon 12 Mutation Analysis	9005
PML/RARA Qualitative Analysis for APL	9080
Brain Cancer	
1p/19q Co-deletion FISH	8055
Breast Cancer	
EGFR FISH	8035
HER2/neu FISH	8025
PIK3CA Mutation Analysis	9035
TP53 Mutation Analysis	9055

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CANCER (ACQUIRED/SOMATIC) TESTING	Test Code
Chronic Lymphocytic Leukemia (CLL)	
Chromosome Analysis - CLL	8045
CLL FISH Panel	8040
IGVH Mutation Analysis	9060
TP53 Mutation Analysis	9055
Chronic Myelogenous Leukemia (CML)	
BCR/ABL1 - Qualitative Analysis	9070
BCR/ABL1 - Quantitative Analysis	9065
BCR/ABL FISH	8750
BCR/ABL1 TKD Mutation Analysis	9305
Colorectal Cancer	
BRAF V600 Mutation Analysis	9003
EGFR FISH	8035
KRAS Mutation Analysis	9126
PIK3CA Mutation Analysis	9035
TP53 Mutation Analysis	9055
Lung Cancer	
ALK FISH (FDA-approved)	8030
EGFR FISH	8035
EGFR Mutation Analysis	9030
KRAS Mutation Analysis	9126
ROS1 FISH	8781
MET FISH	8095
Lymphoma	
Burkitt's lymphoma MYC Translocation FISH	8760
Clonality Assay (B-Cell): IGH and IGK	9202
Clonality Assay (T-Cell): TCR-beta and TCR-gamma	9217
Follicular lymphoma IGH/BCL2 FISH	8765
Mantle Cell Lymphoma IGH/CCND1 FISH	8770
Non-Hodgkin's Lymphoma (NHL) FISH Panel	8020
Multiple Myeloma (MM)	
MM FISH Panel*	8015

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CANCER (ACQUIRED/SOMATIC) TESTING	Test Code
Myeloproliferative Disorders	
CHIC2 FISH for Hypereosinophilic Syndrome	8730
CALR Exon 9 Mutation Analysis	9016
JAK2 V617 F Mutation Analysis	9010
JAK2 Exon 12 Mutation Analysis	9015
MPL Exon 10 Mutation Anaylyis	9020
MDS FISH Panel	8005
Synovial Sarcoma	
SS18 FISH	8075
Bone Marrow Transplantation	
DXZ1/DYZ3 FISH for Sex Mismatched BMT	8065

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CANCER FISH PROBES – INDIVIDUAL AND PANEL TESTS

DISEASE	PROBE	ABNORMALITY	PROGNOSIS	TEST CODE
Acute Lymphoblastic Leukemia (ALL)				
	ALL FISH Panel (includes all probes below)			**8010**
	LSI MYB/CEP6	6q23 deletion	Associated with variable prognosis, overall, similar to normal chromosome group. Found in ~5% adult ALL cases and 10-20% childhood ALL.	
	LSI p16 (CDKN2A)	9p21.3 deletion	Variable prognosis. Childhood ALL: Frequencies vary in different ALLs, average ~10%. Adult ALL: Found in ~10% adult ALL cases.	
	LSI BCR/ABL with ASS	t(9;22)	Associated with poor prognosis. Found in ~20% adult ALL and 2-5% childhood ALL cases.	
	LSI ETV6 (TEL)/AML1 (RUNX1)	t(12;21)	Associated with favorable prognosis. Childhood ALL: Found in 25% B-cell childhood ALL cases. Associated with favorable prognosis. Adult ALL: Found in 1-4% adult ALL.	
	LSI MLL	t(11;?), del (11)	Associated with poor prognosis. MLL rearrangements are found in ~22% of all ALL cases and in 70-90% of infants ALL.	
	LSI IGH	t(14;?)	Prognosis is dependent on translocation partner. Found in 2-3% of ALL cases.	
Acute Myeloid Leukemia (AML)				
	AML FISH Panel (includes all probes below)			**8000**
	CEP 8 (D8Z2)	Trisomy 8	Associated with intermediate to poor prognosis. Found in 10-15% AML cases.	
	LSI AML1 (RUNX1)/ETO	t(8;21)	Associated with favorable prognosis. Found in 7-12% AML cases. Reported at higher frequency in children than adults.	
	LSI MLL	t(11;?), del(11)	Associated with poor prognosis. MLL-associated rearrangements are found in 10% of all AML cases and in 50% of infants with AML.	
	LSI PML/ RARα	t(15;17)	Associated with favorable prognosis. Found in 5-8% AML cases. Found in ~100% of acute promyelocytic cases.	
	LSI CBFB	t(16;16), inv(16)	Associated with favorable prognosis. Found in 5-8% AML cases.	

DISEASE	PROBE	ABNORMALITY	PROGNOSIS	TEST CODE
Chronic Lymphocytic Leukemia (CLL)				
	CLL FISH Panel (includes all probes below)			**8040**
	LSI MYB/CEP6	6q23 deletion	Associated with variable prognosis, overall, similar to normal chromosome group. Found in ~5% adult ALL cases and 10-20% childhood ALL.	
	LSI p16 (CDKN2A)	9p21.3 deletion	Variable prognosis. Childhood ALL: Frequencies vary in different ALLs, average ~10%. Adult ALL: Found in ~10% adult ALL cases.	
	LSI BCR/ABL with ASS	t(9;22)	Associated with poor prognosis. Found in ~20% adult ALL and 2-5% childhood ALL cases.	
	LSI ETV6 (TEL)/AML1 (RUNX1)	t(12;21)	Associated with favorable prognosis. Childhood ALL: Found in 25% B-cell childhood ALL cases. Associated with favorable prognosis. Adult ALL: Found in 1-4% adult ALL.	
	LSI MLL	t(11;?), del (11)	Associated with poor prognosis. MLL rearrangements are found in ~22% of all ALL cases and in 70-90% of infants ALL.	
	LSI IGH	t(14;?)	Prognosis is dependent on translocation partner. Found in 2-3% of ALL cases.	
Myelodysplastic Syndrome (MDS)				
	MDS FISH Panel (includes all probes below)			**8005**
	LSI EGR1/5p15.2	Mono 5, del (5)	Associated with favorable prognosis as only cytogenetic abnormality in MDS. Associated with poor prognosis in therapy-related MDS/AML or de novo AML (10-25% of cases). Most common cytogenetic abnormality in MDS and AML (found in 20-30% MDS cases).	
	LSI D75486/ CEP 7	Mono 7, del (7)	Associated with poor prognosis. Found in ~30% and ~20% cases of RAEB and CMML, respectively. Associated with treatment resistance.	
	CEP 8	Trisomy 8	Intermediate prognosis as sole abnormality. Found in 10-20% of all MDS and AML cases. About 90% of cases with trisomy 8 as the only chromosome aberration have AML or MDS.	
	LSI MLL	t(11;?), del (11)	Associated with poor prognosis.	
	LSI D20S108	Del (20q12)	Associated with favorable prognosis. Found in 4-5% MDS cases as sole abnormality.	

DISEASE	PROBE	ABNORMALITY	PROGNOSIS	TEST CODE
Multiple Myeloma (MM)				
	MM FISH Panel (includes all probes below)			**8015**
	CEP 9	Trisomy 9	Hyperdiploidy associated with favorable prognosis. Found in 12-58% of all MM cases.	
	LSI RB1	Del (13q14.3)	Associated with poor prognosis. Found in 30-50% of all MM cases.	
	LSI IGH	t(14;?)	Prognosis associated with translocation partner. Incidence increases with stage of disease.	
	CEP 15	Trisomy 15	Associated with favorable prognosis if as part of hyperdiploidy. Found in 25-40% of all MM cases. Trisomy 15 is uncommon as the sole chromosomal abnormality.	
	LSI p53	Del (17p13)	Associated with poor prognosis. Found in 5-10% of cases at time of diagnosis.	
Non-Hodgkin's Lymphoma (NHL)				
	NHL FISH Panel (includes all probes below)			**8020**
	LSI ALK	t(2;5)	Found in over 50% of anaplasic large cell lymphoma (ALCL) cases. Associated with favorable prognosis.	
	LSI BCL-6	t(3;?)	Increased expression of BCL-6 is found to be associated with favorable prognosis. It is unclear as to what effect a BCL-6 translocation has on prognosis. Found in 5% to 15% of follicular lymphomas, and 20% to 40% of DLBCL cases.	
	LSI ATM/p53	Del (11q22), Del (17p11)	Del (11) : The overall incidence in NHL is 4-5%. Found in up to 70% of all mantle cell lymphoma cases. Associated with variable to poor prognosis. Del (17) : Found in 10-15% of follicle center cell lymphoma (FCCL) and mantle cell lymphomas (MCL). Associated with poor prognosis.	
	LSI IGH	t(14;?)	Limited prognostic significance. IGH translocations found in ~50% of all NHLs, 12-35% of diffuse large B-cell lymphomas (DLBCL), ~ 90% of follicular lymphoma cases, 50-70% cases of MCL, and 20-60% of marginal zone lymphoma (MZL) cases. Used as diagnostic depending on translocation partner.	

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DISEASE	PROBE	ABNORMALITY	PROGNOSIS	TEST CODE
ALL	LSI ETV6 (TEL)/AML1 (RUNX1)	t(12;21)	Associated with favorable prognosis. Childhood ALL: Found in 25% B-cell childhood ALL cases. Associated with favorable prognosis. Adult ALL: Found in ~5% adult ALL.	**8755**
ALL	TCF3/PBX1	t(1;19)(q23;p13)	This test detects t(1;19)(q23;p13) translocation in ALL. The chromosome anomaly is associated with adverse prognostic features.	**8080**
ALL/AML	LSI MLL	t(11;?), del(11)	ALL: Associated with poor prognosis. MLL rearrangements are found in ~22% of all ALL cases and in 70-90% of infants ALL. AML: Associated with poor prognosis. MLL rearrangements are found in 10% of all AML cases and in 50% of infants with AML.	**8745**
AML	LSI CBFB	t(16;16), inv(16)	Associated with favorable prognosis. Found in 5-8% AML cases.	**8740**
AML	LSI AML1 (RUNX1)/ETO	t(8;21)	Associated with favorable prognosis. Found in 7-12% AML cases. Reported at higher frequency in children than adults.	**8725**
AML	LSI PML/ RARα	t(15;17)	Associated with favorable prognosis. Found in 5-8% AML cases. Found in ~100% of all acute promyelocytic cases.	**8735**
Bone Marrow Transplantation	X/Y	DXZ1/DYZ3	This test determines the level of donor bone marrow engraftment for sex mismatched bone marrow transplantation.	**8065**
Brain Cancer	1p/19q	1p36-19q13 co-deletion	Combined 1p36-19q13 deletions are highly associated with classic oligodendroglioma histology and a longer survival rate	**8055**
Breast Cancer	CEP ERBB2 (HER2/neu)	17q12 amplification	Associated with poor prognosis. Found in ~30% of all breast cancer cases. HER2/neu overexpression predicts sensitivity to trastuzumab treatment	**8025**
Burkitt's lymphoma	LSI MYC	t(8;?)	Found in 75-90% cases of Burkitt's lymphoma.	**8760**
CML/ALL/AML	LSI BCR/ABL	t(9;22)	CML: Limited prognostic significance. Found in ~95% of CML cases. Favorable prognosis compared to BCR/ABL negative CML. ALL: Associated with poor prognosis. Found in ~25% to 44% adult ALL cases. AML: Found in less than 1% of AML cases. Associated with poor prognosis.	**8750**
Follicular Lymphoma	LSI IGH/BCL2	t(14;18)	Limited prognostic significance. Found ~90% and ~30% of all follicular lymphomas and DLBCL cases.	**8765**
Hypereosinophilic Syndrome	CHIC2	Del (4q12)	Uncertain at this time.	**8730**
Lung Cancer, Colorectal Cancer, triple-negative Breast Cancer	EGFR	7p12 amplification	The presence of EGFR amplification is associated with a poor prognosis but may predict response to various EGFR-targeted therapies.	**8035**

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DISEASE	PROBE	ABNORMALITY	PROGNOSIS	TEST CODE
Lung Cancer (NSCLC)	LSI ALK	t(2;?)	Associated with favorable prognosis compared to NSCLC without a rearrangement. ALK rearrangements are found in 3-5% NSCLC. FDA-approved companion diagnostic for ALK inhibitor, Xalkori.	**8030**
Lung Cancer (NSCLC)	LSI MET	7q31 implication	Found in 2-4% of previously untreated NSCLC cases. Found in 5-20% of cases with EGFR-mutated tumors and is correlated with aquired reisitance to EGFR TKIs.	**8095**
Lung Cancer (NSCLC)	LSI ROS1	t(6;?)	Found in 1-2% of NSCLC cases. May respond to crizotinib treatment.	**8781**
Mantle Cell Lymphoma (MCL)	LSI IGH/ CCND1	t(11;14)	Limited prognostic significance. Diagnostic for MCL. Found in 50-70% of cases.	**8770**
MDS	CEP 8	Trisomy 8	Intermediate prognosis as sole abnormality. Found in 10-20% of all MDS and AML cases. About 90% of cases with trisomy 8 as the only chromosome aberration have AML or MDS.	**8385**
MDS	LSI EGR1/5p15.2	Mono 5, del (5)	Associated with favorable prognosis as only cytogenetic abnormality in MDS. Poor prognosis with associated with therapy and de novo-related MDS/AML (10-25% of cases). Most common cytogenetic abnormality in MDS and AML (found in 20-30% MDS cases).	**8710**
MDS	LSI D20S108	Del (20q12)	Associated with favorable prognosis. Found in 4-5% MDS cases as sole abnormality.	**8720**
MDS	LSI D75486/ CEP 7	Mono 7, del (7)	Associated with poor prognosis. Found in ~30% and ~20% cases of RAEB and CMML, respectively. Associated with treatment resistance.	**8715**
Synovial Sarcoma	SS18	t(X;18)(p11.2;q11.2)	Identification of t(X;18)(p11.2;q11.2) or its variant in synovial sarcoma. A t(X;18)(p11.2;q11.2) translocation or its variant is found in almost all synovial sarcomas at all the histologic types.	**8075**

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