| Signature ID       | Description                                                                 | Disease                                      |
|-------------------|------------------------------------------------------------------------------|----------------------------------------------|
| PMID10741968Sig43 | Fibroblasts from Hutchinson-Gilford Progeria                                | Aging                                        |
| PMID14769913Sig34 | Alzheimer's Disease(AD)-Related Genes"                                      | Alzheimer's                                   |
| PMID14769913Sig60 | 609 “Incipient ADGs” or IADGs                                               | Alzheimer's                                   |
| PMID11559565Sig102| Glioblastoma Multiforme (GBM)                                                | Brain cancer                                  |
| PMID10582678Sig16 | Metastatic breast cancer                                                     | Breast Cancer                                 |
| PMID10963602Sig412| Intrinsic Gene Subset                                                        | Breast Cancer                                 |
| PMID11165872Sig16 | MCF-7 Cell Line Overexpressing MnSOD                                          | Breast Cancer                                 |
| PMID11207349Sig51 | BRCA1, BRCA2, and the Sporadic Tumors                                        | Breast Cancer                                 |
| PMID11553815Sig33 | SAM264 Clone Set (Luminal/ER+ Cluster)                                       | Breast Cancer                                 |
| PMID11553815Sig40 | SAM264 Clone Set (Basal Epithelial Cluster)                                  | Breast Cancer                                 |
| PMID11553815Sig66 | SAM264 Clone Set (Proliferation Cluster)                                     | Breast Cancer                                 |
| PMID11562467Sig100| ER+ Tumor Samples                                                            | Breast Cancer                                 |
| PMID1182360Sig70  | MammaPrint for breast cancer relapse prediction                              | Breast Cancer                                 |
| PMID11988Sig170   | Cancer Progression Signature                                                 | Breast Cancer                                 |
| PMID12096084Sig110| 110 BRCA-Discriminating Genes                                                | Breast Cancer                                 |
| PMID12414654Sig70 | Treatment with Hydrogen Peroxide, Menadione, or t-Butyl Hydroperoxide in MCF7| Breast Cancer                                 |
| PMID12495447Sig57 | Rho0 (Devoid of mtDNA) Breast Cancer Cell Line                              | Breast Cancer                                 |
| PMID1253816Sig23  | 23-Gene Set                                                                  | Breast Cancer                                 |
| PMID12610208Sig60 | Classification of familial non-BRCA1/BRCA2                                  | Breast Cancer                                 |
| PMID12714683Sig200| Top 200 Genes Correlating with Tumor Grade                                  | Breast Cancer                                 |
| PMID12714683Sig29 | Regulation in IDC                                                            | Breast Cancer                                 |
| PMID1274887Sig164 | Genes Associated with Metagene Predictors of Breast Cancer Recurrence        | Breast Cancer                                 |
| PMID1274878Sig176 | Genes Associated with Metagene Predictors of Lymph-Node Metastasis           | Breast Cancer                                 |
| PMID12829800Sig500| Intrinsic Gene List                                                          | Breast Cancer                                 |
| PMID1284208Sig102 | In Vivo-Selected Bone Metastasis Signature                                   | Breast Cancer                                 |
| PMID1284208Sig11  | 11 Genes that differed by >4-Fold in Expression                              | Breast Cancer                                 |
| PMID12917485Sig137| High-Grade Breast Tumors                                                     | Breast Cancer                                 |
| PMID12917485Sig485| Breast Cancer Relapse                                                         | Breast Cancer                                 |
| PMID12917485Sig606| ER+ Breast Tumors                                                            | Breast Cancer                                 |
| PMID12917485Sig706| One of these Six Subgroups of Breast Cancer Tumors: Her-2/neu, Basal-Like 1,| Breast Cancer                                 |
| PMID14737112Sig32 | HMGA1a-Induced Expression Profile                                           | Breast Cancer                                 |
| PMID14871811BCSig39| Breast Carcinomas                                                            | Breast Cancer                                 |
| PMID15073102Sig13 | 13-Gene Signature                                                            | Breast Cancer                                 |
| PMID15073102Sig14 | 14-Gene Signature                                                            | Breast Cancer                                 |
| PMID15073102Sig3  | 3-Gene Signature                                                             | Breast Cancer                                 |
| PMID15073102Sig4  | 4-Gene Signature                                                             | Breast Cancer                                 |
| PMID15073102Sig5  | 5-Gene Signature                                                             | Breast Cancer                                 |
PMID15073102Sig6  6-Gene Signature  Breast Cancer
PMID15136595Sig74  Multigene Predictor of Pathologic Complete Response (pCR) to Sequential Weekly Paclitaxel and Fluorouracil + Doxorubicin + Cyclophosphamide (T/FAC) Neoadjuvant Chemotherapy Regimen for Breast Cancer
PMID15171711Sig96  Estrogen-Stimulated ZR-75-1 Cells  Breast Cancer
PMID15193263Sig2  HOXB13:IL17BR Expression Ratio  Breast Cancer
PMID15235906Sig21  5-year Postoperative Poor Prognosis of Primary Breast Cancers  Breast Cancer
PMID15235906Sig23  5-year Postoperative Good Prognosis of Primary Breast Cancers  Breast Cancer
PMID15254972Sig61  ERα-Positive Cell Lines and Tumor Biopsies  Breast Cancer
PMID15260889Sig681  Immortal Cell Lines  Breast Cancer
PMID15318932Sig50  Ductal Carcinoma in situ (DCIS)  Breast Cancer
PMID15558851Sig10  8-Fold or Greater Change in mRNA Expression between the Tumor and Normal Breast Tissue Genes Located Near the Breakpoint Regions (8p23 and 16q21)  Breast Cancer
PMID15588851Sig4  90-Gene Meta-Signature  Breast Cancer
PMID15598354Sig90  MCF-7 Cells Transfected Overnight with Empty pcDNA3 Vector and Postincubated with Estrogen (E2) (1 μM, 24 h)  Breast Cancer
PMID15637295Sig111  CON (Untransfected) MCF-7 Cells Postincubated with Estrogen (CON+E2) (1 μM, 24 h)  Breast Cancer
PMID15679045Sig13  Breast Cancer Cells Exposed to Dexamethasone (Dex)  Breast Cancer
PMID15681518Sig81  Tamoxifen-Responsive Estrogen Receptor-Positive Primary Breast Carcinomas  Breast Cancer
PMID15721472Sig76  76-Gene Prognostic Signature (for Development of Metastasis) Genes whose Expression is Correlated with that of Neighboring Genes in Infiltrating Ductal Breast Carcinoma  Breast Cancer
PMID15735024Sig3373  Breast cancer cell proliferation signature Breast Cancer
PMID15762987Sig183  Estrogen Receptor Alpha Status Signature  Breast Cancer
PMID15869330Sig786  Stromal Genes Signature  Breast Cancer
PMID15897907Sig3198  Luminal/Apocrine/Basal Gene Set  Breast Cancer
PMID15899795Sig50  Breast cancer all subtypes  Breast Cancer
PMID16091131Sig31  Preoperative Systemic Chemotherapy (PST) with Epirubicin/Cyclophosphamide (EC) Favorable Outcome Signature  Breast Cancer
PMID16115903Sig298  breast cancer all subtypes  Breast Cancer
PMID16141321Sig32  32-gene p53 signature  Breast Cancer
PMID16280042Sig64  64-Gene Set  Breast Cancer
PMID16317158Sig23  Epigallocatechin-3 Gallate (EGCG) Signature  Breast Cancer
PMID16322341Sig69  TGF-β in HER-2 Overexpressing Mesenchymal Tumor Cells  Breast Cancer
PMID16457687Sig76  MDA-MB-231  Breast Cancer
PMID16465392Sig17  AS-raf-ODN Treated (Raf-1 Protein Kinase Inhibited) Cells  Breast Cancer
PMID16478745Sig97  97-Gene List  Breast Cancer
PMID16491069Sig45  Breast Cancer Proliferation Cluster  Breast Cancer
TGFβ Pathway, EMT Control and Cytoskeletal (Re)organization Signature

Estrogen-SAM List

ANOVA-Analysis Output

PAM-Analysis Output

53 Classifier Genes

Genes Involved in Bone Metastasis of Breast Cancer

Single Sample Predictor List of 527 Probe Sets Significantly Differentially Expressed between Medullary and Ductal Breast Cancers

ABC Transporters Selected as Best Classifiers at a Significance Threshold of 0.003 Identities of the 22 Genes Cooperatively Repressed Late in 3D Time Course

List of All 60 3D Differential Genes on Affymetrix HG-U133A and Rosetta Chips

Fibrocytic Breast Cell Line (MCF-10a) Exposed to 10 µM Lycopene for 48 h

10-Probe Set Predictor (DLDA-30)

Top 200 Cox-Ranked Genes

BCMP11/ABCC11 Group 2

BCMP11/ABCC11 Group 1

BCMP11/ABCC11 Group 3

Well-Established Breast Cancer Cell Line with High Metastatic Potential (MDA-MB-435HM)

Cytokeratin induced genes in Basal-Like Cancers Remained Free from Distant Recurrence for 40 Months or Longer

Ductal Carcinoma in situ

Well-Differentiated DCIS

Well/Well-Intermediate-Differentiated DCIS

Poorly-Differentiated DCIS Samples

Consensus Prognostic Gene Expression Classifier for ER-Positive (+) Breast Cancer

Genes in Recurrent Amplicons Associated with Reduced Survival Duration in Breast Cancer

59 RB (Retinoblastoma Tumor Suppressor) Target Genes

Tumor Samples with Somatic Alterations List of Overexpressed Candidate Genes in Breast Cancer Compared to Normal Tissues, Identified by cDNA (EST) and the SAGE DGED from the CGAP Server

SAGE Tags Statistically Significantly Differentially Expressed Between Metastatic CD44+ and CD24+ Cells

ERβ Gene Expression Signature

28-Gene Signature for Breast Cancer Recurrent and Metastatic Potential
| PMID | Title                                                                 | Cancer Type     |
|------|------------------------------------------------------------------------|-----------------|
| 17428335 | PAM Gene List                                                         | Breast Cancer   |
| 17428335 | Overlap Genes                                                          | Breast Cancer   |
| 17428335 | Correlation Genes                                                      | Breast Cancer   |
| 17428335 | SAM Gene List                                                          | Breast Cancer   |
| 17555561 | Pre-Treatment Biopsies of Primary Estrogen Receptor Positive Breast Cancer Patients Assigned to Treatment with Anastrozole or Letrozole for 2 Weeks before Surgery | Breast Cancer   |
| 17640171 | Genistein-Treated HCC1395 Breast Cancer Cells                          | Breast Cancer   |
| 17663798 | Cluster #3 (EGFR-Associated Signature Highly Enriched for Luminal A and B Tumors and Highly Expressed in Most of the HER2+/ER- and Basal-Like Tumors) | Breast Cancer   |
| 17663798 | Cluster #2 (EGFR-Associated Signature Enriched in 58% of All Basal-Like Tumors, 48% of All HER2+/ER- and Basal-Like Tumors) | Breast Cancer   |
| 17663798 | Cluster #1 (EGFR-Associated Signature Enriched in a Mix of Breast Tumors that Contained All Five Breast Cancer Subtypes: Luminal A, Luminal B, Basal-Like, HER2+/ER-, and Normal-Like Samples) Treatment of MCF-7 Cells with 17β-estradiol (E2) and the Extract of Glycyrrhiza glabra root | Breast Cancer   |
| 17685550 | DTC (Disseminated Tumor Cells) Signature                              | Breast Cancer   |
| 17804718 | SV40 T/t-antigen Oncogene Signature                                    | Breast Cancer   |
| 17883867 | 60-Gene Profile                                                        | Breast Cancer   |
| 17885619 | breast cancer with Aromatase Inhibitor Letrozole                      | Breast Cancer   |
| 17899370 | Stromal Fibroblasts Deriving from Malignant Tissue of Women with Invasive Breast Cancer | Breast Cancer   |
| 17952122 | Four Epithelial Genes                                                 | Breast Cancer   |
| 17999412 | Inflammatory Breast Cancer Tumor Stroma                                | Breast Cancer   |
| 18024211 | Cyclophosphamide 35 Probesets                                          | Breast Cancer   |
| 18024211 | Fluorouracil 46 Probesets                                              | Breast Cancer   |
| 18024211 | Docetaxel 47 Probesets                                                 | Breast Cancer   |
| 18024211 | Doxorubicin 74 Probesets                                               | Breast Cancer   |
| 18044827 | One of these Four Main Groups of Tumors: ECM1, ECM2, ECM3, or ECM4     | Breast Cancer   |
| 18199711 | Breast Epithelium of Parous Control Women                              | Breast Cancer   |
| 18231641 | 73-Gene Outcome Signature                                              | Breast Cancer   |
| 18271932 | Predictor Gene Set for TP53 Status                                     | Breast Cancer   |
| 18278552 | Integrated 24-Gene Signature                                           | Breast Cancer   |
| 18304324 | 112-Gene Breast Cancer Prognostic Signature                           | Breast Cancer   |
| 18338247 | Genes Uniquely Regulated by Tamoxifen Estrogen-Regulated Genes that Changed with Aromatase Inhibitor and Aromatase Inhibitor + Tamoxifen Treatment | Breast Cancer   |
| 18338247 | Tamoxifen "Estrogen-Like" Agonist Genes whose Expression Changes with Treatment | Breast Cancer   |
| 18338247 | Endocrine Therapy Response Genes Regulated by Tamoxifen in the Same Manner as Estrogen | Breast Cancer   |
| 18338247 | Genes Expressed Differentially in Nonresponders                        | Breast Cancer   |
Compared to Responders

PMID18347175Sig36 36-Gene PAM Signature Breast Cancer
PMID18360352Sig21 Oncotype DX Breast Cancer Assay Breast Cancer
PMID18366635Sig30 Cyclophosphamide (T/FAC) Breast Cancer
PMID18381933Sig1001 ERBB2-Amplified Ductal Carcinoma in situ Breast Cancer
PMID18366635Sig21 Pathologic Complete Response (PCR) to Weekly Paclitaxel Administration Followed by Chemotherapy with 5-Fluorouracil, Doxorubicin, and
PMID18387200Sig1488 Days Breast Cancer
PMID18414401Sig66 Desmoid-Type Fibromatosis Core Gene Set Breast Cancer
PMID18425577Sig182 ER+/PR+ Signature Breast Cancer
PMID18425577Sig594 ER-PR-_signature_down Breast Cancer
PMID18451222Sig5 Five-Gene Molecular Grade Index Breast Cancer
PMID18498629Sig181 181-Gene Classifier Breast Cancer
PMID18592372Sig2160 ER-Positive (+) Breast Cancer Breast Cancer
PMID18593943Sig5 Chromosome 17 (ERBB2) Cluster Breast Cancer
PMID18593943Sig117 Estrogen Receptor (Luminal) Cluster Breast Cancer
PMID18593943Sig125 Transcription Cluster Breast Cancer
PMID18593943Sig169 Stromal Cluster Breast Cancer
PMID18593943Sig221 Basal-Like Cluster Breast Cancer
PMID18593943Sig276 Normal-Like Cluster Breast Cancer
PMID18593943Sig35 Interferon Cluster Breast Cancer
PMID18593943Sig58 B-Cell Cluster Breast Cancer
PMID18593943Sig94 Proliferation Cluster Breast Cancer
PMID1861214845yoSig50 Age ≤ 45 Years Signature Breast Cancer
PMID1861214865yoSig50 Age ≥ 65 Years Signature Breast Cancer
PMID18625725Sig271 Activated TGF-beta Type I Receptor Signature Breast Cancer
PMID18631401Sig75 Ox-E/ER gene signature Breast Cancer
PMID18662380Sig20 (HER2 Signaling) ERBB2 Coexpression Module Breast Cancer
PMID18698033Sig127 Consensus Signature Breast Cancer
PMID18698033Sig10 CASP3 (Apoptosis) Module Breast Cancer
PMID18698033Sig14 VEGF (Angiogenesis) Module Breast Cancer
PMID18698033Sig229 AURKA (Proliferation) Module Breast Cancer
PMID18698033Sig28 ERBB2 (HER2 Signaling) Module Breast Cancer
PMID18698033Sig469 ESR1 (ER Signaling) Module Breast Cancer
PMID18698033Sig68 PLAU (Tumor Invasion) Module Breast Cancer
PMID18698033Sig95 STAT1 (Immune Response) Module Breast Cancer
PMID18714348Sig22 22-Gene 3D-Signature Breast Cancer
PMID18757322Sig1084 IGF-I Signature Breast Cancer
PMID1876252Sig26 Cell Cycle Gene Signature Breast Cancer
PMID18812439Sig15 miRNA Signature Breast Cancer
PMID18812439Sig52 miRNA Targets Signature Breast Cancer
IBC Signature
41 Breast Cancer–Specific ASEs (Alternative Splicing Events)
Immune Module
RNA Splicing Module
expression Grade Index [25]
217-Gene SAM List
Expression Levels of Genes that are Potentially Involved in the Maintenance of Genomic Stability
Commonly Differentially Expressed Genes for the Comparisons of dGS, aGS, and aGU
Carcinomas
Molecular Signature of Metastasis
PAM50
Tumor Stroma of African-American Patients Independent of the Tumors' ER-Status
Tumor Epithelium of the ER-Negative Tumors of African-American Patients
Tumor Epithelium of the ER-Positive Tumors of African-American Patients
LCM-Dissected Tumor Epithelium of African-American Breast Cancer Patients
Tumor Epithelium of African-American Patients Independent of the Tumors' ER-Status
Exons Located in Unchanged Genes that are Overexpressed in Malignant Tumors with High Splice Indices in Cancer
Genes Overexpressed (More than Two Times) in Breast Cancer Compared with Benign Lesions
Malignancy-Risk Genes with p Value < 0.05
30 Selected Malignancy-Risk Signature Genes
Subset of Malignancy-Risk Genes Associated with DNA Replication, Mitosis, and Cancer Risk
Claudin-Low Gene Cluster
MBC versus Common Breast Tumor Expression Signature
Tumor Metastasis Signature
High-Dose Hyperfractionated Radical Radiotherapy Signature
CD44+/CD24−/low-Mammosphere Gene Signature
Probesets Used for Molecular Subtype Assignment
Residual Breast Cancer before Doxorubicin and Cyclophosphamide Neoadjuvant Chemotherapy
Trastuzumab Response Signature
23-Gene Signature which Predicts Response of Basal-Like Breast Cancer to Neoadjuvant Chemotherapy
Chemotherapy
Good Prognosis Signature
Poor Prognosis Signature
breast cancer signature
8q22 Amplification Signature
HER2+ Subtype Signature
PMID20156340Sig229  ER+/HER2- Subtype Signature  Breast Cancer
PMID20156340Sig63  ER-/HER2- Subtype Signature  Breast Cancer
PMID20158880Sig10  Individual Genes Selected among the TNFAIP1/POLDIP2 SFGM (Structural-Functional Gene Module) and 6 "Neighboring" Genes which Proved to be Survival Significant in at Least One Cohort (P Value ≤ 0.05)  Breast Cancer
PMID20158880StockholmSig11  P Values of Kolmogorov-Smirnov Test of Normality in Stockholm cohort for 5 Genes in SFGM Group Breast Cancer
PMID20158880StockholmSig17  P Values of Kolmogorov-Smirnov Test of Normality in Stockholm Cohort for 17 Genes of ERBB2 Amplicon Breast Cancer
PMID20158880UppsalaSig11  P Values of Kolmogorov-Smirnov Test of Normality in Uppsala cohort for 5 Genes in SFGM Group Breast Cancer
PMID20158880UppsalaSig17  P Values of Kolmogorov-Smirnov Test of Normality in Uppsala Cohort for 17 Genes of ERBB2 Amplicon Breast Cancer
PMID20368555Sig1022  GSE3494 ER Predictor Gene List  Breast Cancer
PMID20368555Sig205  GSE1456 Recurrence Predictor Gene List  Breast Cancer
PMID20368555Sig50  Docetaxel Chemosensitivity Signature Gene List  Breast Cancer
PMID20368555Sig52  Adriamycin Chemosensitivity Signature Gene List  Breast Cancer
PMID20490655Sig368  368-Gene SVM Model  Breast Cancer
PMID20521089Sig12  Genes that Demonstrate Significantly Correlated or Anti-Correlated Expression with CD24 across the Basal B Cell Lines  Breast Cancer
PMID20521089Sig25  Basal B Tumor Signature  Breast Cancer
PMID20521089Sig57  Occurrence of the Epithelial-Mesenchymal Transition in Breast Cancer Cell Lines  Breast Cancer
PMID20697068Sig165  Sensitivity to Endocrine Therapy (SET) Index  Breast Cancer
PMID20713713Sig251  EMT Core Signature CD49f+/EpCAM^low SUM149PT (Basal-Like) Cells  Breast Cancer
PMID20813035Sig1048  Fraction Signature  Breast Cancer
PMID20813035Sig1177  Normal Breast-Like Tumor Signature  Breast Cancer
PMID20813035Sig1275  Luminal Tumor Signature  Breast Cancer
PMID20813035Sig137  Cell Adhesion Genes in Claudin-Low Tumors  Breast Cancer
PMID20813035Sig137  Claudin-Low Tumor Signature  Breast Cancer
PMID20813035Sig1447  Basal-Like Tumor Signature  Breast Cancer
PMID20813035Sig1667  Claudin-Low Tumor Signature  Breast Cancer
PMID20813035Sig19  Luminal Gene Cluster  Breast Cancer
PMID20813035Sig26  Claudin-Low versus Basal-Like Signature  Breast Cancer
PMID20813035Sig41  Proliferation Gene Cluster  Breast Cancer
PMID20813035Sig509  HER2-Enriched Tumor Signature  Breast Cancer
PMID20813035Sig807  Nine-Cell Line Claudin-Low Predictor  Breast Cancer
PMID20932292Sig12  Genes Targeted by the 17q12-q21-Amplicon in IBCs and NIBCs  Breast Cancer
Genes whose Expression Levels were Downregulated and Upregulated in Proportion to DNA Copy Number Losses and Gains (or Amplification), Respectively

Breast Cancer

Genes with Expression Significantly Different in ER- and ER+ ERBB2-Amplified Tumors

Breast Cancer

Copy Number Aberration (CNA) Signature

Breast Cancer

Oncotype DX Colon Cancer Assay

Breast Cancer

Tumor Vascular Endothelial Normalization Signature

Breast Cancer

Cell Cycle and Proliferation Signature

Breast Cancer

Stromal Reaction Signature

Breast Cancer

Wound Response Signature

Breast Cancer

Early Relapse in ER-Negative Breast Cancer Signature

Breast Cancer

Early Relapse in ER-Positive Breast Cancer Signature

Breast Cancer

Excellent Pathologic Response in ER-Positive Breast Cancer Signature

Breast Cancer

Extensive Residual Disease in ER-Negative Breast Cancer Signature

Breast Cancer

Excellent Pathologic Response in ER-Negative Breast Cancer Signature

Breast Cancer

Extensive Residual Disease in ER-Positive Breast Cancer Signature

Breast Cancer

a meta-signature in breast cancer for poor prognosis prediction

Breast Cancer

T-Cell Signature
cell type specific

PMID16704732Sig22

PMID16704732Sig23

PMID16704732Sig41

PMID16704732Sig427

PMID16704732Sig67

PMID11707567CMSig25

PMID17255271Sig19

PMID17255271Sig22

PMID19050079Sig50

PMID19914252Sig34

PMID18470533Sig31

PMID18599519Sig10

PMID18599519Sig12

PMID11807556Sig100

PMID14522886Sig66

PMID11965276Sig125

PMID18714668Sig1658

PMID16467079Sig91

30-Gene Predictor of Recurrence in Early Stage Colon Carcinoma

Colon cancer

34-Gene Recurrence Classifier

Colon cancer

Thirty-One Schizophrenia Susceptibility Genes
diabetic neuropsychiatric disorders

PMID18470533Sig31

gene cluster 2 from Type 1 Diabetes Monocytes

diabetic

PMID18599519Sig10

gene cluster 1 from Monocytes of Bipolar Patients

PMID18599519Sig12

Supervised Learning Outcome Predictor
genes Differentially Expressed in Endometrial Carcinomas

PMID11807556Sig100

PMID14522886Sig66

Gastrointestinal Stromal Tumor Gene Cluster

PMID11965276Sig125

Preliminary Molecular Signature of Acute GVHD in Allogeneic HSCT Patients

GVHD

Preliminary Molecular Signature of Acute GVHD in Allogeneic HSCT Patients

GVHD

91 Top Classifiers for HPV Status by Significance

Head and neck
Analysis of Microarrays

PMID17409455Sig126 HS-up (Hypoxia Score of the up-regulated genes)
PMID17409455Sig68 HS-down (Hypoxia Score of the down-regulated genes)
PMID12648972Sig12 Scoring System for Early Intrahepatic Recurrence
PMID15897992Sig10 HIV Serostatus Predictor Set
PMID15897992Sig6 Decreasing or Increasing CD4+ T Cell Counts
PMID15930270Sig16 Discriminator of Relapse versus CCR in T-ALL
PMID15930270Sig38 Inactivated p53-Associated Proliferation Signature
PMID10521349Sig50 AML-ALL Class Predictor
PMID12086872ALLSig20 Discriminator of Relapse versus CCR in HD Cases
PMID12086872AMLSig20 Discriminator of Relapse versus CCR in T-ALL
PMID12086872Sig7 Discriminator of Relapse versus CCR in T-ALL
PMID12738660Sig35 35 Prognosis-Associated Genes
PMID15084693Sig133 133-Gene Outcome Predictor
PMID15084694Sig180 Inactivated p53-Associated Proliferation Signature
PMID20166207Sig82 GEP of CLL-CECs and nCECs
PMID20564080Sig16 PK Genes Specifically Expressed in B-NEG Patients Versus at Least 2 Other Groups
PMID20564080Sig53 PK Genes Distinctive of Each ALL Subgroup
PMID19514085Sig73 PK Genes Distinctive of Each ALL Subgroup
PMID11707567C1Sig25 Cluster C1 (Proliferation-Related Gene Expression)
PMID11707567C2Sig25 Cluster C2 (Neuroendocrine Gene Expression, Ornithine Decarboxylase 1 and Surfactant Gene Expression)
PMID11707567C3Sig25 Cluster C3 (Ornithine Decarboxylase 1 and Surfactant Gene Expression, Type II Pneumocyte Gene Expression)
PMID11707567C4Sig25 Cluster C4 (Type II Pneumocyte Gene Expression)
PMID11707567GroupISig25 Group I Signature
PMID11707590Sig20 Lung cancer adenocarcinomas signature group 2
PMID11707590Sig217 Lung cancer adenocarcinomas signature all groups
PMID11707590Sig26 Small Cell Tumors
PMID11707590Sig33 Squamous Lung Tumors
PMID11707590Sig38 Large Cell Tumors
PMID11707590Sig39 Lung cancer adenocarcinomas signature group 1
PMID11707590Sig90 Lung cancer adenocarcinomas signature group 3
PMID12036904Sig22 Statistically Significant Genes for DFS from Cox Proportional Hazards Model Testing
PMID12118244Sig100 100 Survival-Related Genes from low risk cancer

PMID17409455 Sig126 Head and neck cancer
PMID17409455 Sig68 Head and neck cancer
PMID12648972 Sig12 Hepatocellular carcinoma
PMID15897992 Sig6 HIV-1 disease
PMID15897992 Sig6 Human disease
PMID15930270 Sig16 Human disease
PMID15930270 Sig38 oncogene alternation
PMID10521349 Sig50 Leukemia
PMID12086872 ALL Sig20 Leukemia
PMID12086872 AML Sig20 Leukemia
PMID12738660 Sig35 Leukemia
PMID15084693 Sig133 Leukemia
PMID15084694 Sig180 Leukemia
PMID20166207 Sig82 Leukemia
PMID20564080 Sig16 Leukemia
PMID20564080 Sig53 Leukemia
PMID19514085 Sig73 Liver cancer
PMID11707567 C1 Sig25 Lung cancer
PMID11707567 C2 Sig25 Lung cancer
PMID11707567 C3 Sig25 Lung cancer
PMID11707567 C4 Sig25 Lung cancer
PMID11707567 Group I Sig25 Lung cancer
PMID11707590 Sig20 Lung cancer adenocarcinomas signature group 2
PMID11707590 Sig217 Lung cancer adenocarcinomas signature all groups
PMID11707590 Sig26 Lung cancer
PMID11707590 Sig33 Lung cancer
PMID11707590 Sig38 Lung cancer
PMID11707590 Sig39 Lung cancer
PMID11707590 Sig90 Lung cancer
PMID12036904 Sig22 Lung cancer
PMID12118244 Sig100 Lung cancer

PMID11707567 Cluster C1 (Proliferation-Related Gene Expression)
PMID11707590 Lung cancer adenocarcinomas signature group 2
PMID11707590 Lung cancer adenocarcinomas signature all groups
PMID11707590 Small Cell Tumors
PMID11707590 Squamous Lung Tumors
PMID11707590 Large Cell Tumors
PMID11707590 Lung cancer adenocarcinomas signature group 1
PMID11707590 Lung cancer adenocarcinomas signature group 3
PMID12036904 Proportional Hazards Model Testing
PMID12118244 100 Survival-Related Genes from low risk cancer
| PMID       | Signature                                                                 | Disease                          |
|------------|---------------------------------------------------------------------------|----------------------------------|
| 14504202   | Lung Cancer Prognosis Signature                                           | Lung cancer                      |
| 14871811   | Lung Adenocarcinomas                                                      | Lung cancer                      |
| 14871811   | Lung Squamous Cell Carcinomas                                             | Lung cancer                      |
| 16049480   | Lung and Bone Metastasis                                                  | Lung cancer                      |
| 16899777   | Metagene 19                                                               | Lung cancer                      |
| 16899777   | Metagene 31                                                               | Lung cancer                      |
| 16899777   | Metagene 35                                                               | Lung cancer                      |
| 16899777   | Metagene 40                                                               | Lung cancer                      |
| 16899777   | Metagene 41                                                               | Lung cancer                      |
| 16899777   | Metagene 69                                                               | Lung cancer                      |
| 16899777   | Metagene 74                                                               | Lung cancer                      |
| 16899777   | Metagene 79                                                               | Lung cancer                      |
| 16899777   | Metagene 86                                                               | Lung cancer                      |
| 17194181   | 64-Gene Expression Signature                                              | Lung cancer                      |
| 17202451   | 16-Gene Signature                                                         | Lung cancer                      |
| 17202451   | Five-Gene Signature                                                       | Lung cancer                      |
| 1867831    | Six-Gene Lung Metastasis Signature                                        | Lung cancer                      |
| 20233996   | Five-Gene Signature of Chen et al for lung cancer prognosis               | Lung cancer                      |
| 12075054   | Poor prognosis signature in large-B-cell lymphoma                         | Lymphoma                         |
| 14961037   | Leukemia/Small Lymphocytic Lymphoma                                        | Lymphoma                         |
| 15115829   | Six-Gene Model                                                            | Lymphoma                         |
| 16760443   | c-myc and Target Genes                                                    | Lymphoma                         |
| 16760443   | NF-κB Target Genes                                                        | Lymphoma                         |
| 16760443   | Germinal-Center B-Cell Genes                                              | Lymphoma                         |
| 16760443   | MHC Class I Genes                                                         | Lymphoma                         |
| 12756227   | Genes expressed in mammosphere-derived cells only                         | Mammary stem cells               |
| 18591436   | Transcriptome-Based Biomarker (TBB) that Predicts Long-Term Clinical Outcome in Patients with New-Onset Heart Failure | New-onset heart failure (HF)     |
| 17079134   | Genes Found Differentially Expressed in HPV-Positive SCCHN versus Normal Oral Epithelium | Oral cancer                      |
| 17079134   | Negative SCCHN versus Normal Oral Epithelium                              | Oral cancer                      |
| 15643601   | Pancreatic Carcinoma Metastasis                                           | Pancreatic cancer                 |
| 12154050   | Profiles                                                                  | Prostate cancer                   |
| 15067324   | Recurrent Human Prostate Tumors                                           | Prostate cancer                   |
| 18006806   | Polycomb Repression Signature                                             | Prostate cancer                   |
| 18505969   | 87-Gene TMPRSS2–ERG Signature                                             | Prostate cancer                   |
| 18846227   | 17 Gene/Probe Model                                                       | Prostate cancer                   |
| 14871811   | Renal Cell Carcinomas                                                    | Renal cancer                      |
| PMID     | Title                                                                 | Disease                                                                 |
|----------|----------------------------------------------------------------------|------------------------------------------------------------------------|
| 12469122 | 17-Gene Signature Associated with Metastasis                          | Solid tumor                                                            |
|          | Sixty-One Genes Differentially Expressed Between                      |                                                                        |
|          | Benign, Borderline, and/or Malignant Thyroid Lesions                  |                                                                        |
| 19658182 | Sixty-One Genes Differentially Expressed Between                      | Thyroid cancer                                                         |
|          | Benign, Borderline, and/or Malignant Thyroid Lesions                  | Werner syndrome (WS)                                                   |
| 14527998 | Normal Old Cells and Werner Syndrome Cells                            |                                                                        |
Table S2. List of validation datasets in breast cancer

| PubMed   | Datasets                        | Total probe number | Total sample number | Clinical endpoints | N/A rate | Differential index |
|----------|---------------------------------|--------------------|---------------------|--------------------|----------|--------------------|
| 21501481 | GSE20685                        | 54619              | 327                 | OS                 | 0%       | 76%                |
| 16141321 | BR1128                          | 22215              | 249                 | DSS                | 0%       | 66%                |
| 18593943 | GSE11121                        | 22215              | 200                 | DMFS               | 0%       | 65%                |
| 20490655 | GSE21653                        | 54613              | 266                 | DFS                | 0%       | 61%                |
| 17079448 | BR1095                          | 22215              | 289                 | DFS                | 0%       | 60%                |
| 17079448 | BR1414                          | 22215              | 147                 | RFS, DFS           | 0%       | 54%                |
| 22522925 | BRMeta3ricV22522925             | 48803              | 995                 | DSS, OS            | 0%       | 53%                |
| 22522925 | BRMeta3ricD22522925             | 48803              | 997                 | DSS, OS            | 0%       | 53%                |
| 15721472 | BR1405                          | 23255              | 286                 | RFS                | 0%       | 48%                |
| 21558518 | GSE25055                        | 22215              | 310                 | DMFS               | 0%       | 46%                |
| 16505416 | BR1224                          | 20024              | 40                  | RFS                | 0%       | 43%                |
| 12490681 | NKI295 BR2411                   | 24481              | 295                 | RFS, DFS, DMFS     | 0%       | 43%                |
| 18498629 | BR1141                          | 22215              | 275                 | RFS, DMFS          | 0%       | 40%                |
| 11823860 | BR544                           | 19517              | 97                  | DMFS               | 0%       | 39%                |
| 17545524 | GSE7390                         | 22215              | 198                 | RFS, DMFS, OS      | 0%       | 36%                |
| 21558518 | GSE25065                        | 22215              | 198                 | DMFS               | 0%       | 34%                |
| 16643655 | BR1552                          | 22575              | 69                  | RFS                | 2%       | 32%                |
| 19204204 | GSE10886                        | 20835              | 197                 | RFS, OS            | 0%       | 30%                |
| 20697068 | GSE17705                        | 22215              | 298                 | DMFS               | 0%       | 28%                |
| 16626501 | GSE2607GPL887                   | 20024              | 50                  | RFS, OS            | 0%       | 17%                |
| 16478745 | BR1042                          | 22215              | 172                 | RFS                | 0%       | 15%                |
| 21115855 | GSE20624                        | 20835              | 293                 | RFS                | 0%       | 9%                 |
| 18347175 | BR18347175                      | 21521              | 155                 | RFS, DFS           | 0%       | 6%                 |
| 20813035 | GSE18229                        | 20835              | 199                 | RFS, OS            | 4%       | 4%                 |
| 18592372 | GSE10510                        | 26581              | 148                 | OS, DFS            | 38%      | 1%                 |
| 17663798 | BR17663798                      | 22575              | 191                 | RFS, DFS           | 42%      | -1%                |
| 20098429 | GSE16446                        | 54613              | 120                 | DMFS, OS           | 0%       | -1%                |
| 16626501 | GSE2607GPL1390                  | 20835              | 64                  | RFS, OS            | 68%      | -3%                |
| 18782450 | BR907                           | 20024              | 94                  | RFS, DFS           | 56%      | -3%                |
| 19435916 | GSE10885                        | 20835              | 119                 | RFS, OS            | 4%       | -15%               |
| 20932292 | GSE17907                        | 24577              | 55                  | DMFS               | 0%       | -19%               |
Table S3. Identification of prognostic signature candidates in breast cancer

| Signature ID          | Significant p values | Signature description                                                                 |
|-----------------------|----------------------|---------------------------------------------------------------------------------------|
| PMID23383020BRmet50   | 74%                  | A meta-signature in breast cancer for poor prognosis prediction                        |
| PMID18271932Sig33     | 68%                  | Predictor Gene Set for TP53 Status                                                     |
| PMID18360352Sig21     | 65%                  | Oncotype DX Breast Cancer Assay                                                       |
| PMID18662380Sig355    | 65%                  | (Proliferation) AURKA Coexpression Module                                              |
| PMID18231641Sig73     | 61%                  | 73-Gene Outcome Signature                                                              |
| PMID16626501Sig53     | 61%                  | 53 Classifier Genes                                                                   |
| PMID15899795Sig50     | 61%                  | Breast cancer cell proliferation signature                                             |
| PMID16280042Sig64     | 58%                  | 64-Gene Set                                                                           |
| PMID17885619Sig143    | 58%                  | Aromatase Inhibitor Letrozole Signature                                               |
| PMID18684329Sig127    | 58%                  | Consensus Signature                                                                   |
| PMID18425577Sig182    | 58%                  | ER+/PR+ Signature                                                                     |
| PMID15598354Sig90     | 58%                  | 90-Gene Meta-Signature                                                                |
| PMID18498629Sig181    | 58%                  | 181-Gene Classifier                                                                  |
| PMID15721472Sig76     | 58%                  | 76-Gene Prognostic Signature (for Development of Metastasis)                          |
| PMID17150101Sig52     | 55%                  | p53 Loss Signature                                                                   |
| PMID20156340Sig229    | 55%                  | ER+/HER2- Subtype Signature                                                           |
| PMID18698033Sig229    | 55%                  | AURKA (Proliferation) Module                                                          |
| PMID18347175Sig36     | 55%                  | 36-Gene PAM Signature                                                                 |
| PMID18338247Sig736    | 55%                  | Genes Expressed Differentially in Nonresponders Compared to Responders                |
| PMID12714683Sig29     | 55%                  | Cluster of 29 Genes Showing Consistent Up-Regulation in IDC                           |
| PMID11707567C1Sig25   | 55%                  | Cluster C1 (Proliferation-Related Gene Expression)                                     |
| PMID17160137Sig59     | 55%                  | 59 RB (Retinoblastoma Tumor Suppressor) Target Genes                                   |
| PMID17883867Sig60     | 52%                  | 60-Gene Profile for recurrence                                                        |
| PMID17079448Sig264    | 52%                  | PAM 264-Gene Classifier                                                               |
| PMID18376897Sig52     | 52%                  | Consensus Prognostic Gene Expression Classifier for ER-Positive (+) Breast Cancer      |
| PMID12714683Sig85     | 52%                  | 85 Genes with Increased Expression in IDC                                              |
| PMID20368555Sig1022   | 52%                  | GSE3494 ER Predictor Gene List                                                        |
| PMID19723662Sig12     | 52%                  | Probesets Used for Molecular Subtype Assignment                                        |
| PMID19225562Sig485    | 52%                  | LCM-dissected breast cancer signatures                                                |
| PMID16491069Sig45     | 52%                  | Breast Cancer Proliferation Cluster                                                   |
| PMID16505416Sig822    | 52%                  | Estrogen-SAM List                                                                     |
| PMID21501481Sig18     | 52%                  | Cell Cycle and Proliferation Signature                                                |
| PMID19014521Sig72     | 52%                  | Cancer proliferation gene set                                                         |
| PMID21501481Sig224    | 52%                  | Wound Response Signature                                                              |
| PMID11823860Sig70     | 52%                  | MammaPrint for metastasis prediction                                                  |
| PMID18593943Sig117    | 52%                  | Estrogen Receptor (Luminal) Cluster                                                   |
| PMID16091131Sig31     | 52%                  | Preoperative Systemic Chemotherapy (PST) with Epirubicin/Cyclophosphamide (EC) Favorable Outcome |
| Gene Symbol | Expression in Cancer | Role in Cancer | Function Category | Function |
|-------------|----------------------|----------------|-------------------|----------|
| UBE2C       | Up¹, ²                | Progression¹, ²| Cell Cycle        |          |
| KIF2C       | Up³                  | Progression⁴  | Cell Cycle        |          |
| TACC3       | Up⁵                 | Progression⁵  | Cell Cycle        |          |
| MAD2L1      | Up⁶                 | Progression⁶  | Cell Cycle        |          |
| AURKA       | Up⁷                 | Progression⁷  | Cell Cycle        |          |
| CEP55       | Up⁸                 | Progression⁹  | Cell Cycle        |          |
| CCNB1       | Up¹⁰                | Progression¹¹ | Cell Cycle        |          |
| RRM2        | Up¹², ¹³             | Progression¹⁴ | Cell Cycle        |          |
| DLGAP5      | Up¹⁵                | Progression¹⁵ | Cell Cycle        |          |
| NEK2        | Up¹⁶                | Progression¹⁷ | Cell Cycle        |          |
| NDC80       | Up¹⁸                | NA*            | Cell Cycle        |          |
| UBE2S       | Up¹⁹                | NA             | Cell Cycle        |          |
| CCNB2       | Up²⁰                | NA             | Cell Cycle        |          |
| KIF20A      | Up²¹                | NA             | Cell Cycle        |          |
| TRIP13      | Up²²                | NA             | Cell Cycle        |          |
| CDKN3       | Up²³                | NA             | Cell Cycle        |          |
| RAD51       | Up²⁴                | Progression²⁴ | DNA Replication   |          |
| KPNA2       | Up²⁵                | Progression²⁵ | DNA Replication   |          |
| TYMS        | Up²⁶                | NA             | DNA Replication   |          |
| CDT1        | Up²⁷                | NA             | DNA Replication   |          |
| FEN1        | Up²⁸                | NA             | DNA Replication   |          |
| RFC4        | Up²⁹                | NA             | DNA Replication   |          |
| EZH2        | Up³⁰                | Progression³⁰ | Proliferation     |          |
| DDX39       | Up³¹                | Progression³¹ | Proliferation     |          |
| GTPBP4      | Down³²              | Suppressor³²   | Proliferation     |          |
| CCT5        | Up³³                | NA             | Protein Folding   |          |
| HJURP       | NA                  | NA             | Cell Cycle        |          |
| SPAG5       | NA                  | NA             | Cell Cycle        |          |
| KIF4A       | NA                  | NA             | Cell Cycle        |          |
| PRC1        | NA                  | NA             | Cell Cycle        |          |
| KIF23       | NA                  | NA             | Cell Cycle        |          |
| NUSAP1      | NA                  | NA             | Cell Cycle        |          |
| CENPN       | NA                  | NA             | Cell Cycle        |          |
| LRP8        | NA                  | NA             | Cell Movement     |          |
| GMPS        | NA                  | NA             | DNA Replication   |          |
| MCM10       | NA                  | NA             | DNA Replication   |          |
| CDC45L      | NA                  | NA             | DNA Replication   |          |
| GARS        | NA                  | NA             | Proliferation     |          |
| C1orf106    | NA                  | NA             | NA                |          |
| BTG2        | Down³⁴              | Suppressor³⁴   | Anti-Proliferation|          |
| SCUBE2      | Down³⁵              | Suppressor³⁵   | Anti-Proliferation|          |
| OGN         | Down³⁶              | NA             | Cellular Assembly | Thioredoxin Fold |
| SH3BGRL     | Down³⁷              | NA             | Proteins          |          |
| COL14A1     | NA                  | NA             | Cellular Assembly |          |
| SPARCL1     | NA                  | NA             | Cellular Assembly |          |
| Gene   | NA1 | NA2 | Function                        |
|--------|-----|-----|---------------------------------|
| RAI2   | NA  | NA  | Proliferation                   |
| KIF13B | NA  | NA  | Cell Movement                   |
|        |     |     | Aamino Acid and                 |
| QDPR   | NA  | NA  | Oxidation                       |
|        |     |     | Lipid Oxidoreductase Activity   |
| ALDH3A2| NA  | NA  | mRNA Stabilization              |

*Up for up-regulation; Down for down-regulation; NA for not available.
Meta-direction: concordant expression direction of the BRmet50 genes.
Table S5. Annotation of genes in PMID18271932Sig33

| Gene Symbol | Expression in Cancer | Role in Cancer | Function Category |
|-------------|----------------------|----------------|-------------------|
| CCNB2* | Up⁸³⁸ | Oncogene⁸³⁸ | Cell cycle |
| CDC45 | Up⁹³⁹ | Growth⁹³⁹ | DNA replication |
| CEP55 | Up⁸⁶⁵ | Antigen⁸⁶⁵ | Cell cycle |
| KIF23 | Up⁴⁰ | Growth⁴⁰ | Cell cycle |
| KIF2C | Up⁴¹ | Progression⁴¹ | Cell cycle |
| PRC1 | Up⁴² | Progression⁴² | Cell cycle |
| UBE2C | Up⁴³ | Progression⁴³ | Ubiquitination |
| ASPM | Up⁴⁵ | Progression⁴⁵ | Cell cycle |
| BCL11A | Up⁴⁶ | Oncogene⁴⁶ | B cell development |
| BIRC5 | Up⁴⁷ | Apoptosis inhibition⁴⁷ | Apoptosis |
| CDCA8 | Up⁴⁸ | Growth⁴⁸ | Cell cycle |
| CENPF | Up⁴⁹ | Oncogene⁵⁰ | Cell cycle |
| HEXIM1 | Up⁵¹ | Progression⁵¹ | Cell cycle |
| MAPRE1 | Up⁵² | Oncogene⁵² | Cell cycle |
| PLK1 | Up⁵³ | Progression⁵³ | Cell cycle |
| PTP4A2 | Up⁵⁴ | Oncogene⁵⁴ | Proliferation |
| PTTG1 | Up⁵⁵ | Oncogene⁵⁵ | Cellular |
| STMN1 | Up⁵⁶ | Progression⁵⁶ | Assembly |
| SULF2 | Up⁵⁸ | Progression⁵⁸ | DNA movement |
| UBE2T | Up⁵⁹ | Progression⁵⁹ | Ubiquitination |
| CENPE | Down⁶¹ | Growth⁶¹ | Cell cycle |
| LIN9 | Down⁶² | Suppressor⁶² | DNA replication |
| RPS27L | Down⁶³ | Growth⁶³ | Apoptosis |
| TMEM25 | Down⁶⁵ | Biomarker⁶⁵ | NA |
| C15orf42 | NA | NA | NA |
| C3orf18 | NA | NA | NA |
| FAM63A | NA | NA | NA |
| FANCI | NA | NA | DNA repair |
| MKNK2 | NA | NA | Proliferation |
| MUTYH | NA | NA | DNA repair |
| PKMYT1 | NA | NA | Cell cycle |
| RILPL2 | NA | NA | NA |

* Seven common gene symbols between BRmet50 and PMID18271932Sig33 are underlined.
Table S6. TP53, ER, PR, and HER2 statuses in TCGA tumor samples.

| TCGA Sample ID | TP53 Mutation | TP53 Color | TP53 Mutation | TP53 Color | TP53 Mutation | TP53 Color | ER | PR | HER2 | SUBTYPE | SUBTYPE |
|----------------|---------------|------------|---------------|------------|---------------|------------|-----|----|------|---------|---------|
| TCGA-AC-A23C   | R174fs        | RED        |               |            |               |            | Positive | Positive | Positive | ER/HER2 | PURPLE  |
| TCGA-E2-A15E   | H193R         | RED        |               |            |               |            | Positive | Positive | Positive | ER/HER2 | PURPLE  |
| TCGA-E9-A1N5   | H193R         | RED        |               |            |               |            | Positive | Positive | Positive | ER/HER2 | PURPLE  |
| TCGA-A2-A0EY   | Y234C         | RED        |               |            |               |            | Positive | Negative | Positive | ER/HER2 | PURPLE  |
| TCGA-D8-A1X5   | C238F         | RED        |               |            |               |            | Positive | Positive | Positive | ER/HER2 | PURPLE  |
| TCGA-D8-A1XA   | R306*         | RED        |               |            |               |            | Positive | Positive | Equivocal | ER/HER2 | PURPLE  |
| TCGA-BH-A1FE   | N247I         | RED        |               |            |               |            | Positive | Positive | NA      | ER/HER2 | PURPLE  |
| TCGA-BH-A18H   | Q331*         | RED        |               |            |               |            | Positive | Positive | Positive | ER/HER2 | PURPLE  |
| TCGA-A8-A08H   | WT            | WHITE      |               |            |               |            | Positive | Positive | Positive | ER/HER2 | PURPLE  |
| TCGA-A8-A07P   | WT            | WHITE      |               |            |               |            | Positive | Positive | Positive | ER/HER2 | PURPLE  |
| TCGA-D8-A140   | WT            | WHITE      |               |            |               |            | Positive | Positive | Positive | ER/HER2 | PURPLE  |
| TCGA-GM-A2DA   | WT            | WHITE      |               |            |               |            | Positive | Positive | Positive | ER/HER2 | PURPLE  |
| TCGA-B6-A0WZ   | WT            | WHITE      |               |            |               |            | Positive | Positive | NA      | ER/HER2 | PURPLE  |
| TCGA-B6-A0IP   | WT            | WHITE      |               |            |               |            | Positive | Positive | NA      | ER/HER2 | PURPLE  |
| TCGA-A8-A099   | WT            | WHITE      |               |            |               |            | Positive | Positive | Positive | ER/HER2 | PURPLE  |
| TCGA-A8-A08C   | WT            | WHITE      |               |            |               |            | Positive | Positive | Positive | ER/HER2 | PURPLE  |
| TCGA-B6-A0IC   | WT            | WHITE      |               |            |               |            | Positive | Positive | NA      | ER/HER2 | PURPLE  |
| TCGA-C8-A133   | WT            | WHITE      |               |            |               |            | Positive | Positive | Positive | ER/HER2 | PURPLE  |
| TCGA-B6-A0X4   | WT            | WHITE      |               |            |               |            | Positive | Positive | NA      | ER/HER2 | PURPLE  |
| TCGA-B6-A0WS   | WT            | WHITE      |               |            |               |            | Positive | Positive | NA      | ER/HER2 | PURPLE  |
| TCGA-AR-A1AX   | WT            | WHITE      |               |            |               |            | Positive | Positive | Positive | ER/HER2 | PURPLE  |
| TCGA-A8-A0AB   | WT            | WHITE      |               |            |               |            | Positive | Positive | Positive | ER/HER2 | PURPLE  |
| TCGA-C8-A132   | WT            | WHITE      |               |            |               |            | Positive | Positive | NA      | ER/HER2 | PURPLE  |
| TCGA-B6-A0WT   | WT            | WHITE      |               |            |               |            | Positive | Positive | NA      | ER/HER2 | PURPLE  |
| TCGA-BH-A18I   | WT            | WHITE      |               |            |               |            | Positive | Positive | Positive | ER/HER2 | PURPLE  |
| TCGA-BH-A18M   | WT            | WHITE      |               |            |               |            | Positive | Positive | Positive | ER/HER2 | PURPLE  |
| TCGA-B6-A0IH   | WT            | WHITE      |               |            |               |            | Positive | Positive | NA      | ER/HER2 | PURPLE  |
| TCGA-A8-A08T   | WT            | WHITE      |               |            |               |            | Positive | Positive | Positive | ER/HER2 | PURPLE  |
| TCGA-AN-A0FK   | WT            | WHITE      |               |            |               |            | Positive | Positive | Positive | ER/HER2 | PURPLE  |
| TCGA-E2-A1B1   | WT            | WHITE      |               |            |               |            | Positive | Positive | Positive | ER/HER2 | PURPLE  |
| TCGA-E2-A1IH   | WT            | WHITE      |               |            |               |            | Positive | Positive | Equivocal | ER/HER2 | PURPLE  |
| TCGA-D8-A1JB   | WT            | WHITE      |               |            |               |            | Positive | Positive | Positive | ER/HER2 | PURPLE  |
| TCGA-AN-A041   | WT            | WHITE      |               |            |               |            | Positive | Negative | Positive | ER/HER2 | PURPLE  |
| TCGA-AN-A03X   | WT            | WHITE      |               |            |               |            | Positive | Positive | Positive | ER/HER2 | PURPLE  |
| TCGA-E9-A22E   | WT            | WHITE      |               |            |               |            | Positive | Positive | Positive | ER/HER2 | PURPLE  |
| TCGA-B6-A0I5   | WT            | WHITE      |               |            |               |            | Positive | Positive | NA      | ER/HER2 | PURPLE  |
| TCGA-B6-A0X0   | WT            | WHITE      |               |            |               |            | Positive | Positive | NA      | ER/HER2 | PURPLE  |
| TCGA-A8-A08S   | WT            | WHITE      |               |            |               |            | Positive | Positive | Positive | ER/HER2 | PURPLE  |
| TCGA-AN-A0XP   | WT            | WHITE      |               |            |               |            | Positive | Positive | Positive | ER/HER2 | PURPLE  |
| TCGA-BH-A1FL   | WT            | WHITE      |               |            |               |            | Positive | Positive | NA      | ER/HER2 | PURPLE  |
| TCGA-A7-A26H   | WT            | WHITE      |               |            |               |            | Positive | Negative | Positive | ER/HER2 | PURPLE  |
| TCGA-AN-A0FS   | WT            | WHITE      |               |            |               |            | Positive | Negative | Positive | ER/HER2 | PURPLE  |
| TCGA-BH-A1FR | WT       | WHITE | Positive | Positive | NA  | ER/HER2 | PURPLE |
|-------------|----------|-------|----------|----------|-----|---------|--------|
| TCGA-B6-A0RV | WT       | WHITE | Positive | Positive | NA  | ER/HER2 | PURPLE |
| TCGA-E9-A295 | WT       | WHITE | Positive | Positive | Positive | ER/HER2 | PURPLE |
| TCGA-A8-A06T | WT       | WHITE | Positive | Positive | Positive | ER/HER2 | PURPLE |
| TCGA-B6-A0RP | WT       | WHITE | Positive | Positive | NA  | ER/HER2 | PURPLE |
| TCGA-C8-A1HE | WT       | WHITE | Positive | Positive | Equivocal | ER/HER2 | PURPLE |
| TCGA-BH-A0BQ | WT       | WHITE | Positive | Positive | Positive | ER/HER2 | PURPLE |
| TCGA-B6-A0X7 | WT       | WHITE | Positive | Positive | NA  | ER/HER2 | PURPLE |
| TCGA-AN-A0FN | WT       | WHITE | Positive | Positive | Positive | ER/HER2 | PURPLE |
| TCGA-AC-A23G | WT       | WHITE | Positive | Positive | Positive | ER/HER2 | PURPLE |
| TCGA-BH-A0B6 | WT       | WHITE | Positive | Positive | Positive | ER/HER2 | PURPLE |
| TCGA-AC-A23E | WT       | WHITE | Positive | Positive | Negative | ER GREEN |
| TCGA-E2-A3DX | WT       | WHITE | Positive | Positive | Negative | ER GREEN |
| TCGA-BH-A0C3 | G187S | RED   | Positive | Negative | Negative | ER GREEN |
| TCGA-AN-A046 | E11K | RED   | Positive | Positive | Negative | ER GREEN |
| TCGA-BH-A0B6 | WT       | WHITE | Positive | Positive | Positive | ER/HER2 | PURPLE |
| TCGA-AC-A23E | WT       | WHITE | Positive | Positive | NA  | ER/HER2 | PURPLE |
| TCGA-E2-A3DX | WT       | WHITE | Positive | Positive | Positive | ER/HER2 | PURPLE |
| TCGA-AQ-A0Y5 | WT       | WHITE | Positive | Positive | Positive | ER/HER2 | PURPLE |
| TCGA-B6-A0RQ | WT       | WHITE | Positive | Positive | NA  | ER/HER2 | PURPLE |
| TCGA-BH-A0W5 | WT       | WHITE | Positive | Positive | Equivocal | ER/HER2 | PURPLE |
| TCGA-AR-A1AW | R273C | RED   | Positive | Positive | Positive | ER GREEN |
| TCGA-E9-A1NF | F113C | RED   | Positive | Positive | Negative | ER GREEN |
| TCGA-BH-A0C3 | G187S | RED   | Positive | Negative | Negative | ER GREEN |
| TCGA-AN-A046 | E11K | RED   | Positive | Positive | Negative | ER GREEN |
| TCGA-BH-A1EY | Y126C | RED   | Positive | Positive | Negative | ER GREEN |
| TCGA-AR-A1AN | R110fs | RED   | Positive | Positive | Negative | ER GREEN |
| TCGA-BH-A0B0 | R175H | RED   | Positive | Positive | Negative | ER GREEN |
| TCGA-A7-A3RF | R273H | RED   | Positive | Positive | Negative | ER GREEN |
| TCGA-BH-A0BT | R158G | RED   | Positive | Positive | Negative | ER GREEN |
| TCGA-AR-A1AS | R175H | RED   | Positive | Positive | Negative | ER GREEN |
| TCGA-BH-A0BC | R248W | RED   | Positive | Positive | Negative | ER GREEN |
| TCGA-AR-A1AP | R196* | RED   | Positive | Positive | Negative | ER GREEN |
| TCGA-E2-A108 | R273H | RED   | Positive | Positive | Negative | ER GREEN |
| TCGA-AN-A0AS | R110del | RED   | Positive | Positive | Negative | ER GREEN |
| TCGA-AR-A24T | R273H | RED   | Positive | Positive | Negative | ER GREEN |
| TCGA-E2-A1IN | V157G | RED   | Positive | Positive | Negative | ER GREEN |
| TCGA-AN-A0XT | Y126_splice | RED   | Positive | Negative | Negative | ER GREEN |
| TCGA-BH-A0BP | K132N | RED   | Positive | Positive | Negative | ER GREEN |
| TCGA-E2-A1JO | P190fs | RED   | Positive | Positive | Negative | ER GREEN |
| TCGA-BH-A0DI | I255N | RED   | Positive | Positive | Negative | ER GREEN |
| TCGA-D8-A1XR | WT       | WHITE | Positive | Positive | Negative | ER GREEN |
| TCGA-BH-A0C1 | WT       | WHITE | Positive | Positive | Negative | ER GREEN |
| TCGA-A8-A07F | WT       | WHITE | Positive | Positive | Negative | ER GREEN |
| TCGA-E2-A15L | WT       | WHITE | Positive | Positive | Negative | ER GREEN |
| TCGA-BH-A0DG | WT       | WHITE | Positive | Negative | Negative | ER GREEN |
| TCGA-EW-A1J1 | WT       | WHITE | Positive | Positive | Negative | ER GREEN |
| TCGA-AR-A24O | WT       | WHITE | Positive | Positive | Negative | ER GREEN |
| TCGA-BH-A1ET | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-AO-A12B | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-D8-A1JI | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-GM-A2DC | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-C8-A12M | WT | WHITE | Positive | Negative | Negative | ER | GREEN |
| TCGA-A8-A06Y | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-AC-A2QI | WT | WHITE | Positive | Negative | Negative | ER | GREEN |
| TCGA-AN-A0XO | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-A8-A06Y | WT | WHITE | Positive | Negative | Negative | ER | GREEN |
| TCGA-A8-A09K | WT | WHITE | Positive | Negative | Negative | ER | GREEN |
| TCGA-AR-A1AU | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-AN-A0FF | WT | WHITE | Positive | Negative | Negative | ER | GREEN |
| TCGA-A1-A0SQ | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-BH-A0DX | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-A1-A0SE | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-EW-A1P6 | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-A1-A0SB | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-A1-A0SF | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-A1-A0SE | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA  | Platelet | Condition | Expression | Status | ER | Color |
|-------|----------|-----------|------------|--------|----|-------|
| AR-A2LL | WT      | WHITE     | Positive   | Positive | Negative | ER | GREEN |
| BH-A0H4W | WT    | WHITE     | Positive   | Negative | Negative | ER | GREEN |
| A8-A08O | WT     | WHITE     | Positive   | Positive | Negative | ER | GREEN |
| A8-A0A9 | WT     | WHITE     | Positive   | Positive | Negative | ER | GREEN |
| E2-A15F | WT     | WHITE     | Positive   | Positive | Negative | ER | GREEN |
| D8-A1X7 | WT     | WHITE     | Positive   | Positive | Negative | ER | GREEN |
| AO-A0JI | WT     | WHITE     | Positive   | Negative | Negative | ER | GREEN |
| E9-A1R2 | WT     | WHITE     | Positive   | Negative | Negative | ER | GREEN |
| A8-A06N | WT     | WHITE     | Positive   | Positive | Negative | ER | GREEN |
| BH-A1F5 | WT     | WHITE     | Positive   | Positive | Negative | ER | GREEN |
| D8-A1X8 | WT     | WHITE     | Positive   | Indeterminate | Negative | ER | GREEN |
| A8-A0A2 | WT     | WHITE     | Positive   | Positive | Negative | ER | GREEN |
| BH-A0DE | WT     | WHITE     | Positive   | Positive | Negative | ER | GREEN |
| AO-A12G | WT     | WHITE     | Positive   | Positive | Negative | ER | GREEN |
| BH-A0AY | WT     | WHITE     | Positive   | Positive | Negative | ER | GREEN |
| A2-A0T7 | WT     | WHITE     | Positive   | Positive | Negative | ER | GREEN |
| BH-A0BF | WT     | WHITE     | Positive   | Positive | Negative | ER | GREEN |
| BH-A18K | WT     | WHITE     | Positive   | Positive | Negative | ER | GREEN |
| B6-A0JO | WT     | WHITE     | Positive   | Indeterminate | Negative | ER | GREEN |
| A1-A0SF | WT     | WHITE     | Positive   | Positive | Negative | ER | GREEN |
| AR-A2LO | WT     | WHITE     | Positive   | Positive | Negative | ER | GREEN |
| A2-A0YL | WT     | WHITE     | Positive   | Positive | Negative | ER | GREEN |
| AO-A0J5 | WT     | WHITE     | Positive   | Negative | Negative | ER | GREEN |
| BH-A0BV | WT     | WHITE     | Positive   | Positive | Negative | ER | GREEN |
| BH-A18J | WT     | WHITE     | Positive   | Positive | Negative | ER | GREEN |
| BH-A0BA | WT     | WHITE     | Positive   | Positive | Negative | ER | GREEN |
| A8-A0A6 | WT     | WHITE     | Positive   | Positive | Negative | ER | GREEN |
| BH-A0BJ | WT     | WHITE     | Positive   | Positive | Negative | ER | GREEN |
| BH-A1EU | WT     | WHITE     | Positive   | Positive | Negative | ER | GREEN |
| AN-A0XL | WT     | WHITE     | Positive   | Positive | Negative | ER | GREEN |
| BH-A0DP | WT     | WHITE     | Positive   | Positive | Negative | ER | GREEN |
| D8-A1XO | WT     | WHITE     | Positive   | Positive | Negative | ER | GREEN |
| BH-A0E9 | WT     | WHITE     | Positive   | Positive | Negative | ER | GREEN |
| A7-A26E | WT     | WHITE     | Positive   | Positive | Negative | ER | GREEN |
| D8-A27V | WT     | WHITE     | Positive   | Positive | Negative | ER | GREEN |
| AR-A252 | WT     | WHITE     | Positive   | Positive | Negative | ER | GREEN |
| A2-A1FV | WT     | WHITE     | Positive   | Positive | Negative | ER | GREEN |
| BH-A1EX | WT     | WHITE     | Positive   | Positive | Negative | ER | GREEN |
| A1-A0SD | WT     | WHITE     | Positive   | Positive | Negative | ER | GREEN |
| AC-A2B8 | WT     | WHITE     | Positive   | Positive | Negative | ER | GREEN |
| Sample ID      | Genotype | FlowState1 | FlowState2 | FlowState3 | ER Status | Subtype   | Color   |
|---------------|----------|------------|------------|------------|-----------|-----------|---------|
| TCGA-BH-A1EO  | WT       | WHITE      | Positive   | Positive   | Negative  | ER        | GREEN   |
| TCGA-C8-A1HI  | WT       | WHITE      | Positive   | Positive   | Negative  | ER        | GREEN   |
| TCGA-BH-A0GZ  | WT       | WHITE      | Positive   | Positive   | Negative  | ER        | GREEN   |
| TCGA-D8-A1X6  | WT       | WHITE      | Positive   | Positive   | Negative  | ER        | GREEN   |
| TCGA-AR-A1AK  | WT       | WHITE      | Positive   | Positive   | Negative  | ER        | GREEN   |
| TCGA-E2-A10F  | WT       | WHITE      | Positive   | Positive   | Negative  | ER        | GREEN   |
| TCGA-E2-A1L9  | WT       | WHITE      | Positive   | Positive   | Negative  | ER        | GREEN   |
| TCGA-D8-A1JE  | WT       | WHITE      | Positive   | Positive   | Negative  | ER        | GREEN   |
| TCGA-AR-A24V  | WT       | WHITE      | Positive   | Positive   | Negative  | ER        | GREEN   |
| TCGA-A2-A0T5  | WT       | WHITE      | Positive   | Positive   | Negative  | ER        | GREEN   |
| TCGA-A2-A0CQ  | WT       | WHITE      | Positive   | Positive   | Negative  | ER        | GREEN   |
| TCGA-BH-A0DT  | WT       | WHITE      | Positive   | Positive   | Negative  | ER        | GREEN   |
| TCGA-BH-A28Q  | WT       | WHITE      | Positive   | Positive   | Indeterminate | ER   | GREEN   |
| TCGA-A2-A0CQ  | WT       | WHITE      | Positive   | Positive   | Negative  | ER        | GREEN   |
| TCGA-BH-A00H  | WT       | WHITE      | Positive   | Positive   | Negative  | ER        | GREEN   |
| TCGA-AO-A0J9  | WT       | WHITE      | Positive   | Positive   | Negative  | ER        | GREEN   |
| TCGA-BH-A0W7  | WT       | WHITE      | Positive   | Positive   | Negative  | ER        | GREEN   |
| TCGA-GM-A22D  | WT       | WHITE      | Positive   | Negative   | Negative  | ER        | GREEN   |
| TCGA-A8-A09T  | WT       | WHITE      | Positive   | Positive   | Negative  | ER        | GREEN   |
| TCGA-EW-A1P5  | WT       | WHITE      | Positive   | Positive   | Negative  | ER        | GREEN   |
| TCGA-A2-A0SU  | WT       | WHITE      | Positive   | Positive   | Negative  | ER        | GREEN   |
| TCGA-A2-A03P  | WT       | WHITE      | Positive   | Positive   | Negative  | ER        | GREEN   |
| TCGA-A2-A0CD  | WT       | WHITE      | Positive   | Positive   | Negative  | ER        | GREEN   |
| TCGA-EW-A1OX  | WT       | WHITE      | Positive   | Positive   | Negative  | ER        | GREEN   |
| TCGA-BH-A0BS  | WT       | WHITE      | Positive   | Positive   | Negative  | ER        | GREEN   |
| TCGA-E2-A1L6  | WT       | WHITE      | Positive   | Positive   | Negative  | ER        | GREEN   |
| TCGA-D8-A1XV  | WT       | WHITE      | Positive   | Positive   | Negative  | ER        | GREEN   |
| TCGA-A8-A093  | WT       | WHITE      | Positive   | Positive   | Negative  | ER        | GREEN   |
| TCGA-D8-A1XG  | WT       | WHITE      | Positive   | Negative   | Negative  | ER        | GREEN   |
| TCGA-A8-A09V  | WT       | WHITE      | Positive   | Positive   | Negative  | ER        | GREEN   |
| TCGA-A8-A096  | WT       | WHITE      | Positive   | Positive   | Negative  | ER        | GREEN   |
| TCGA-GM-A2DN  | WT       | WHITE      | Positive   | Positive   | Negative  | ER        | GREEN   |
| TCGA-AO-A0JJ  | WT       | WHITE      | Positive   | Positive   | Negative  | ER        | GREEN   |
| TCGA-E2-A10B  | WT       | WHITE      | Positive   | Positive   | Negative  | ER        | GREEN   |
| TCGA-A2-A0ET  | WT       | WHITE      | Positive   | Positive   | Negative  | ER        | GREEN   |
| TCGA-AR-A1AL  | WT       | WHITE      | Positive   | Positive   | Negative  | ER        | GREEN   |
| TCGA-A2-A0EM  | WT       | WHITE      | Positive   | Positive   | Negative  | ER        | GREEN   |
| TCGA-E2-A1L8  | WT       | WHITE      | Positive   | Positive   | Negative  | ER        | GREEN   |
| TCGA-BH-A0H9  | WT       | WHITE      | Positive   | Positive   | Negative  | ER        | GREEN   |
| TCGA-AN-A0XV | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-A7-A3J0 | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-D8-A27G | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-C8-A12X | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-A7-A0CG | WT | WHITE | Positive | Negative | Negative | ER | GREEN |
| TCGA-A2-A1FZ | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-D8-A27I | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-A7-A3J1 | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-A8-A0AD | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-E2-A154 | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-BH-A1FG | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-E2-A1IL | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-E2-A15P | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-E2-A1BD | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-E2-A1IF | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-A2-A3KD | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-AO-A125 | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-A8-A09B | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-E2-A15J | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-A2-A3J1 | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-AR-A2LE | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-AC-A2FG | WT | WHITE | Positive | Negative | Negative | ER | GREEN |
| TCGA-A7-A0DB | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-D8-A1XU | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-BH-A0HQ | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-D8-A146 | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-A2-A0YI | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-BH-A0H3 | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-AC-A2FO | WT | WHITE | Positive | Negative | Indeterminate | ER | GREEN |
| TCGA-AC-A3BB | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-A8-A08A | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-E2-A11J | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-AR-A2LM | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-BH-A0EA | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-E2-A15D | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-EW-A1J2 | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-A8-A09Z | WT | WHITE | Positive | Negative | Negative | ER | GREEN |
| TCGA-E2-A1B4 | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-A1-A0SG | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-BH-A0E7 | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-A8-A06P | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-A7-A0D9 | WT | WHITE | Positive | Negative | Negative | ER | GREEN |
| TCGA-GM-A2D9 | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-BH-A0H6 | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-BH-A0BM | WT | WHITE | Positive | Negative | Negative | ER | GREEN |
| TCGA-A2-A04N | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-EW-A1IX | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| Sample ID    | Genotype | ER Status | ER Status | ER Status | ER Status |
|-------------|----------|-----------|-----------|-----------|-----------|
| TCGA-A2-A0EW | WT       | WHITE     | Positive  | Positive  | Negative  |
| TCGA-A2-A0T6 | WT       | WHITE     | Positive  | Positive  | Negative  |
| TCGA-E2-A1BC | WT       | WHITE     | Positive  | Positive  | Negative  |
| TCGA-GM-A2DM | WT       | WHITE     | Positive  | Positive  | Negative  |
| TCGA-E2-A14U | WT       | WHITE     | Positive  | Positive  | Negative  |
| TCGA-BH-A0DQ | WT       | WHITE     | Positive  | Positive  | Negative  |
| TCGA-A2-A0EU | WT       | WHITE     | Positive  | Positive  | Negative  |
| TCGA-A8-A091 | WT       | WHITE     | Positive  | Positive  | Negative  |
| TCGA-E2-A153 | WT       | WHITE     | Positive  | Positive  | Negative  |
| TCGA-A2-A0CP | WT       | WHITE     | Positive  | Positive  | Negative  |
| TCGA-E9-A227 | WT       | WHITE     | Positive  | Positive  | Negative  |
| TCGA-BH-A0W4 | WT       | WHITE     | Positive  | Positive  | Negative  |
| TCGA-BH-A0EI | WT       | WHITE     | Positive  | Positive  | Negative  |
| TCGA-E2-A11G | WT       | WHITE     | Positive  | Positive  | Negative  |
| TCGA-BH-A0AZ | WT       | WHITE     | Positive  | Positive  | Negative  |
| TCGA-E9-A1NG | WT       | WHITE     | Positive  | Positive  | Negative  |
| TCGA-A2-A0CV | WT       | WHITE     | Positive  | Positive  | Negative  |
| TCGA-A2-A0CS | WT       | WHITE     | Positive  | Positive  | Negative  |
| TCGA-BH-A0EB | WT       | WHITE     | Positive  | Positive  | Negative  |
| TCGA-B6-A1KI | WT       | WHITE     | Positive  | Positive  | Negative  |
| TCGA-BH-A0H5 | WT       | WHITE     | Positive  | Positive  | Negative  |
| TCGA-E2-A1B5 | WT       | WHITE     | Positive  | Positive  | Negative  |
| TCGA-A2-A25A | WT       | WHITE     | Positive  | Positive  | Negative  |
| TCGA-AO-A0JF | WT       | WHITE     | Positive  | Positive  | Negative  |
| TCGA-A8-A07G | WT       | WHITE     | Positive  | Positive  | Negative  |
| TCGA-A2-A1G0 | WT       | WHITE     | Positive  | Positive  | Negative  |
| TCGA-D8-A145 | WT       | WHITE     | Positive  | Positive  | Negative  |
| TCGA-D8-A141 | WT       | WHITE     | Positive  | Positive  | Negative  |
| TCGA-A2-A0EO | WT       | WHITE     | Positive  | Positive  | Negative  |
| TCGA-BH-A0DV | WT       | WHITE     | Positive  | Positive  | Negative  |
| TCGA-E2-A15C | WT       | WHITE     | Positive  | Positive  | Negative  |
| TCGA-A2-A0EX | WT       | WHITE     | Positive  | Positive  | Negative  |
| TCGA-D8-A1JH | WT       | WHITE     | Positive  | Positive  | Negative  |
| TCGA-A8-A07J | WT       | WHITE     | Positive  | Positive  | Negative  |
| TCGA-GI-A2C8 | WT       | WHITE     | Positive  | Positive  | Negative  |
| TCGA-A2-A259 | WT       | WHITE     | Positive  | Positive  | Negative  |
| TCGA-BH-A0BO | WT       | WHITE     | Positive  | Positive  | Negative  |
| TCGA-AR-A24W | WT       | WHITE     | Positive  | Positive  | Negative  |
| TCGA-EW-A1PG | WT       | WHITE     | Positive  | Positive  | Negative  |
| TCGA-D8-A1JU | WT       | WHITE     | Positive  | Positive  | Negative  |
| TCGA-AC-A2FK | WT       | WHITE     | Positive  | Positive  | Negative  |
| TCGA-A2-A0ES | WT       | WHITE     | Positive  | Positive  | Negative  |
| TCGA-A2-A0YK | WT       | WHITE     | Positive  | Positive  | Negative  |
| TCGA-BH-A1FH | WT       | WHITE     | Positive  | Negative  | NA        |
| TCGA-AR-A2LQ | WT       | WHITE     | Positive  | Positive  | Negative  |
| TCGA-AC-A2FF | WT       | WHITE     | Positive  | Positive  | Negative  |
| TCGA-B6-A0WY | WT       | WHITE     | Positive  | Negative  | NA        |
| Sample ID     | Genotype | Mutation Type | Germline Status | Tumor Status | ER Status | TNBC Status |
|---------------|----------|---------------|-----------------|-------------|-----------|-------------|
| TCGA-D8-A27L  | WT       | WHITE         | Positive        | Positive     | Negative  | ER          |
| TCGA-A2-A0EN  | WT       | WHITE         | Positive        | Positive     | Negative  | ER          |
| TCGA-BH-A208  | G187_splice | RED          | NA              | NA          | NA        | TNBC        |
| TCGA-GM-A2DI  | S260fs   | RED           | Negative        | Negative     | Negative  | TNBC        |
| TCGA-AO-A03U  | WT       | WHITE         | Negative        | Negative     | Negative  | TNBC        |
| TCGA-EW-A1P7  | WT       | WHITE         | Negative        | Negative     | Negative  | TNBC        |
| TCGA-AR-A2LH  | WT       | WHITE         | Negative        | Negative     | Negative  | TNBC        |
| TCGA-EW-A1OV  | WT       | WHITE         | Negative        | Negative     | Negative  | TNBC        |
| TCGA-A2-A1G6  | WT       | WHITE         | Negative        | Negative     | Negative  | TNBC        |
| TCGA-EW-A1P1  | WT       | WHITE         | Negative        | Negative     | Negative  | TNBC        |
| TCGA-OL-A5RY  | H179Q    | RED           | NA              | NA          | NA        | NA          |
| TCGA-AC-A3OD  | Q144*    | RED           | NA              | NA          | NA        | NA          |
| TCGA-PE-A5DE  | M169I    | RED           | NA              | NA          | NA        | NA          |
| TCGA-BH-A5J0  | E285K    | RED           | NA              | NA          | NA        | NA          |
| TCGA-B6-A401  | R175H    | RED           | NA              | NA          | NA        | NA          |
| TCGA-OL-A5D6  | C242G    | RED           | NA              | NA          | NA        | NA          |
| TCGA-AC-A5EH  | L194R    | RED           | NA              | NA          | NA        | NA          |
| TCGA-E9-A5UO  | WT       | WHITE         | NA              | NA          | NA        | NA          |
| TCGA-E9-A245  | WT       | WHITE         | NA              | NA          | NA        | NA          |
| TCGA-E9-A5UP  | WT       | WHITE         | NA              | NA          | NA        | NA          |
| TCGA-GM-A3NY  | WT       | WHITE         | NA              | NA          | NA        | NA          |
| TCGA-AC-A3W7  | WT       | WHITE         | NA              | NA          | NA        | NA          |
| TCGA-B6-A40B  | WT       | WHITE         | NA              | NA          | NA        | NA          |
| TCGA-E9-A54X  | WT       | WHITE         | NA              | NA          | NA        | NA          |
| TCGA-A2-A0CK  | WT       | WHITE         | NA              | NA          | NA        | NA          |
| TCGA-A7-A13H  | WT       | WHITE         | NA              | NA          | NA        | NA          |
| TCGA-AR-A1AM  | WT       | WHITE         | NA              | NA          | NA        | NA          |
| TCGA-AC-A3EH  | WT       | WHITE         | NA              | NA          | NA        | NA          |
| TCGA-MS-A51U  | WT       | WHITE         | NA              | NA          | NA        | NA          |
| TCGA-A2-A4S0  | WT       | WHITE         | NA              | NA          | NA        | NA          |
| TCGA-LL-A50Y  | WT       | WHITE         | NA              | NA          | NA        | NA          |
| TCGA-AC-A3TN  | WT       | WHITE         | NA              | NA          | NA        | NA          |
| TCGA-D8-A3Z6  | WT       | WHITE         | NA              | NA          | NA        | NA          |
| TCGA-AC-A3YJ  | WT       | WHITE         | NA              | NA          | NA        | NA          |
| TCGA-E9-A3Q9  | WT       | WHITE         | NA              | NA          | NA        | NA          |
| TCGA-A2-A3XW  | WT       | WHITE         | NA              | NA          | NA        | NA          |
| TCGA-E9-A2JT  | WT       | WHITE         | NA              | NA          | NA        | NA          |
| TCGA-E9-A1R6  | WT       | WHITE         | NA              | NA          | NA        | NA          |
| TCGA-OL-A5D8  | WT       | WHITE         | NA              | NA          | NA        | NA          |
| TCGA-LL-A5YN  | WT       | WHITE         | NA              | NA          | NA        | NA          |
| TCGA-EW-A423  | WT       | WHITE         | NA              | NA          | NA        | NA          |
| TCGA-A7-A425  | WT       | WHITE         | NA              | NA          | NA        | NA          |
| TCGA-PE-A5DD  | WT       | WHITE         | NA              | NA          | NA        | NA          |
| TCGA-B6-A408  | WT       | WHITE         | NA              | NA          | NA        | NA          |
| TCGA-AR-A2LJ  | WT       | WHITE         | NA              | NA          | NA        | NA          |
| TCGA-EW-A3E8  | WT       | WHITE         | NA              | NA          | NA        | NA          |
| TCGA-E9-A1R4  | WT       | WHITE         | NA              | NA          | NA        | NA          |
| TCGA-AC-A2FE  | WT       | WHITE         | NA              | NA          | NA        | NA          |
| Dataset | Sample | Tumor Type | Age | Sex | Stage | Race | Ethnicity | Genotype | TMZ Treatment | Status |
|---------|--------|------------|-----|-----|-------|------|-----------|-----------|---------------|--------|
| TCGA-A7-A4SB | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-E2-A570 | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-AR-A5QP | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-E9-A1RC | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-A2-A3KC | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-C8-A3M7 | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-AR-A5QN | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-A7-A0CH | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-E9-A1R5 | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-E9-A1R3 | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-E9-A229 | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-AQ-A54O | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-E9-A1RA | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-C8-A12Y | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-E9-A1RD | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-E9-A24A | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-E9-A1R0 | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-E9-A1N3 | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-AC-A3W6 | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-OL-A66H | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-AR-A5QM | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-A7-A426 | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-OL-A66K | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-GM-A3NW | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-A2-A4S2 | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-OL-A5RX | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-GM-A3XN | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-OL-A5RV | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-B6-A0RN | WT | WHITE | Negative | Negative | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-A2-A0CR | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-E9-A3X8 | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-A2-A4RW | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-OL-A66J | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-AC-A3HN | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-OL-A5DA | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-E9-A5FK | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-AC-A3QP | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-BH-A42U | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-GM-A3XG | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-OL-A5RU | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-D8-A3Z5 | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-GM-A5PV | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-A7-A5ZX | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-GM-A5PX | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-BH-A42V | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-GM-A4E0 | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| TCGA-HN-A20B | WT | WHITE | NA | NA | NA | NA | WHITE | WHITE | NA | NA |
| Sample ID   | Status | Mutant Amino Acid | Mutation Type | Result 1 | Result 2 | Result 3 | Result 4 | Result 5 |
|-------------|--------|------------------|---------------|----------|----------|----------|----------|----------|
| TCGA-D8-A4Z1 | WT     | WHITE            | NA            | NA       | NA       | NA       | NA       | WHITE    |
| TCGA-A2-A0CO | WT     | WHITE            | NA            | NA       | NA       | NA       | NA       | WHITE    |
| TCGA-A2-A4RY | WT     | WHITE            | NA            | NA       | NA       | NA       | NA       | WHITE    |
| TCGA-BH-A28O | WT     | WHITE            | NA            | NA       | NA       | NA       | NA       | WHITE    |
| TCGA-AC-A5XS | WT     | WHITE            | NA            | NA       | NA       | NA       | NA       | WHITE    |
| TCGA-AN-A0XS | WT     | WHITE            | Negative      | Positive | NA       | NA       | NA       | WHITE    |
| TCGA-A1-A0SH | WT     | WHITE            | Negative      | Positive | Negative | NA       | NA       | WHITE    |
| TCGA-AC-A62Y | WT     | WHITE            | NA            | NA       | NA       | NA       | NA       | WHITE    |
| TCGA-A2-A0EP | WT     | WHITE            | NA            | NA       | NA       | NA       | NA       | WHITE    |
| TCGA-E9-A1RI | WT     | WHITE            | NA            | NA       | NA       | NA       | NA       | WHITE    |
| TCGA-A7-A5ZW | WT     | WHITE            | NA            | NA       | NA       | NA       | NA       | WHITE    |
| TCGA-AC-A3YI | WT     | WHITE            | NA            | NA       | NA       | NA       | NA       | WHITE    |
| TCGA-LL-A440 | WT     | WHITE            | NA            | NA       | NA       | NA       | NA       | WHITE    |
| TCGA-E2-A14Y | Q136E  | RED              | Positive      | Positive | Positive | ER/HER2  | PURPLE   |
| TCGA-C8-A130 | N131fs | RED              | Positive      | Positive | Equivocal | ER/HER2  | PURPLE   |
| TCGA-AN-A0FJ | V157fs | RED              | Positive      | Negative | Positive | ER/HER2  | PURPLE   |
| TCGA-BH-A18U | E286K  | RED              | Positive      | Positive | Positive | ER/HER2  | PURPLE   |
| TCGA-C8-A12T | T102fs | RED              | Positive      | Positive | Positive | ER/HER2  | PURPLE   |
| TCGA-AN-A0AJ | G108fs | RED              | Positive      | Positive | Positive | ER/HER2  | PURPLE   |
| TCGA-B6-A0IJ | Y220C  | RED              | Positive      | Positive | NA       | ER/HER2  | PURPLE   |
| TCGA-B6-A0I9 | C135Y  | RED              | Indeterminate | Positive | NA       | ER/HER2  | PURPLE   |
| TCGA-D8-A1XJ | R282G  | RED              | Positive      | Positive | Positive | ER/HER2  | PURPLE   |
| TCGA-C8-A26W | R273L  | RED              | Positive      | Positive | Equivocal | ER/HER2  | PURPLE   |
| TCGA-EW-A1OZ | E258*  | RED              | Positive      | Negative | Positive | ER/HER2  | PURPLE   |
| TCGA-AR-A254 | C124*  | RED              | Positive      | Positive | Positive | ER/HER2  | PURPLE   |
| TCGA-A2-A0YG | T125_splice | RED     | Positive      | Positive | Positive | ER/HER2  | PURPLE   |
| TCGA-A7-A2KD | L93fs  | RED              | Positive      | Positive | Positive | ER/HER2  | PURPLE   |
| TCGA-A8-A09I | WT     | WHITE            | Positive      | Positive | Positive | ER/HER2  | PURPLE   |
| TCGA-E2-A14V | WT     | WHITE            | Positive      | Positive | Positive | ER/HER2  | PURPLE   |
| TCGA-BH-A0DD | WT     | WHITE            | Positive      | Positive | Positive | ER/HER2  | PURPLE   |
| TCGA-C8-A1HL | WT     | WHITE            | Positive      | Negative | Equivocal | ER/HER2  | PURPLE   |
| TCGA-E9-A22D | WT     | WHITE            | Positive      | Positive | Positive | ER/HER2  | PURPLE   |
| TCGA-A1-A0SN | WT     | WHITE            | Positive      | Positive | Positive | ER/HER2  | PURPLE   |
| TCGA-B6-A0X5 | WT     | WHITE            | Positive      | Positive | NA       | ER/HER2  | PURPLE   |
| TCGA-AO-A0JM | WT     | WHITE            | Positive      | Positive | Positive | ER/HER2  | PURPLE   |
| TCGA-AN-A0AK | WT     | WHITE            | Positive      | Negative | Positive | ER/HER2  | PURPLE   |
| TCGA-C8-A1HF | H179Y  | RED              | Negative      | Positive | Positive | HER2     | BLUE     |
| TCGA-E2-A14P | V157F  | RED              | Negative      | Negative | Positive | HER2     | BLUE     |
| TCGA-B6-A1KF | T125_splice | RED     | Negative      | Negative | Equivocal | HER2     | BLUE     |
| TCGA-A2-A04U | G108fs | RED              | Negative      | Negative | Positive | HER2     | BLUE     |
| TCGA-C8-A1HK | R280*  | RED              | Negative      | Negative | Positive | HER2     | BLUE     |
| TCGA-E9-A1N9 | R196*  | RED              | Negative      | Positive | Positive | HER2     | BLUE     |
| TCGA-A2-A1G1 | V225_splice | RED     | Negative      | Negative | Positive | HER2     | BLUE     |
| TCGA-A8-A07R | R248W  | RED              | Negative      | Negative | Positive | HER2     | BLUE     |
| TCGA-BH-A18R | WT     | WHITE            | Negative      | Positive | Positive | HER2     | BLUE     |
| TCGA-BH-A0EE | WT     | WHITE            | Indeterminate | Negative | Positive | HER2     | BLUE     |
| TCGA-BH-A0EE | WT     | WHITE            | Negative      | Negative | Positive | HER2     | BLUE     |
| TCGA-E9-A22G | WT     | WHITE            | Negative      | Negative | Positive | HER2     | BLUE     |
| TCGA-C8-A137 | WT     | WHITE            | Negative      | Negative | Positive | HER2     | BLUE     |
| TCGA Sample | Mutant | Allele | Status | Residue | Location | TNBC | Notes |
|-------------|--------|--------|--------|---------|----------|------|-------|
| TCGA-AR-A1AJ | R273H | RED | Positive | Negative | Negative | ER | GREEN |
| TCGA-A8-A079 | S215I | RED | Positive | Positive | Negative | ER | GREEN |
| TCGA-AO-A03R | L265R | RED | Positive | Positive | Negative | ER | GREEN |
| TCGA-C8-A1HG | C141R | RED | Positive | Positive | Negative | ER | GREEN |
| TCGA-A2-A0CW | R196* | RED | Positive | Positive | Negative | ER | GREEN |
| TCGA-D8-A1Y3 | R213* | RED | Positive | Positive | Negative | ER | GREEN |
| TCGA-C8-A1HM | L194P | RED | Positive | Positive | Negative | ER | GREEN |
| TCGA-AO-A0JD | H193L | RED | Positive | Positive | Negative | ER | GREEN |
| TCGA-AR-A251 | E285K | RED | Positive | Negative | Negative | ER | GREEN |
| TCGA-D8-A1JM | R273H | RED | Positive | Negative | Negative | ER | GREEN |
| TCGA-EW-A1PC | R273C | RED | Positive | Positive | Negative | ER | GREEN |
| TCGA-AR-A1AH | G108fs | RED | Positive | Negative | Negative | ER | GREEN |
| TCGA-AN-A0FY | V173M | RED | Positive | Positive | Negative | ER | GREEN |
| TCGA-AO-A03O | R175H | RED | Positive | Positive | Negative | ER | GREEN |
| TCGA-AO-A094 | R209fs | RED | Positive | Negative | Negative | ER | GREEN |
| TCGA-AR-A13E | R175H | RED | Positive | Negative | Negative | ER | GREEN |
| TCGA-AO-A03L | S261_splice | RED | Positive | Positive | Negative | ER | GREEN |
| TCGA-EW-A1PA | R213* | RED | Positive | Positive | Negative | ER | GREEN |
| TCGA-AR-A0U2 | C176F | RED | Positive | Positive | Negative | ER | GREEN |
| TCGA-C8-A27A | G199V | RED | Positive | Positive | Negative | ER | GREEN |
| TCGA-BH-A0HU | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-A8-A08L | WT | WHITE | Positive | Negative | Negative | ER | GREEN |
| TCGA-BH-A209 | WT | WHITE | Positive | Negative | NA | ER | GREEN |
| TCGA-A8-A07L | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-AR-A24Q | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-AR-A24H | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-BH-A1FM | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-C8-A12U | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-AR-A0TY | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-BH-A0HB | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-A8-A08F | WT | WHITE | Positive | Negative | ER | GREEN |
| TCGA-EW-A2FV | WT | WHITE | Positive | Negative | ER | GREEN |
| TCGA-E2-A15S | WT | WHITE | Positive | Negative | Negative | ER | GREEN |
| TCGA-E2-A109 | WT | WHITE | Positive | Negative | Negative | ER | GREEN |
| TCGA-A8-A09W | WT | WHITE | Positive | Negative | Negative | ER | GREEN |
| TCGA-A2-A0D4 | WT | WHITE | Positive | Negative | Negative | ER | GREEN |
| TCGA-BH-A0C7 | WT | WHITE | Positive | Negative | Negative | ER | GREEN |
| TCGA-D8-A1XF | WT | WHITE | Positive | Negative | Negative | ER | GREEN |
| TCGA-A2-A25B | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-A1-A0SP | S183* | RED | Positive | Negative | Negative | TNBC | RED |
| TCGA-EW-A1PH | K292fs | RED | Negative | Negative | Negative | TNBC | RED |
| TCGA | Sample ID | Mutation | A13497 | A14504 | A15598 | TNBC | RED |
|------|-----------|----------|--------|--------|--------|------|-----|
| TCGA-E2-A159 | V216M | RED | Negative | Negative | Negative | TNBC | RED |
| TCGA-E2-A1B6 | R342* | RED | Negative | Negative | Negative | TNBC | RED |
| TCGA-AO-A129 | R175H | RED | Negative | Negative | Negative | TNBC | RED |
| TCGA-BH-A1F6 | S127P | RED | Negative | Negative | Negative | TNBC | RED |
| TCGA-BH-A18V | E56* | RED | Negative | Negative | Negative | TNBC | RED |
| TCGA-AR-A1Al | F270I | RED | Negative | Negative | Negative | TNBC | RED |
| TCGA-A2-A0YM | R333fs | RED | Negative | Negative | Negative | TNBC | RED |
| TCGA-C8-A275 | G266E | RED | NA | NA | NA | TNBC | RED |
| TCGA-A7-A0CE | T155P | RED | Negative | Negative | Negative | TNBC | RED |
| TCGA-BH-A0B3 | V216M | RED | Negative | Negative | Negative | TNBC | RED |
| TCGA-AN-A0AR | E171fs | RED | Negative | Negative | Negative | TNBC | RED |
| TCGA-AR-A0TS | E198* | RED | Negative | Negative | Negative | TNBC | RED |
| TCGA-AO-A124 | R213* | RED | Negative | Negative | Negative | TNBC | RED |
| TCGA-C8-A12L | C238F | RED | Negative | Negative | Equivocal | TNBC | RED |
| TCGA-E2-A1LG | I255del | RED | Negative | Negative | Negative | TNBC | RED |
| TCGA-A7-A26I | G266E | RED | Negative | Negative | Negative | TNBC | RED |
| TCGA-D8-A147 | C176F | RED | Negative | Negative | Negative | TNBC | RED |
| TCGA-E2-A11l | Y126_splice | RED | Negative | Positive | Negative | TNBC | RED |
| TCGA-C8-A12K | I195T | RED | NA | NA | NA | TNBC | RED |
| TCGA-E2-A14N | R196* | RED | Negative | Negative | Negative | TNBC | RED |
| TCGA-A8-A08R | C238fs | RED | Negative | Negative | Negative | TNBC | RED |
| TCGA-A2-A0CM | E204fs | RED | Negative | Negative | Negative | TNBC | RED |
| TCGA-BH-A1FC | V225_splice | RED | Negative | Negative | Negative | TNBC | RED |
| TCGA-E2-A1L7 | I255F | RED | Negative | Negative | Negative | TNBC | RED |
| TCGA-A1-A0SK | M133K | RED | Negative | Negative | Negative | TNBC | RED |
| TCGA-AR-A2LR | S241fs | RED | Negative | Negative | Negative | TNBC | RED |
| TCGA-GM-A2DH | Q331* | RED | Negative | Negative | Negative | TNBC | RED |
| TCGA-BH-A0B9 | P278T | RED | Negative | Negative | Negative | TNBC | RED |
| TCGA-A7-A13D | E221* | RED | Negative | Positive | Negative | TNBC | RED |
| TCGA-EW-A1P4 | H179R | RED | Negative | Negative | Negative | TNBC | RED |
| TCGA-A2-A0YE | I162fs | RED | Negative | Negative | Negative | TNBC | RED |
| TCGA-AO-A0J2 | R175H | RED | Negative | Negative | Negative | TNBC | RED |
| TCGA-C8-A134 | R273H | RED | Negative | Negative | Equivocal | TNBC | RED |
| TCGA-AR-A1AQ | R342fs | RED | Negative | Negative | Negative | TNBC | RED |
| TCGA-AR-A1AY | V122fs | RED | Negative | Negative | Negative | TNBC | RED |
| TCGA-BH-A18T | Y107D | RED | Negative | Negative | Negative | TNBC | RED |
| TCGA-AR-A1AR | S90fs | RED | Negative | Negative | Negative | TNBC | RED |
| TCGA-AR-A256 | F109fs | RED | Negative | Negative | Negative | TNBC | RED |
| TCGA-C8-A27B | H193R | RED | Negative | Negative | Negative | TNBC | RED |
| TCGA-D8-A27F | S241fs | RED | Negative | Negative | Negative | TNBC | RED |
| TCGA-C8-A1HJ | R196* | RED | Negative | Negative | Negative | TNBC | RED |
| TCGA-A2-A0D0 | R196* | RED | Negative | Negative | Negative | TNBC | RED |
| TCGA-A8-A07O | T125_splice | RED | Negative | Negative | Negative | TNBC | RED |
| TCGA-E2-A14R | I195T | RED | Negative | Negative | Negative | TNBC | RED |
| TCGA-C8-A131 | R175H | RED | Negative | Negative | Negative | TNBC | RED |
| TCGA-BH-A0E6 | C238fs | RED | Negative | Negative | Negative | TNBC | RED |
| TCGA-BH-A203 | R273H | RED | NA | NA | NA | TNBC | RED |
| TCGA          | Mutation | Status | Race | Stage | TNM | Type         | Color |
|--------------|----------|--------|------|-------|-----|--------------|-------|
| E9-A1RH      | E339fs   | RED    | NA   | NA    | NA  | TNBC         | RED   |
| E9-A244      | R175H    | RED    | NA   | NA    | NA  | TNBC         | RED   |
| BH-A0WA      | S241C    | RED    | Negative | Negative | Negative | TNBC         | RED   |
| A2-A0EQ      | 162_163Y>N | RED    | Negative | Negative | Negative | TNBC         | RED   |
| D8-A13Z      | C141Y    | RED    | Negative | Negative | Negative | TNBC         | RED   |
| E9-A248      | H115fs   | RED    | NA   | NA    | NA  | TNBC         | RED   |
| D8-A1JL      | H193L    | RED    | Negative | Negative | Negative | TNBC         | RED   |
| BH-A0WA      | S241C    | RED    | Negative | Negative | Negative | TNBC         | RED   |
| A2-A0EQ      | 162_163Y>N | RED    | Negative | Negative | Negative | TNBC         | RED   |
| D8-A1JL      | H193L    | RED    | Negative | Negative | Negative | TNBC         | RED   |
| A2-A04T      | R273H,D208G | RED    | Negative | Negative | Negative | TNBC         | RED   |
| EW-A1PB      | WT       | WHITE  | Negative | Negative | Negative | TNBC         | RED   |
| AN-A0XU      | WT       | WHITE  | Negative | Negative | Negative | TNBC         | RED   |
| AO-A0J4      | WT       | WHITE  | Negative | Negative | Negative | TNBC         | RED   |
| BH-A0AV      | WT       | WHITE  | Negative | Negative | Negative | TNBC         | RED   |
| E2-A1AZ      | WT       | WHITE  | Negative | Negative | Negative | TNBC         | RED   |
| AC-A2BK      | WT       | WHITE  | Negative | Negative | Negative | TNBC         | RED   |
| E2-A1LI      | WT       | WHITE  | Negative | Negative | Negative | TNBC         | RED   |
| EW-A1P8      | WT       | WHITE  | Negative | Negative | Negative | TNBC         | RED   |
| D8-A143      | WT       | WHITE  | Negative | Negative | Negative | TNBC         | RED   |
| E2-A1LL      | WT       | WHITE  | Negative | Negative | Negative | TNBC         | RED   |
| AO-A1KR      | WT       | WHITE  | Negative | Negative | Negative | TNBC         | RED   |
| D8-A1XX      | WT       | WHITE  | Negative | Negative | Negative | TNBC         | RED   |
| A2-A0D2      | WT       | WHITE  | Negative | Negative | Negative | TNBC         | RED   |
| AN-A04D      | WT       | WHITE  | Negative | Negative | Negative | TNBC         | RED   |
| AO-A12F      | WT       | WHITE  | Negative | Negative | Negative | TNBC         | RED   |
| E2-A1LK      | WT       | WHITE  | Negative | Negative | Negative | TNBC         | RED   |
| A2-A0T0      | WT       | WHITE  | Negative | Negative | Negative | TNBC         | RED   |
| AN-A0AT      | WT       | WHITE  | Negative | Negative | Negative | TNBC         | RED   |
| OL-A5RW      | R209fs   | RED    | NA   | NA    | NA  | NA           | WHITE |
| B6-A400      | G108fs   | RED    | NA   | NA    | NA  | NA           | WHITE |
| BH-A5IZ      | R273H    | RED    | NA   | NA    | NA  | NA           | WHITE |
| E9-A1RB      | E286Q    | RED    | NA   | NA    | NA  | NA           | WHITE |
| B6-A0RU      | R196*    | RED    | Negative | Negative | Negative | NA         | WHITE |
| E2-A573      | Y220C    | RED    | NA   | NA    | NA  | NA           | WHITE |
| AR-A5QQ      | R209fs   | RED    | NA   | NA    | NA  | NA           | WHITE |
| A2-A3Y0      | R342*    | RED    | NA   | NA    | NA  | NA           | WHITE |
| GM-A3XL      | R156del  | RED    | NA   | NA    | NA  | NA           | WHITE |
| A2-A3XT      | C135R    | RED    | NA   | NA    | NA  | NA           | WHITE |
| A7-A4SE      | S261_splice | RED    | NA   | NA    | NA  | NA           | WHITE |
| A2-A3XX      | L111P    | RED    | NA   | NA    | NA  | NA           | WHITE |
| OL-A5D7      | V272M    | RED    | NA   | NA    | NA  | NA           | WHITE |
| B6-A0X1      | Q331_splice | RED    | Negative | Negative | Negative | NA         | WHITE |
| B6-A0IQ      | R213*    | RED    | Negative | Negative | Negative | NA         | WHITE |
| OL-A66I      | R342*    | RED    | NA   | NA    | NA  | NA           | WHITE |
| B6-A409      | L252fs   | RED    | NA   | NA    | NA  | NA           | WHITE |
| TCGA ID | Mutation   | Chromosome | Genomic Location | Tumor Status 1 | Tumor Status 2 | ER Status  | HER2 Status | Status Color |
|---------|------------|------------|------------------|---------------|---------------|------------|-------------|--------------|
| TCGA-B6-A02 | R196*     | RED        | NA               | NA            | NA            | NA         | NA          | WHITE        |
| TCGA-A2-A4S3 | K132E    | RED        | NA               | NA            | NA            | NA         | NA          | WHITE        |
| TCGA-LL-A5YO | L194R     | RED        | NA               | NA            | NA            | NA         | NA          | WHITE        |
| TCGA-B6-A0RE | S303fs   | RED        | Negative         | Negative      | NA            | NA         | NA          | WHITE        |
| TCGA-E2-A574 | WT        | WHITE      | NA               | NA            | NA            | NA         | NA          | WHITE        |
| TCGA-HN-A2NL | WT        | WHITE      | NA               | NA            | NA            | NA         | NA          | WHITE        |
| TCGA-OL-A5S0 | WT        | WHITE      | NA               | NA            | NA            | NA         | NA          | WHITE        |
| TCGA-B6-A0I1 | WT        | WHITE      | Negative         | Negative      | NA            | NA         | NA          | WHITE        |
| TCGA-A2-A3XU | WT        | WHITE      | NA               | NA            | NA            | NA         | NA          | WHITE        |
| TCGA-E9-A2JS | WT        | WHITE      | NA               | NA            | NA            | NA         | NA          | WHITE        |
| TCGA-BH-A42T | WT        | WHITE      | NA               | NA            | NA            | NA         | NA          | WHITE        |
| TCGA-E9-A228 | WT        | WHITE      | NA               | NA            | NA            | NA         | NA          | WHITE        |
| TCGA-B6-A0RT | WT        | WHITE      | Negative         | Negative      | NA            | NA         | NA          | WHITE        |
| TCGA-E9-A3QA | WT        | WHITE      | NA               | NA            | NA            | NA         | NA          | WHITE        |
| TCGA-A8-A075 | G187_splice | RED      | Positive         | Positive      | Positive      | ER/HER2    | PURPLE      | Purple        |
| TCGA-BH-A0C0 | R110fs    | RED        | Positive         | Positive      | Positive      | ER/HER2    | PURPLE      | Purple        |
| TCGA-D8-A1J9 | V173L     | RED        | Positive         | Negative      | Positive      | ER/HER2    | PURPLE      | Purple        |
| TCGA-BH-A0AW | F270S     | RED        | Positive         | Negative      | Positive      | ER/HER2    | PURPLE      | Purple        |
| TCGA-D8-A27N | R175H     | RED        | Positive         | Positive      | Positive      | ER/HER2    | PURPLE      | Purple        |
| TCGA-BH-A202 | R213*     | RED        | Positive         | Positive      | Positive      | ER/HER2    | PURPLE      | Purple        |
| TCGA-BH-A1FN | R280T     | RED        | Positive         | Positive      | NA            | ER/HER2    | PURPLE      | Purple        |
| TCGA-BH-A1F2 | E285K     | RED        | Positive         | Positive      | Positive      | ER/HER2    | PURPLE      | Purple        |
| TCGA-AQ-A04H | V197G     | RED        | Positive         | Positive      | Positive      | ER/HER2    | PURPLE      | Purple        |
| TCGA-A8-A06U | R209fs    | RED        | Positive         | Positive      | Positive      | ER/HER2    | PURPLE      | Purple        |
| TCGA-BH-A0DZ | E258Q     | RED        | Positive         | Positive      | Positive      | ER/HER2    | PURPLE      | Purple        |
| TCGA-BH-A0B7 | G187_splice | RED      | Positive         | Positive      | Positive      | ER/HER2    | PURPLE      | Purple        |
| TCGA-A8-A097 | P250fs    | RED        | Positive         | Positive      | Positive      | ER/HER2    | PURPLE      | Purple        |
| TCGA-C8-A138 | A307fs    | RED        | Positive         | Negative      | Equivocal     | ER/HER2    | PURPLE      | Purple        |
| TCGA-AN-A0FT | H193R     | RED        | Positive         | Positive      | Positive      | ER/HER2    | PURPLE      | Purple        |
| TCGA-B6-A0RH | Y220S     | RED        | Positive         | Positive      | NA            | ER/HER2    | PURPLE      | Purple        |
| TCGA-E2-A152 | K132E     | RED        | Positive         | Negative      | Positive      | ER/HER2    | PURPLE      | Purple        |
| TCGA-AR-A0TX | Y205C     | RED        | Positive         | Positive      | Positive      | ER/HER2    | PURPLE      | Purple        |
| TCGA-AQ-A04L | H193R     | RED        | Positive         | Negative      | Positive      | ER/HER2    | PURPLE      | Purple        |
| TCGA-BH-A1FJ | WT        | WHITE      | Negative         | Positive      | NA            | ER/HER2    | PURPLE      | Purple        |
| TCGA-EW-A1J3 | WT        | WHITE      | Positive         | Positive      | Positive      | ER/HER2    | PURPLE      | Purple        |
| TCGA-EW-A1IW | WT        | WHITE      | Positive         | Positive      | Positive      | ER/HER2    | PURPLE      | Purple        |
| TCGA-A8-A09G | WT        | WHITE      | Positive         | Negative      | Positive      | ER/HER2    | PURPLE      | Purple        |
| TCGA-A8-A07I | WT        | WHITE      | Positive         | Negative      | Positive      | ER/HER2    | PURPLE      | Purple        |
| TCGA-C8-A1HN | WT        | WHITE      | Positive         | Positive      | Equivocal     | ER/HER2    | PURPLE      | Purple        |
| TCGA-A8-A08B | WT        | WHITE      | Positive         | Negative      | Positive      | ER/HER2    | PURPLE      | Purple        |
| TCGA-BH-A18P | WT        | WHITE      | Positive         | Negative      | Positive      | ER/HER2    | PURPLE      | Purple        |
| TCGA-A8-A07B | WT        | WHITE      | Positive         | Positive      | Positive      | ER/HER2    | PURPLE      | Purple        |
| TCGA-D8-A1XS | WT        | WHITE      | Positive         | Positive      | Positive      | ER/HER2    | PURPLE      | Purple        |
| TCGA-B6-A0WV | WT        | WHITE      | Positive         | Positive      | NA            | ER/HER2    | PURPLE      | Purple        |
| TCGA-A2-A25E | WT        | WHITE      | Positive         | Positive      | Equivocal     | ER/HER2    | PURPLE      | Purple        |
| TCGA-EW-A1PD | WT        | WHITE      | Positive         | Positive      | Positive      | ER/HER2    | PURPLE      | Purple        |
| TCGA-BH-A0HY | WT        | WHITE      | Positive         | Negative      | Positive      | ER/HER2    | PURPLE      | Purple        |
| TCGA-AC-A23H | WT        | WHITE      | Positive         | Negative      | Positive      | ER/HER2    | PURPLE      | Purple        |
| TCGA Sample ID | Genotype | ER Status | HER2 Status | ER/HER2 Status | Tumor Type |
|---------------|----------|-----------|-------------|----------------|------------|
| TCGA-A2-A0CX  | WT       | Positive  | Negative    | Positive       | ER/HER2 PURPLE |
| TCGA-AR-A250  | WT       | Positive  | Negative    | Positive       | ER/HER2 PURPLE |
| TCGA-A8-A06R  | WT       | Positive  | Negative    | Positive       | ER/HER2 PURPLE |
| TCGA-E2-A14W  | WT       | Positive  | Positive    | Positive       | ER/HER2 PURPLE |
| TCGA-D8-A27W  | WT       | Positive  | Positive    | Positive       | ER/HER2 PURPLE |
| TCGA-A8-A06X  | WT       | Positive  | Negative    | Positive       | ER/HER2 PURPLE |
| TCGA-BH-A1F8  | WT       | Positive  | Positive    | Positive       | ER/HER2 PURPLE |
| TCGA-E9-A22H  | WT       | Positive  | Positive    | Positive       | ER/HER2 PURPLE |
| TCGA-B6-A0IG  | WT       | Positive  | Positive    | NA             | ER/HER2 PURPLE |
| TCGA-E2-A105  | WT       | Positive  | Positive    | Equivocal      | ER/HER2 PURPLE |
| TCGA-AN-A0FZ  | WT       | Positive  | Negative    | Positive       | ER/HER2 PURPLE |
| TCGA-A2-A04X  | WT       | Positive  | Positive    | Positive       | ER/HER2 PURPLE |
| TCGA-B6-A0IM  | WT       | Positive  | Positive    | NA             | ER/HER2 PURPLE |
| TCGA-A8-A090  | WT       | Positive  | Positive    | Positive       | ER/HER2 PURPLE |
| TCGA-A9-A1NA  | WT       | Positive  | Positive    | Positive       | ER/HER2 PURPLE |
| TCGA-B6-A0WW  | WT       | Positive  | Positive    | NA             | ER/HER2 PURPLE |
| TCGA-BH-A0B4  | WT       | Positive  | Positive    | Positive       | ER/HER2 PURPLE |
| TCGA-A1-A0SM  | WT       | Negative  | Positive    | Negative       | HER2 BLUE |
| TCGA-A8-A08X  | WT       | Negative  | Negative    | Positive       | HER2 BLUE |
| TCGA-D8-A1XT  | WT       | Negative  | Negative    | Positive       | HER2 BLUE |
| TCGA-C8-A12Z  | WT       | Negative  | Negative    | Positive       | HER2 BLUE |
| TCGA-AN-A0FL  | WT       | Negative  | Negative    | Positive       | HER2 BLUE |
| TCGA-AN-A0FD  | WT       | Negative  | Negative    | Positive       | HER2 BLUE |
| TCGA-A2-A15H  | WT       | Negative  | Negative    | Positive       | HER2 BLUE |
| TCGA-A8-A08P  | WT       | Negative  | Negative    | Positive       | HER2 BLUE |
| TCGA-A8-A076  | WT       | Negative  | Negative    | Positive       | HER2 BLUE |
| TCGA-BH-A1EV  | WT       | Negative  | Negative    | Positive       | HER2 BLUE |
| TCGA-A1-A0SM  | WT       | Negative  | Negative    | Negative       | HER2 BLUE |
| TCGA-A2-A0D1  | WT       | Negative  | Negative    | Positive       | HER2 BLUE |
| TCGA-C8-A135  | WT       | Negative  | Negative    | Positive       | HER2 BLUE |
| TCGA-AO-A04J  | WT       | Negative  | Negative    | Positive       | HER2 BLUE |
| TCGA-A8-A07X  | WT       | Negative  | Negative    | Positive       | HER2 BLUE |
| TCGA-D8-A1XT  | WT       | Negative  | Negative    | Positive       | HER2 BLUE |
| TCGA-C8-A12P  | WT       | Negative  | Negative    | Positive       | HER2 BLUE |
| TCGA-A2-A0D4  | WT       | Negative  | Negative    | Positive       | HER2 BLUE |
| TCGA-A8-A08X  | WT       | Negative  | Negative    | Positive       | HER2 BLUE |
| TCGA-D8-A1XT  | WT       | Negative  | Negative    | Positive       | HER2 BLUE |
| TCGA-Code | Mutation | Header | Value 1 | Value 2 | Value 3 | Value 4 | Value 5 |
|-----------|----------|--------|---------|---------|---------|---------|---------|
| TCGA-E2-A1LE | K164E | RED Negative | Negative | Positive | HER2 BLUE |
| TCGA-A2-A04W | V272M | RED Negative | Negative | Positive | HER2 BLUE |
| TCGA-AN-A04C | WT WHITE | Negative | Negative | Positive | HER2 BLUE |
| TCGA-AR-A24U | WT WHITE | Negative | Negative | Positive | HER2 BLUE |
| TCGA-E9-A1NC | WT WHITE | Negative | Positive | Positive | HER2 BLUE |
| TCGA-AO-A0JE | WT WHITE | Negative | Negative | Positive | HER2 BLUE |
| TCGA-D8-A1JA | WT WHITE | Negative | Negative | Positive | HER2 BLUE |
| TCGA-A8-A0A7 | WT WHITE | Negative | Negative | Positive | HER2 BLUE |
| TCGA-BH-A1EN | WT WHITE | Negative | Negative | Positive | HER2 BLUE |
| TCGA-E2-A1LB | WT WHITE | Negative | Negative | Positive | HER2 BLUE |
| TCGA-A8-A092 | C238Y | RED Positive | Positive | Negative | ER GREEN |
| TCGA-A2-A05V | FLH113del | RED Positive | Positive | Negative | ER GREEN |
| TCGA-A2-A0SW | R273C | RED Positive | Negative | Negative | ER GREEN |
| TCGA-AR-A0U3 | Q167fs | RED Positive | Positive | Negative | ER GREEN |
| TCGA-D8-A1JJ | C141Y | RED Positive | Positive | Negative | ER GREEN |
| TCGA-A8-A06O | G279E | RED Positive | Positive | Negative | ER GREEN |
| TCGA-A8-A06Q | C238Y | RED Positive | Positive | Negative | ER GREEN |
| TCGA-A8-A07W | H179R | RED Positive | Positive | Negative | ER GREEN |
| TCGA-A2-A0YT | I255S | RED Positive | Negative | Negative | ER GREEN |
| TCGA-AR-A24K | F109fs | RED Positive | Positive | Negative | ER GREEN |
| TCGA-A7-A0CJ | R175H | RED Positive | Positive | Negative | ER GREEN |
| TCGA-C8-A12W | H193Y | RED Positive | Positive | Negative | ER GREEN |
| TCGA-A2-A0YH | P278L | RED Positive | Positive | Negative | ER GREEN |
| TCGA-EW-A1OY | Q192* | RED Positive | Positive | Negative | ER GREEN |
| TCGA-D8-A1XL | R248W | RED Positive | Positive | Negative | ER GREEN |
| TCGA-AO-A0JB | R213* | RED Positive | Positive | Negative | ER GREEN |
| TCGA-A8-A081 | C141Y | RED Positive | Positive | Negative | ER GREEN |
| TCGA-E2-A155 | S33_splice | RED Positive | Negative | Negative | ER GREEN |
| TCGA-AR-A24S | D281V | RED Positive | Positive | Negative | ER GREEN |
| TCGA-E2-A15M | L130V | RED Positive | Positive | Negative | ER GREEN |
| TCGA-BH-A0GY | R175H | RED Positive | Positive | Negative | ER GREEN |
| TCGA-A8-A08I | Y163C | RED Positive | Positive | Negative | ER GREEN |
| TCGA-BH-A0DL | E286A | RED Positive | Negative | Negative | ER GREEN |
| TCGA-A2-A0YJ | R342* | RED Positive | Negative | Negative | ER GREEN |
| TCGA-A8-A06Z | P128fs | RED Positive | Positive | Negative | ER GREEN |
| TCGA-E2-A2P5 | F341S | RED Positive | Positive | Negative | ER GREEN |
| TCGA-BH-A0BR | V274F | RED Positive | Positive | Negative | ER GREEN |
| TCGA-BH-A1FD | V173L | RED Positive | Positive | Negative | ER GREEN |
| TCGA-GM-A2DL | D281E | RED Positive | Positive | Negative | ER GREEN |
| TCGA-C8-A12O | R273H | RED Positive | Positive | Negative | ER GREEN |
| TCGA-AR-A24P | Y234C | RED Positive | Positive | Negative | ER GREEN |
| TCGA-A1-A0SI | R175H | RED Positive | Positive | Negative | ER GREEN |
| TCGA-AO-A03N | A161T | RED Positive | Positive | Negative | ER GREEN |
| TCGA-C8-A26V | I232S | RED Positive | Positive | Negative | ER GREEN |
| TCGA-D8-A1XZ | Q167* | RED Positive | Negative | Negative | ER GREEN |
| TCGA-BH-A0HX | H193Y | RED Positive | Negative | Negative | ER GREEN |
| TCGA-BH-A0H0 | WT WHITE | Negative | Positive | Negative | ER GREEN |
| TCGA-D8-A1J8 | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-AN-A03Y | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-A2-A0T3 | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-A8-A095 | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-A8-A07E | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-AR-A2LK | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-D8-A1JD | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-AN-A0XW | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-BH-A0E1 | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-BH-A0E2 | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-E9-A22A | WT | WHITE | Positive | Negative | Negative | ER | GREEN |
| TCGA-E2-A15A | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-BH-A18F | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-A8-A084 | WT | WHITE | Positive | Negative | Negative | ER | GREEN |
| TCGA-BH-A0B5 | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-A7-A26J | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-E2-A10A | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-A2-A1FX | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-AR-A24L | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-BH-A0AU | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-A2-A04R | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-BH-A0BZ | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-A2-A04V | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-AN-A0XR | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-E2-A14S | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-GM-A2DO | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-A2-A04V | WT | WHITE | Positive | Positive | Negative | ER | GREEN |
| TCGA-AO-A03T | WT   | WHITE | Positive | Positive | Negative | ER  | GREEN  |
|-------------|------|-------|----------|----------|----------|-----|--------|
| TCGA-C8-A273 | WT   | WHITE | Positive | Positive | Negative | ER  | GREEN  |
| TCGA-A8-A07Z | WT   | WHITE | Positive | Positive | Negative | ER  | GREEN  |
| TCGA-BH-A0W3 | WT   | WHITE | Positive | Positive | Negative | ER  | GREEN  |
| TCGA-E2-A14Z | WT   | WHITE | Positive | Positive | Negative | ER  | GREEN  |
| TCGA-AO-A12E | WT   | WHITE | Positive | Positive | Negative | ER  | GREEN  |
| TCGA-E2-A14T | WT   | WHITE | Positive | Positive | Negative | ER  | GREEN  |
| TCGA-A2-A1G4 | WT   | WHITE | Positive | Positive | Negative | ER  | GREEN  |
| TCGA-C8-A1HO | WT   | WHITE | Positive | Positive | Negative | ER  | GREEN  |
| TCGA-E2-A1IIE | WT | WHITE | Positive | Positive | Negative | ER  | GREEN  |
| TCGA-A2-A0YF | WT   | WHITE | Positive | Positive | Negative | ER  | GREEN  |
| TCGA-A8-A09M | WT   | WHITE | Positive | Positive | Negative | ER  | GREEN  |
| TCGA-A8-A085 | WT   | WHITE | Positive | Positive | Negative | ER  | GREEN  |
| TCGA-E2-A15T | WT   | WHITE | Positive | Positive | Negative | ER  | GREEN  |
| TCGA-A2-A0ER | WT   | WHITE | Positive | Positive | Negative | ER  | GREEN  |
| TCGA-BH-A0HK | WT   | WHITE | Positive | Positive | Negative | ER  | GREEN  |
| TCGA-D8-A1X | WT   | WHITE | Positive | Positive | Negative | ER  | GREEN  |
| TCGA-A2-A0EV | WT   | WHITE | Positive | Positive | Negative | ER  | GREEN  |
| TCGA-AO-A0JA | WT   | WHITE | Positive | Positive | Negative | ER  | GREEN  |
| TCGA-B6-A1K | WT   | WHITE | Positive | Positive | Negative | ER  | GREEN  |
| TCGA-A8-A07Q | WT   | WHITE | Positive | Positive | Negative | ER  | GREEN  |
| TCGA-BH-A0DK | WT   | WHITE | Positive | Positive | Negative | ER  | GREEN  |
| TCGA-A2-A25D | WT   | WHITE | Positive | Positive | Negative | ER  | GREEN  |
| TCGA-C8-A274 | WT   | WHITE | Positive | Positive | Negative | ER  | GREEN  |
| TCGA-A8-A08J | WT   | WHITE | Positive | Positive | Negative | ER  | GREEN  |
| TCGA-A2-A086 | WT   | WHITE | Positive | Positive | Negative | ER  | GREEN  |
| Sample ID     | Type | Gene | Mutation   | Tumor Status  | Normal Status | ER Status | Other Status | Color |
|--------------|------|------|------------|---------------|---------------|-----------|-------------|-------|
| TCGA-A2-A0D3 | WT   | White | Positive   | Positive      | Negative      | ER        | GREEN       |
| TCGA-EW-A1IZ | WT   | White | Positive   | Positive      | Negative      | ER        | GREEN       |
| TCGA-EW-A2FS | WT   | White | Positive   | Negative      | Negative      | ER        | GREEN       |
| TCGA-A2-A0CU | WT   | White | Positive   | Positive      | Negative      | ER        | GREEN       |
| TCGA-D8-A1Y2 | WT   | White | Positive   | Positive      | Negative      | ER        | GREEN       |
| TCGA-B6-A0IN | WT   | White | Positive   | Negative      | NA            | ER        | GREEN       |
| TCGA-AO-A03V | WT   | White | Positive   | Positive      | Negative      | ER        | GREEN       |
| TCGA-AO-A03V | WT   | White | Positive   | Positive      | Negative      | ER        | GREEN       |
| TCGA-E7-A0DA | I195T| RED  | Negative   | Negative      | Negative      | TNBC      | RED         |
| TCGA-E9-A1N8 | T256fs| RED  | Negative   | NA            | Negative      | TNBC      | RED         |
| TCGA-A2-A0SX | G199V| RED  | Negative   | Negative      | Negative      | TNBC      | RED         |
| TCGA-A2-A0SX | G199V| RED  | Negative   | Negative      | Negative      | TNBC      | RED         |
| TCGA-E2-A1LH | K132T| RED  | Negative   | Negative      | Negative      | TNBC      | RED         |
| TCGA-GM-A2DF | V225splice| RED  | Negative   | Negative      | Negative      | TNBC      | RED         |
| TCGA-A2-A04P | G108fs| RED  | Negative   | Negative      | Negative      | TNBC      | RED         |
| TCGA-BH-A1FU | R175H| RED  | Negative   | Negative      | NA            | TNBC      | RED         |
| TCGA-D8-A1JK | Q331splice| RED  | Negative   | Positive      | Negative      | TNBC      | RED         |
| TCGA-AO-A128 | R342*| RED  | Negative   | Negative      | Negative      | TNBC      | RED         |
| TCGA-AC-A2QH | D281Y| RED  | Negative   | Negative      | Negative      | TNBC      | RED         |
| TCGA-A8-A09X | M246I| RED  | Negative   | Negative      | Negative      | TNBC      | RED         |
| TCGA-D8-A142 | P278A| RED  | Negative   | Negative      | Negative      | TNBC      | RED         |
| TCGA-D8-A27M | R196*| RED  | Negative   | Negative      | Negative      | TNBC      | RED         |
| TCGA-E9-A243 | W91*,Y220S| RED  | NA         | NA            | NA            | TNBC      | RED         |
| TCGA-BH-A08L | P151H| RED  | Negative   | Negative      | Negative      | TNBC      | RED         |
| TCGA-D8-A1JG | L289F| RED  | Negative   | Negative      | Negative      | TNBC      | RED         |
| TCGA-E2-A150 | C176*| RED  | Negative   | Negative      | Negative      | TNBC      | RED         |
| TCGA-BH-A0RX | L201fs| RED  | Negative   | Negative      | Negative      | TNBC      | RED         |
| TCGA-D8-A27H | Y220H| RED  | Negative   | Negative      | Negative      | TNBC      | RED         |
| TCGA-BH-A1F0 | V147fs| RED  | Negative   | Indeterminate | Negative      | TNBC      | RED         |
| TCGA-E2-A14X | R213*| RED  | Negative   | Negative      | Negative      | TNBC      | RED         |
| TCGA-BH-A18Q | A76fs| RED  | Negative   | Negative      | Negative      | TNBC      | RED         |
| TCGA-AQ-A04J | L111P| RED  | Negative   | Negative      | Negative      | TNBC      | RED         |
| TCGA-GM-A2DB | E294*| RED  | Negative   | Negative      | Negative      | TNBC      | RED         |
| TCGA-A2-A012 | Y220C| RED  | Negative   | Negative      | Negative      | TNBC      | RED         |
| TCGA-C8-A26X | V173M| RED  | Negative   | Negative      | Negative      | TNBC      | RED         |
| TCGA-D8-A1JF | H179R| RED  | Negative   | Negative      | Negative      | TNBC      | RED         |
| TCGA-D8-A1XW | Y126N| RED  | Negative   | Positive      | Negative      | TNBC      | RED         |
| TCGA-GM-A2DD | R175H| RED  | Negative   | Negative      | Negative      | TNBC      | RED         |
| TCGA-E2-A158 | I195T| RED  | Negative   | Negative      | Negative      | TNBC      | RED         |
| TCGA-D8-A27H | WT   | WHITE | Negative   | Negative      | Negative      | TNBC      | RED         |
| TCGA-C8-A26Y | WT   | WHITE | Negative   | Negative      | Negative      | TNBC      | RED         |
| TCGA-A2-A04Q | WT   | WHITE | Negative   | Negative      | Negative      | TNBC      | RED         |
| TCGA-BH-A0BW | WT   | WHITE | Negative   | Negative      | Negative      | TNBC      | RED         |
| TCGA-A2-A025F| WT   | WHITE | Negative   | Positive      | Negative      | TNBC      | RED         |
| TCGA-A2-A025F| WT   | WHITE | Negative   | Positive      | Negative      | TNBC      | RED         |
| TCGA-C8-A12V | WT   | WHITE | Negative   | Negative      | Negative      | TNBC      | RED         |
| TCGA-A2-A025F| WT   | WHITE | Negative   | Negative      | Negative      | TNBC      | RED         |
| TCGA-AC-A2QJ | WT   | WHITE | Negative   | Negative      | Negative      | TNBC      | RED         |
| TCGA Sample ID | Gene ID | Mutation Type | Tumor Type | Untreated | Baseline | Treatment | Status | TNBC | Grade |
|---------------|---------|---------------|------------|-----------|----------|-----------|--------|------|-------|
| TCGA-BH-A18G  | WT      | WHITE         | Negative   | Negative  | Negative  | Negative   | TNBC   | RED  |       |
| TCGA-BH-A1EW  | WT      | WHITE         | Negative   | Negative  | Negative  | Negative   | TNBC   | RED  |       |
| TCGA-A2-A3XS  | S241fs  | WHITE         | Negative   | Negative  | NA        | NA         | WHITE  |   NA|       |
| TCGA-EW-A3U0  | E204    | WHITE         | Negative   | Negative  | NA        | NA         | WHITE  |   NA|       |
| TCGA-E9-A5FL  | H193R   | WHITE         | Negative   | Negative  | NA        | NA         | WHITE  |   NA|       |
| TCGA-B6-A0IK  | L194R   | WHITE         | Negative   | Negative  | NA        | NA         | WHITE  |   NA|       |
| TCGA-A2-A3XY  | G187_splice | WHITE         | Negative   | Negative  | NA        | NA         | WHITE  |   NA|       |
| TCGA-LL-A5YP  | R280K   | WHITE         | Negative   | Negative  | NA        | NA         | WHITE  |   NA|       |
| TCGA-A7-A4SD  | M237I   | WHITE         | Negative   | Negative  | NA        | NA         | WHITE  |   NA|       |
| TCGA-AC-A62X  | I195T   | WHITE         | Negative   | Negative  | NA        | NA         | WHITE  |   NA|       |
| TCGA-AR-A0U0  | L194R   | WHITE         | Negative   | Negative  | NA        | NA         | WHITE  |   NA|       |
| TCGA-GI-A2C9  | C176Y   | WHITE         | Negative   | Negative  | NA        | NA         | WHITE  |   NA|       |
| TCGA-B6-A3ZX  | V216M   | WHITE         | Negative   | Negative  | NA        | NA         | WHITE  |   NA|       |
| TCGA-B6-A0WX  | L114*,R248W | WHITE         | Negative   | Negative  | NA        | NA         | WHITE  |   NA|       |
| TCGA-B6-A1KN  | L265P   | WHITE         | Negative   | Negative  | NA        | NA         | WHITE  |   NA|       |
| TCGA-AC-A5XU  | R342P   | WHITE         | Negative   | Negative  | NA        | NA         | WHITE  |   NA|       |
| TCGA-A7-A56D  | T304fs  | WHITE         | Negative   | Negative  | NA        | NA         | WHITE  |   NA|       |
| TCGA-AQ-A54N  | R306*   | WHITE         | Negative   | Negative  | NA        | NA         | WHITE  |   NA|       |
| TCGA-A2-A3XV  | C135F   | WHITE         | Negative   | Negative  | NA        | NA         | WHITE  |   NA|       |
| TCGA-B6-A0IE  | A307_splice | WHITE         | Negative   | Negative  | NA        | NA         | WHITE  |   NA|       |
| TCGA-A7-A4SA  | P151A   | WHITE         | Negative   | Negative  | NA        | NA         | WHITE  |   NA|       |
| TCGA-JL-A3YW  | E51*    | WHITE         | Negative   | Negative  | NA        | NA         | WHITE  |   NA|       |
| TCGA-AN-A0XN  | Y126_splice | WHITE         | Negative   | Positive  | Negative  | NA         | WHITE  |   NA|       |
| TCGA-A7-A52V  | T211fs  | WHITE         | Negative   | Negative  | NA        | NA         | WHITE  |   NA|       |
| TCGA-E9-A3HO  | WT      | WHITE         | Negative   | Negative  | NA        | NA         | WHITE  |   NA|       |
| TCGA-LL-A5YM  | WT      | WHITE         | Negative   | Negative  | NA        | NA         | WHITE  |   NA|       |
| TCGA-E9-A1RG  | WT      | WHITE         | Negative   | Negative  | NA        | NA         | WHITE  |   NA|       |
| TCGA-OL-A5RZ  | WT      | WHITE         | Negative   | Negative  | NA        | NA         | WHITE  |   NA|       |
| TCGA-E9-A1RF  | WT      | WHITE         | Negative   | Negative  | NA        | NA         | WHITE  |   NA|       |
| TCGA-E9-A247  | WT      | WHITE         | Negative   | Negative  | NA        | NA         | WHITE  |   NA|       |
| TCGA-LL-A441  | WT      | WHITE         | Negative   | Negative  | NA        | NA         | WHITE  |   NA|       |
| TCGA-PE-A5DC  | WT      | WHITE         | Negative   | Negative  | NA        | NA         | WHITE  |   NA|       |
| TCGA-E9-A226  | WT      | WHITE         | Negative   | Negative  | NA        | NA         | WHITE  |   NA|       |
| TCGA-BH-A204  | WT      | WHITE         | Negative   | Negative  | NA        | NA         | WHITE  |   NA|       |
| TCGA-B6-A0RG  | WT      | WHITE         | Negative   | Negative  | NA        | NA         | WHITE  |   NA|       |
| TCGA-A7-A4SF  | WT      | WHITE         | Negative   | Negative  | NA        | NA         | WHITE  |   NA|       |
| TCGA-E2-A56Z  | WT      | WHITE         | Negative   | Negative  | NA        | NA         | WHITE  |   NA|       |
| TCGA-JL-A3YX  | WT      | WHITE         | Negative   | Negative  | NA        | NA         | WHITE  |   NA|       |
| TCGA-AC-A3W5  | WT      | WHITE         | Negative   | Negative  | NA        | NA         | WHITE  |   NA|       |
| TCGA-B6-A40C  | WT      | WHITE         | Negative   | Negative  | NA        | NA         | WHITE  |   NA|       |
| TCGA-LQ-A4E4  | WT      | WHITE         | Negative   | Negative  | NA        | NA         | WHITE  |   NA|       |
| TCGA-AC-A3TM  | WT      | WHITE         | Negative   | Negative  | NA        | NA         | WHITE  |   NA|       |
| TCGA-LL-A5YL  | WT      | WHITE         | Negative   | Negative  | NA        | NA         | WHITE  |   NA|       |
| TCGA-BH-A2L8  | WT      | WHITE         | Negative   | Negative  | NA        | NA         | WHITE  |   NA|       |
| TCGA-AC-A2FM  | WT      | WHITE         | Negative   | Negative  | NA        | NA         | WHITE  |   NA|       |
| TCGA-C8-A3M8  | WT      | WHITE         | Negative   | Negative  | NA        | NA         | WHITE  |   NA|       |
| TCGA-A2-A3XZ  | WT      | WHITE         | Negative   | Negative  | NA        | NA         | WHITE  |   NA|       |
| TCGA-OK-A5Q2  | WT      | WHITE         | Negative   | Negative  | NA        | NA         | WHITE  |   NA|       |
| TCGA-A2-A4RX  | WT  | WHITE | NA | NA | NA | NA | WHITE |
| TCGA-E9-A249  | WT  | WHITE | NA | NA | NA | NA | WHITE |
| TCGA-E9-A1QZ  | WT  | WHITE | NA | NA | NA | NA | WHITE |
| TCGA-E9-A1RE  | WT  | WHITE | NA | NA | NA | NA | WHITE |
| TCGA-B6-A0I2  | WT  | WHITE | NA | NA | NA | NA | WHITE |
| TCGA-E9-A1R7  | WT  | WHITE | NA | NA | NA | NA | WHITE |
Reference List

(1) Chen S, Chen Y, Hu C, Jing H, Cao Y, Liu X. Association of clinicopathological features with UbcH10 expression in colorectal cancer. *J Cancer Res Clin Oncol* 2010 March;136(3):419-26.

(2) Jiang L, Bao Y, Luo C et al. Knockdown of ubiquitin-conjugating enzyme E2C/UbcH10 expression by RNA interference inhibits glioma cell proliferation and enhances cell apoptosis in vitro. *J Cancer Res Clin Oncol* 2010 February;136(2):211-7.

(3) Shimo A, Tanikawa C, Nishidate T et al. Involvement of kinesin family member 2C/mitotic centromere-associated kinesin overexpression in mammary carcinogenesis. *Cancer Sci* 2008 January;99(1):62-70.

(4) Nakamura Y, Tanaka F, Haraguchi N et al. Clinicopathological and biological significance of mitotic centromere-associated kinesin overexpression in human gastric cancer. *Br J Cancer* 2007 August 20;97(4):543-9.

(5) Yim EK, Tong SY, Ho EM, Bae JH, Um SJ, Park JS. Anticancer effects on TACC3 by treatment of paclitaxel in HPV-18 positive cervical carcinoma cells. *Oncol Rep* 2009 February;21(2):549-57.

(6) Zhang SH, Xu AM, Chen XF, Li DH, Sun MP, Wang YJ. Clinicopathologic significance of mitotic arrest defective protein 2 overexpression in hepatocellular carcinoma. *Hum Pathol* 2008 December;39(12):1827-34.

(7) Shang X, Burlingame SM, Okcu MF et al. Aurora A is a negative prognostic factor and a new therapeutic target in human neuroblastoma. *Mol Cancer Ther* 2009 August;8(8):2461-9.

(8) Inoda S, Hirohashi Y, Torigoe T et al. Cep55/c10orf3, a tumor antigen derived from a centrosome residing protein in breast carcinoma. *J Immunother* 2009 June;32(5):474-85.

(9) Chen CH, Chien CY, Huang CC et al. Expression of FLJ10540 is correlated with aggressiveness of oral cavity squamous cell carcinoma by stimulating cell migration and invasion through increased FOXM1 and MMP-2 activity. *Oncogene* 2009 July 30;28(30):2723-37.

(10) Zheng H, Hu W, Deavers MT et al. Nuclear cyclin B1 is overexpressed in low-malignant-potential ovarian tumors but not in epithelial ovarian cancer. *Am J Obstet Gynecol* 2009 October;201(4):367-6.

(11) de HT, Hasselt N, Troost D et al. Molecular risk stratification of medulloblastoma patients based on immunohistochemical analysis of MYC, LDHB, and CCNB1 expression. *Clin Cancer Res* 2008 July 1;14(13):4154-60.

(12) Zhang K, Hu S, Wu J et al. Overexpression of RRM2 decreases thrombspondin-1 and increases VEGF production in human cancer cells in vitro and in vivo: implication of RRM2 in angiogenesis. *Mol Cancer* 2009;8:11.

(13) Duxbury MS, Ito H, Zinner MJ, Ashley SW, Whang EE. RNA interference targeting the M2 subunit of ribonucleotide reductase enhances pancreatic adenocarcinoma chemosensitivity to gemcitabine. *Oncogene* 2004 February 26;23(8):1539-48.
(14) Boukovinas I, Papadaki C, Mendez P et al. Tumor BRCA1, RRM1 and RRM2 mRNA expression levels and clinical response to first-line gemcitabine plus docetaxel in non-small-cell lung cancer patients. *PLoS One* 2008;3(11):e3695.

(15) Zhao L, Qin LX, Ye QH et al. KIAA0008 gene is associated with invasive phenotype of human hepatocellular carcinoma—a functional analysis. *J Cancer Res Clin Oncol* 2004 December;130(12):719-27.

(16) Szponar A, Zubakov D, Pawlak J, Jauch A, Kovacs G. Three genetic developmental stages of papillary renal cell tumors: duplication of chromosome 1q marks fatal progression. *Int J Cancer* 2009 May 1;124(9):2071-6.

(17) Tsunoda N, Kokuryo T, Oda K et al. Nek2 as a novel molecular target for the treatment of breast carcinoma. *Cancer Sci* 2009 January;100(1):111-6.

(18) Xiao GF, Tang HH. [Expression and clinical significance of highly expressed protein in cancer (Hec 1) in human primary gallbladder carcinoma]. *Xi Bao Yu Fen Zi Mian Yi Xue Za Zhi* 2008 September;24(9):910-2.

(19) Chen MF, Lee KD, Lu MS et al. The predictive role of E2-EPF ubiquitin carrier protein in esophageal squamous cell carcinoma. *J Mol Med* 2009 March;87(3):307-20.

(20) Park SH, Yu GR, Kim WH, Moon WS, Kim JH, Kim DG. NF-Y-dependent cyclin B2 expression in colorectal adenocarcinoma. *Clin Cancer Res* 2007 February 1;13(3):858-67.

(21) Taniuchi K, Nakagawa H, Nakamura T et al. Down-regulation of RAB6KIFL/KIF20A, a kinesin involved with membrane trafficking of discs large homologue 5, can attenuate growth of pancreatic cancer cell. *Cancer Res* 2005 January 1;65(1):105-12.

(22) Kang JU, Koo SH, Kwon KC, Park JW, Kim JM. Gain at chromosomal region 5p15.33, containing TERT, is the most frequent genetic event in early stages of non-small cell lung cancer. *Cancer Genet Cytogenet* 2008 April 1;182(1):1-11.

(23) Jiang R, Xia Y, Li J et al. High expression levels of IKKalpha and IKKbeta are necessary for the malignant properties of liver cancer. *Int J Cancer* 2010 March 1;126(5):1263-74.

(24) Mitra A, Jameson C, Barbachano Y et al. Overexpression of RAD51 occurs in aggressive prostatic cancer. *Histopathology* 2009 December;55(6):696-704.

(25) Dankof A, Fritzsche FR, Dahl E et al. KPNA2 protein expression in invasive breast carcinoma and matched peritumoral ductal carcinoma in situ. *Virchows Arch* 2007 November;451(5):877-81.

(26) Naoe M, Ogawa Y, Morita J et al. Expression of the fluoropyrimidine-metabolizing enzymes in bladder cancers as measured by the Danenberg tumor profile. *Oncol Res* 2009;18(4):153-62.

(27) Seo J, Chung YS, Sharma GG et al. Cdt1 transgenic mice develop lymphoblastic lymphoma in the absence of p53. *Oncogene* 2005 December 8;24(55):8176-86.

(28) Singh P, Yang M, Dai H et al. Overexpression and hypomethylation of flap endonuclease 1 gene in breast and other cancers. *Mol Cancer Res* 2008 November;6(11):1710-7.
(29) Arai M, Kondoh N, Imazeki N et al. The knockdown of endogenous replication factor C4 decreases the growth and enhances the chemosensitivity of hepatocellular carcinoma cells. *Liver Int* 2009 January;29(1):55-62.

(30) Karanikolas BD, Figueiredo ML, Wu L. Comprehensive evaluation of the role of EZH2 in the growth, invasion, and aggression of a panel of prostate cancer cell lines. *Prostate* 2010 May 1;70(6):675-88.

(31) Sugiura T, Nagano Y, Noguchi Y. DDX39, upregulated in lung squamous cell cancer, displays RNA helicase activities and promotes cancer cell growth. *Cancer Biol Ther* 2007 June;6(6):957-64.

(32) Lee H, Kim D, Dan HC et al. Identification and characterization of putative tumor suppressor NGB, a GTP-binding protein that interacts with the neurofibromatosis 2 protein. *Mol Cell Biol* 2007 March;27(6):2103-19.

(33) Ooe A, Kato K, Noguchi S. Possible involvement of CCT5, RGS3, and YKT6 genes up-regulated in p53-mutated tumors in resistance to docetaxel in human breast cancers. *Breast Cancer Res Treat* 2007 March;101(3):305-15.

(34) Karmakar S, Foster EA, Smith CL. Estradiol downregulation of the tumor suppressor gene BTG2 requires estrogen receptor-alpha and the RBA corepressor. *Int J Cancer* 2009 April 15;124(8):1841-51.

(35) Cheng CJ, Lin YC, Tsai MT et al. SCUBE2 suppresses breast tumor cell proliferation and confers a favorable prognosis in invasive breast cancer. *Cancer Res* 2009 April 15;69(8):3634-41.

(36) Wang Y, Ma Y, Lu B, Xu E, Huang Q, Lai M. Differential expression of mimecan and thioredoxin domain-containing protein 5 in colorectal adenoma and cancer: a proteomic study. *Exp Biol Med (Maywood)* 2007 October;232(9):1152-9.

(37) Majid SM, Liss AS, You M, Bose HR. The suppression of SH3BGRL is important for v-Rel-mediated transformation. *Oncogene* 2006 February 2;25(5):756-68.

(38) Shubbar E, Kovacs A, Hajizadeh S et al. Elevated cyclin B2 expression in invasive breast carcinoma is associated with unfavorable clinical outcome. *BMC Cancer* 2013;13:1.

(39) Pollok S, Bauerschmidt C, Sanger J, Nasheuer HP, Grosse F. Human Cdc45 is a proliferation-associated antigen. *FEBS J* 2007 July;274(14):3669-84.

(40) Takahashi S, Fusaki N, Ohta S et al. Downregulation of KIF23 suppresses glioma proliferation. *J Neurooncol* 2012 February;106(3):519-29.

(41) Sircar K, Huang H, Hu L et al. Mitosis phase enrichment with identification of mitotic centromere-associated kinesin as a therapeutic target in castration-resistant prostate cancer. *PLoS One* 2012;7(2):e31259.

(42) Shimo A, Nishidate T, Ohta T, Fukuda M, Nakamura Y, Katagiri T. Elevated expression of protein regulator of cytokinesis 1, involved in the growth of breast cancer cells. *Cancer Sci* 2007 February;98(2):174-81.

(43) Zhao ZK, Wu WG, Chen L et al. Expression of UbcH10 in pancreatic ductal adenocarcinoma and its correlation with prognosis. *Tumour Biol* 2013 June;34(3):1473-7.
(44) Fristrup N, Birkenkamp-Demtroder K, Reinert T et al. Multicenter validation of cyclin D1, MCM7, TRIM29, and UBE2C as prognostic protein markers in non-muscle-invasive bladder cancer. *Am J Pathol* 2013 February;182(2):339-49.

(45) Wang WY, Hsu CC, Wang TY et al. A gene expression signature of epithelial tubulogenesis and a role for ASPM in pancreatic tumor progression. *Gastroenterology* 2013 November;145(5):1110-20.

(46) Jiang BY, Zhang XC, Su J et al. BCL11A overexpression predicts survival and relapse in non-small cell lung cancer and is modulated by microRNA-30a and gene amplification. *Mol Cancer* 2013;12:61.

(47) Sun XP, Dong X, Lin L et al. Up-regulation of survivin by AKT and hypoxia-inducible factor 1alpha contributes to cisplatin resistance in gastric cancer. *FEBS J* 2014 January;281(1):115-28.

(48) Hayama S, Daigo Y, Yamabuki T et al. Phosphorylation and activation of cell division cycle associated 8 by aurora kinase B plays a significant role in human lung carcinogenesis. *Cancer Res* 2007 May 1;67(9):4113-22.

(49) Mi YJ, Gao J, Xie JD et al. Prognostic relevance and therapeutic implications of centromere protein F expression in patients with esophageal squamous cell carcinoma. *Dis Esophagus* 2013 August;26(6):636-43.

(50) Dai Y, Liu L, Zeng T et al. Characterization of the oncogenic function of centromere protein F in hepatocellular carcinoma. *Biochem Biophys Res Commun* 2013 July 12;436(4):711-8.

(51) Mascareno EJ, Belashov I, Siddiqui MA, Liu F, Dhar-Mascareno M. Hexim-1 modulates androgen receptor and the TGF-beta signaling during the progression of prostate cancer. *Prostate* 2012 June 15;72(9):1035-44.

(52) Stypula-Cyrus Y, Mutyal NN, Dela CM et al. End-binding protein 1 (EB1) up-regulation is an early event in colorectal carcinogenesis. *FEBS Lett* 2014 March 3;588(5):829-35.

(53) Zhang G, Zhang Z, Liu Z. Polo-like kinase 1 is overexpressed in renal cancer and participates in the proliferation and invasion of renal cancer cells. *Tumour Biol* 2013 June;34(3):1887-94.

(54) Hardy S, Wong NN, Muller WJ, Park M, Tremblay ML. Overexpression of the protein tyrosine phosphatase PRL-2 correlates with breast tumor formation and progression. *Cancer Res* 2010 November 1;70(21):8959-67.

(55) Demeure MJ, Coan KE, Grant CS et al. PTTG1 overexpression in adrenocortical cancer is associated with poor survival and represents a potential therapeutic target. *Surgery* 2013 December;154(6):1405-16.

(56) Ke B, Wu LL, Liu N, Zhang RP, Wang CL, Liang H. Overexpression of stathmin 1 is associated with poor prognosis of patients with gastric cancer. *Tumour Biol* 2013 October;34(5):3137-45.

(57) Sonego M, Schiappacassi M, Lovisa S et al. Statmin regulates mutant p53 stability and transcriptional activity in ovarian cancer. *EMBO Mol Med* 2013 May;5(5):707-22.

(58) Khurana A, McKean H, Kim H et al. Silencing of HSulf-2 expression in MCF10DCIS.com cells attenuate ductal carcinoma in situ progression to invasive ductal carcinoma in vivo. *Breast Cancer Res* 2012;14(2):R43.
(59) Hao J, Xu A, Xie X et al. Elevated expression of UBE2T in lung cancer tumors and cell lines. *Tumour Biol* 2008;29(3):195-203.

(60) Ueki T, Park JH, Nishidate T et al. Ubiquitination and downregulation of BRCA1 by ubiquitin-conjugating enzyme E2T overexpression in human breast cancer cells. *Cancer Res* 2009 November 15;69(22):8752-60.

(61) Liu Z, Ling K, Wu X et al. Reduced expression of cenp-e in human hepatocellular carcinoma. *J Exp Clin Cancer Res* 2009;28:156.

(62) Hauser S, Ulrich T, Wurster S, Schmitt K, Reichert N, Gaubatz S. Loss of LIN9, a member of the DREAM complex, cooperates with SV40 large T antigen to induce genomic instability and anchorage-independent growth. *Oncogene* 2012 April 5;31(14):1859-68.

(63) Huang CJ, Yang SH, Lee CL, Cheng YC, Tai SY, Chien CC. Ribosomal protein S27-like in colorectal cancer: a candidate for predicting prognoses. *PLoS One* 2013;8(6):e67043.

(64) He H, Sun Y. Ribosomal protein S27L is a direct p53 target that regulates apoptosis. *Oncogene* 2007 April 26;26(19):2707-16.

(65) Doolan P, Clynes M, Kennedy S et al. TMEM25, REPS2 and Meis 1: favourable prognostic and predictive biomarkers for breast cancer. *Tumour Biol* 2009;30(4):200-9.