

Oligo GEArray® Human Cancer Microarray

HybTube Format Cat. No. [OHS-802](#)
HybPlate Format Cat. No. [EHS-802](#)

Description

The Oligo GEArray® Human Cancer Microarray profiles the expression of 440 genes that include members of several different pathways frequently altered during the progression of cancer. This array allows you to examine specific aspects of tumor progression. The genes represented by this array include but are not limited to tumor suppressors, oncogenes, signal transduction molecules, growth factors, growth factor receptors, and angiogenesis factors. Through a simple side-by-side hybridization experiment you can determine differential gene expression between your samples.

Functional Gene Groupings

Apoptosis:

Anti-Apoptosis: AKT1, BCL2, BRAF, CCL2, FOXO1A, HDAC1, IER3, IGF1R, MYBL2, NFKB1, NOTCH2, PEA15, RELA, SEMA4D, TGFB1, TNF, TNFRSF6, VHL.

Caspase Activation: F2R, STAT1, TNFRSF10A, TNFRSF10B.

Induction of Apoptosis Resulting From DNA Damage Response Signal Transduction: ABL1, TP53, TP73.

Induction of Apoptosis: DCC, NME3, BAX, NOTCH2, TNFRSF10A, TNFRSF10B, TNFRSF6, TRADD.

Induction of Apoptosis by Signals: Intracellular and Extracellular, by Death Domain, and by Hormones: BTK, TIMP3, BAX, FASTK, SIVA TP53, CDKN1A, CUL1, TNFRSF10A, TNFRSF10B.

Regulation of Apoptosis: BAX, BCL2, BRCA1, PEA15, TNFRSF10B, TNFRSF6.

Factors Involved in Other Aspects of Apoptosis: BRCA1, E2F1, FASTK, IL1B, RAF1, RIPK1, SIVA, TNFRSF1A, TNFRSF1B, TNFSF7, TP53BP2, TRADD, BAX, BCL2, F2R, IER3, NFKB1, PEA15, TNF, TNFRSF10A, TNFRSF10B, TNFRSF6, TP53, TP73.

Other Apoptosis-Related Genes: VDAC1, BAX, VDAC1.

Cell Cycle:

Cell Cycle Arrest: CGRRF1, MYC, PA2G4, TBRG4, CDKN1A, CDKN1B, CDKN1C, CDKN2A, CDKN2B, CDKN2D, CUL1, MAPK12, NOTCH2.

Cell Cycle Checkpoint: RB1, BRCA1, CDKN2A, TP53.

Factors Involved in Other Aspects of the Cell Cycle: ATM, CCND1, CCND2, CCND3, CCNE1, CDC20, CDK4, CDK5, CDKN1B, CDKN1C, CDKN2A, CDKN2B, CDKN2D, CHAF1A, E2F3, MAPK12, MAPK13, MCM2, PLK2, RBBP4, RBL2, SEPT6, TAF1, TFDP1, TFDP2, CDKN1A, CUL1, E2F1, TP53BP2.

Regulation of the Cell Cycle: APC, ING1, KLK10, MCC, MSH2, NF1, NF2, NME1, NME2, PTCH, PTEN, RAP1A, WT1, ATM, BAX, BRCA1, CDKN1C, CDKN2A, CDKN2B, CDKN2D, DCC, MAPK12, RB1, RBL2, TP53, TP73, VHL, AXL, BRCA2, CDC25A, CDC25B, CDK9, CDKL1, CLK1, CSK, E2F5, FRAP1, GSPT1, IFITM1, KRAS2, LCK, MAPRE1, NRAS, PCNA, PCTK1, PCTK2, PDGFA, PDGFB, PIK3CB, PTMA, PTN, SFN, TGFA, VEGF, WEE1, ABL1, APC, ATM, BCL2, CCND1, CCND2, CCND3, CCNE1, CDC20, CDK4, CDKN1A, CDKN1B, E2F1, E2F3, F2R, IGF1R, IL1B, MYBL2, RAP1A, RB1, STAT1, TFDP1, TFDP2, TGFB1, TP53BP2, VHL.

Cell Growth and Differentiation:

Cell Differentiation and Cell Fate: NOTCH1, NOTCH4, NRG1, SKI, SKIL, NOTCH2.

Cell Growth and Maintenance: ABL1, ABL2, ARHGEF5, AXL, BCL2, BRAF, CBFB, CCND1, CDK4, CSF1R, DEK, ETV1, ETV6, FES, FGFR1, FGR, FOS, FOXO1A, GNAS, IER3, IGFBP3, IGFBP4, IGFBP5, JUN, KIT, KRAS2, LCK, LYN, MAP3K8, MAS1, MDM2, MET, MLLT3, MYB, MYC, MYCN, NF1, NFKB2, NOTCH2, NPM1, NRAS, PDGFA, PDGFB, PHB, PIM1, RAF1, RARA, RARB, REL, RET, RHOA, RHOB, RHOC, SEMA3C, SKI, SKIL, SMO, SRC, TGFB1, VEGF, WNT1, WNT3, YES1.

Cell Proliferation: CDC25, CCYR61, EGFR, ERBB2, ERBB4, GAS6, HDGF, KITLG, LRPAP1, MT3, OSM, PDGFRA, TGFBI, CDC25A, CDK4, CDK5, CDK9, CLK1, CSF1R, E2F1, FES, GSPT1, IGFBP4, IL1B, MAPRE1, MAS1, MET, MYC, PA2G4, PCNA, PDGFA, PDGFB, PTCH, PTN, RAF1, SFN, TFDP1, TGFA, TGFB1, NFSF7, VEGF.

Growth Factors: GDF15, HDGF, IL1B, KITLG, NRG1, PDGFA, PDGFB, PTN, TGFA, TGFB1, VEGF.

Regulation of Cell Proliferation, Differentiation, Growth, and Volume: BCL2, BRCA1, CAPN1, CAPNS1, CDC25B, CDC2L5, CDK10, CDKN1A, CDKN1B, CDKN1C, CDKN2A, CDKN2B, CDKN2D, CGRRF1, CLNS1A, CUL1, CYR61, DLG3, FOSL1, IFITM1, IGF1R, IGFBP3, IGFBP4, IGFBP5, IL1B, MDM2, MDM4, MT3, NF1, NF2, NME1, NME2, NOTCH2, NOTCH4, OSM, PTN, RBBP4, SOCS1, SOCS3, TBRG4, TGFB2, TIMP1, TOB1, TSG101, VEGF, VHL.

Cell Motility:

Cell Migration and Motility: FN1, GNA13, HMMR, NEO1, RAC1, SPINT2, STAT3, THBS1, TPBG, F2R.

Cell-Cell Adhesion: CD44, ICAM1.

Cell-Matrix Adhesion: ILK, ITGA3, ITGA6, ITGB4, NID, CD44.

Metalloendopeptidases (MMPs) and MMP inhibitors: ACY1, ANPEP, MME, MMP1, MMP14, MMP17, MMP2, PA2G4, TIMP1, TIMP3.

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7320 Executive Way, Suite 101; Frederick, MD 21704 USA

Tel: 1.888.503.3187, 301.682.9200. **Fax:** 1.888.465.9859, 301.682.7300. **Web:** www.SuperArray.com

Oligo GEArray® Human Cancer Microarray

Signal Transduction:

Cell Surface Receptor-Linked Signal Transduction: CBLB, CD59, FZD2, FZD5, FZD9, MYD88, STC1, CCL2, FGFR1, IFITM1, PDGFA, PDGFRA, SMO.

Frizzled and Frizzled-2 Signaling Pathways: DVL1, DVL3, TLE1, FZD9, WNT2, WNT2B, WNT5A, WNT1, WNT3.

G-Protein Coupled Receptor (GPCR) Protein Signaling Pathway: CRHR1, GNB2, GPR39, NMBR, PIK3CG, RGS19, AKT1, CCL2, F2R, FZD2, FZD5, FZD9, GNA13, GNAS, MAS1, PIK3CB, SMO.

Insulin Receptor Signaling Pathway: PDPK1, IGF1R.

Integrin-Mediated Signaling Pathway: ILK, ITGA3, ITGA6, ITGB4.

Intracellular Signaling Cascade: FKBP8, GRB2, JAK1, PRKAR1A, RASGRF1, SHB, STAT2, STAT5B, ZAP70, ABL1, ABL2, BRAF, BTK, CBLB, CSK, DVL1, DVL3, FES, FGR, LCK, LYN, RAC1, RAF1, SOCS1, SOCS3, SRC, STAT1, STAT3, YES1.

JAK-STAT Cascade: CCL2, SOCS1, STAT1, STAT2, STAT3, STAT5B.

Notch Signaling Pathway: NOTCH2, NOTCH4.

RAS Protein Signal Transduction: GRB2, LCK, NF1.

Rho Protein Signal Transduction: ARHGAP5, RHOD, RHOA, RHOB.

Small GTPase-Mediated Signal Transduction: ACK1, RAB5A, SIAH2, KRAS2, NRAS, RAC1, RAP1A, RASGRF1, RGS19, RHOA, RHOB, RHOC, RHOD.

Wnt Receptor Signaling Pathway: CSNK1G2, CTNNB1, FRZB, TCF7L2, APC, DVL1, DVL3, FZD2, FZD5, FZD9, TLE1, WNT1, WNT2, WNT2B, WNT3, WNT5A.

Other Cancer-Related Genes: AARS, ABCB1, ABCC4, ABI2, ACP2, ADSL, AK1, AKR1C2, ALB, ANXA5, ANXA7, AP2M1, ARID4A, ASNS, ATF4, ATP5B, ATP5O, BARD1, BHLHB2, BLMH, CANX, CAP1, CAV1, CCT5, CD24, CEBPG, CENPC1, CIB1, CKMT1, CLK2, CLK3, CLTC, COL1A1, COL6A3, COX6C, COX7A2, CRAT, CTNNA1, CTPS, CTSC, CTSD, DCN, DDX10, DHCR7, DHRS2, DHX8, EGR1, EIF5, EPHA2, ERBB3, ERCC3, ETV3, FBN1, FBN2, FOSL2, FOXG1A, FTL, G22P1, GCN5L2, GNB2L1, GSK3A, GTF2I, HPRT1, HRB, HSPA4, HSPA5, HSPA8, HSPB1, HSPH1, HYAL1, HYOU1, ID1, ID2, IDUA, IGF2R, IRF3, JARID1A, JUNB, JUND, K-ALPHA-1, KPNA2, KRT18, KRT2A, KRT9, LAMB1, LAMP2, LCN2, LEP, LITAF, LTF, LZTR1, MADH1, MAP2K2, MAPKAPK3, MARS, MCM4, MGST1, MICB, MND4, MSH6, MYBL1, MYCL1, MYL9, MYLK, NINJ1, NQO1, NR1D1, NR2F1, NR2F6, NSEP1, PABPC1, PCTK3, PFDN4, PFDN5, PGAM1, PIK3CA, PKM2, PKMYT1, PPAR, PPARG, PPIH, PPP1CA, PPP2R5A, PRDX2, PRDX4, PRKCBP1, PRNP, PRSS15, PSMA1, PTGS1, PTPRN, RAD50, RALBP1, REA, RELB, RFC2, RPN2, RPS6KB1, RRM1, SARS, SELENBP1, SEPP1, SERPINH1, SFPQ, SFRS7, SHH, SLC16A1, SLC1A4, SLC20A1, SMPD1, SNAI2, SND1, SNRNP2, SOD1, SORT1, SPRY2, SRPX, TBL3, TCF1, TFAP2C, TGFBR3, TIE, TJP1, TK1, TNK1, TP53I3, TPT1, TRAM1, TRRAP, TUFM, TXNRD1, TYRO3, UBC, UBE2L6, UCHL1, USP7, VIL2, XRCC1, YWHAB, YWHAZ, ZNF9.

Storage Conditions

Please check the kit components immediately after you receive this package. SuperArray is only responsible for missing items reported within two (2) business days of receipt.

GEArray microarrays are shipped at ambient temperature enclosed in either a HybTube or ExpressPak Storage Box. They should be stored at -20°C upon receipt.