Study of the DNA-methylation status in primary breast cancer using bioinformatics and methylation specific PCR

Thesis

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List of Abbreviations

AJCC American Joint Committee on Cancer

ALL Acute lymphoblastic leukemia
APC Adenomatous Polyposis Coli
ATM Ataxia telangiectasia mutated

BCL-2 B-cell leukemia/lymphoma

BRCA1 Breast cancer 1

BRIP1 BRCA1 interacting protein C-terminal helicase 1
BTB BCL6(B-cell lymphoma 6 protein) forms a tightly

intertwined butterfly-shaped homodimer

β-Catenin Beta-cadherin-associated protein

CDH1 Cadherin 1, type 1, E-cadherin CDKs Cyclin-dependent kinases CHEK2 Checkpoint homolog Chromosome instability

CIS Carcinoma in situ

c-myc Cellular-myelocytomatosis. A transcription factor

CpGCytosine (phosphate) GuanineCRBPCytoplasmic retinol binding protein

CRC Colorectal cancer

CTNNB1 Catenin (cadherin-associated protein), beta 1

DCIS Ductal carcinoma in situ
DNMTs DNA methyltransferases

EB1 End-binding 1 protein

E-cadherin Epithelial - Calcium dependent adhesion molecules

EGFR Endothelial growth factor receptor ELISA Enzyme-linked immunosorbent assay

ECM Extracellular matrix

ER Estrogen receptors

HDAC Histone Deacetylase enzymes HDLG Human disc large protein

HER2 Human Epidermal Growth Factor Receptor 2
HPLC High performance liquid chromatography

HPV Human Papilloma Virus

HS3ST2 Heparan sulfate 3-O-sulfotransferase gene

HSulf Heparan sulfotransferase

HSPGs Heparan sulfate proteoglycans

IBC Inflammatory breast cancer

Kaiso Zinc finger and BTB domain-containing protein 33

LCIS Lobular carcinoma in situ

MAGE The melanoma antigen gene
MAPK Mitogen-activated protein kinase

Mc-MSP melting-curve analysis

MBPs Methyl-CpG binding proteins

MBD Methyl-CpG binding domain proteins

MeCP2 Methyl CpG binding protein 2

MGMT Methylguanine-DNA methyltransferase,

MI Methylation index

MS-PCR Methylation specific PCR

MS-RDA Methylation-sensitive representational difference

analysis

Muc1 Mucin1 gene

NPV Negative predictive value NSCLC Non-small-cell lung cancer

NuRD The nucleosome remodelling and histone deacetylase

complex

OSCC Oral squamous cell carcinoma

PALB2 Partner and localizer of BRCA2

PBS Phosphate buffer saline

PMA Percentage of methylation allele
PMF-1 Polyamine modulated factor-1
POZ Pox virus and Zinc finger
PPV Positive predictive value
PR Progesterone receptors

PTP-BL Protein tyrosine phosphatase, non-receptor type 13

PTEN Phosphatase and tensin homolog

QMSP Quantitative Methylation Specific PCR

RARbeta2 Retinoic acid receptor, beta

RASSF1A Ras association domain family member 1A

Rb Retinoblastoma gene

RLGS-M Restriction Landmark Genomic Scanning for

Methylation

SCC Squamous cell carcinoma

SPSS Statistical Package for the Social Sciences

STS Soft tissue sarcoma

TA Telomerase activity

TBE buffer Trisma, Boric and EDTA

Tcf T-cell factor

TIMPs Tissue inhibitors of matrix metalloproteinase

TNM Tumor, lymph node, and metastasis

TP1 Telomerase associated protein

TP53 Tumor protein p53

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