**Abbreviation**

AIC: Akaike information criterion

ASCO/CAP: American Society of Clinical Oncology/College of American Pathologists

ATCC: American Type Culture Collection

AUC: Area under the curve

AZA: 5-aza-2′-deoxycytidine

bHLH: Basic helix-loop-helix

BL-1: Basal-like 1

BL-2: Basal-like 2

CDKL2: Cyclin-dependent kinase like 2

CHL1: Cell adhesion molecule L1 like

CI: Confidence intervals

CpG: Cytosine and guanine separated by a phosphate

CT: Chemotherapy

Ct: Cycle threshold

DC: Discovery cohort

DMCpGs: Differentially methylated CpG sites

DNA: Deoxyribonucleic acid

E2F4: E2F transcription factor 4

EMT: Epithelial-mesenchymal transition

ER: Estrogen receptors

EVC2: EvC ciliary complex subunit 2

FERD3L: Fer3-like bHLH transcription factor

FFPE: Formalin-fixed paraffin-embedded

GAPDH: Glyceraldehyde-3-phosphate dehydrogenase

GO: Gene ontology

HER2: Erb-b2 receptor tyrosine kinase 2

HOXA5: Homeobox A5

IHC: Immunohistochemistry

LAR: Luminal androgen receptor

LEF1: Lymphoid enhancer binding factor 1

M: Mesenchymal

MethHc: A database of DNA Methylation and gene expression in Human Cancer

NAC: Neoadjuvant chemotherapy

Non-pCR: Non-pathological complete response

NR: Non-responders

pCR: Pathological complete response

PR: Progesterone receptor

qRT-PCR: Quantitative reverse transcriptase polymerase chain reaction

R: Responders

RCB: Residual cancer burden

RNA-seq: RNA sequencing (RNA: ribonucleic acid)

ROC: Receiver operating characteristic

RT-PCR: Reverse transcriptase polymerase chain reaction

SD: Standard deviation

siRNA: Small interfering RNA

TCGA: The cancer genome atlas

TLX3: T cell leukemia homeobox 3

TN: Triple negative

TNBC: Triple-negative breast cancer

TRIP10/CIP4: Thyroid hormone receptor interactor 10

TWIST: Twist family bHLH transcription factor 1

VC: Validation cohort