Supplementary Tables:

**Supplementary Table S1:** CDK12 expression in relation to clinicopathological parameters for the unselected TMA series

**Supplementary Table S2:** CDK12 expression in relation to clinicopathological parameters for the HER2-positive Herceptin treated series

**Supplementary Table S3:** CDK12 expression in relation to clinicopathological parameters for the METABRIC TMA series

**Supplementary Table S4:** Univariate and multivariate analysis of CDK12 in the TMA cohorts

**Supplementary Table S5:** CDK12 mutations in breast cancer. Taken from cBioportal (42,43).

**Supplementary Table S6:** Correlations of CDK12 mutations, methylation, gene expression and ERBB2 copy number in primary breast cancers from TCGA

**Supplementary Table S7:** Correlations of CDK12 mutations and gene expression of DNA repair genes in primary tumors from METABRIC. P values from heteroscedastic 2-tailed, t-test

**Supplementary Table S8:** Correlations of CDK12 protein expression, and miRNA expression in primary tumors from METABRIC. Wilcoxon rank P values are corrected for multiple testing.

**Supplementary Table S9:** Correlations of CDK12 protein expression and gene expression of DNA repair genes in primary tumors from METABRIC. Limma analysis corrected for multiple testing.

**Supplementary Table S10:** Association of CDK12 absent and intermediate (0, 2-6) versus high (7-8) expression with DNA repair proteins in unselected and TNBC. P values from Fishers exact test.