

Additional file 2, Table S2.

IHC subtypes as defined in this study.

Subtype (IHC class)	Code	Rules
Luminal A	1	ER positive ($\geq 1\%$ of cells staining positive) ^a and PgR positive ($\geq 1\%$ of cells staining positive), and Ki67 $<14\%$ ^{b,c} (assessed on whole section), and HER2 negative cases (0, 1+, 2+, FISH negative)
Luminal B	2	ER positive and PgR negative independently of Grade, HER2 and Ki-67, or ER positive ^a and PgR positive, with Ki-67 $\geq 14\%$, and/or HER2 positive (3+ or 2+ FISH +), and/or Grade 3
HER-2 positive	3	ER negative and PgR negative and HER2 positive
Triple Negative	4	ER negative and PgR negative and HER2 negative

^a ER negative and PgR positive cases were considered to be a false negative ER result, and thus were categorized as ER and PgR positive

^b based on Cheang et al, 2009 [30]

^c if Ki-67 was missing, grade 1 was considered a surrogate for low Ki-67; if Ki-67 was missing and grade 2, the case was considered not evaluable