

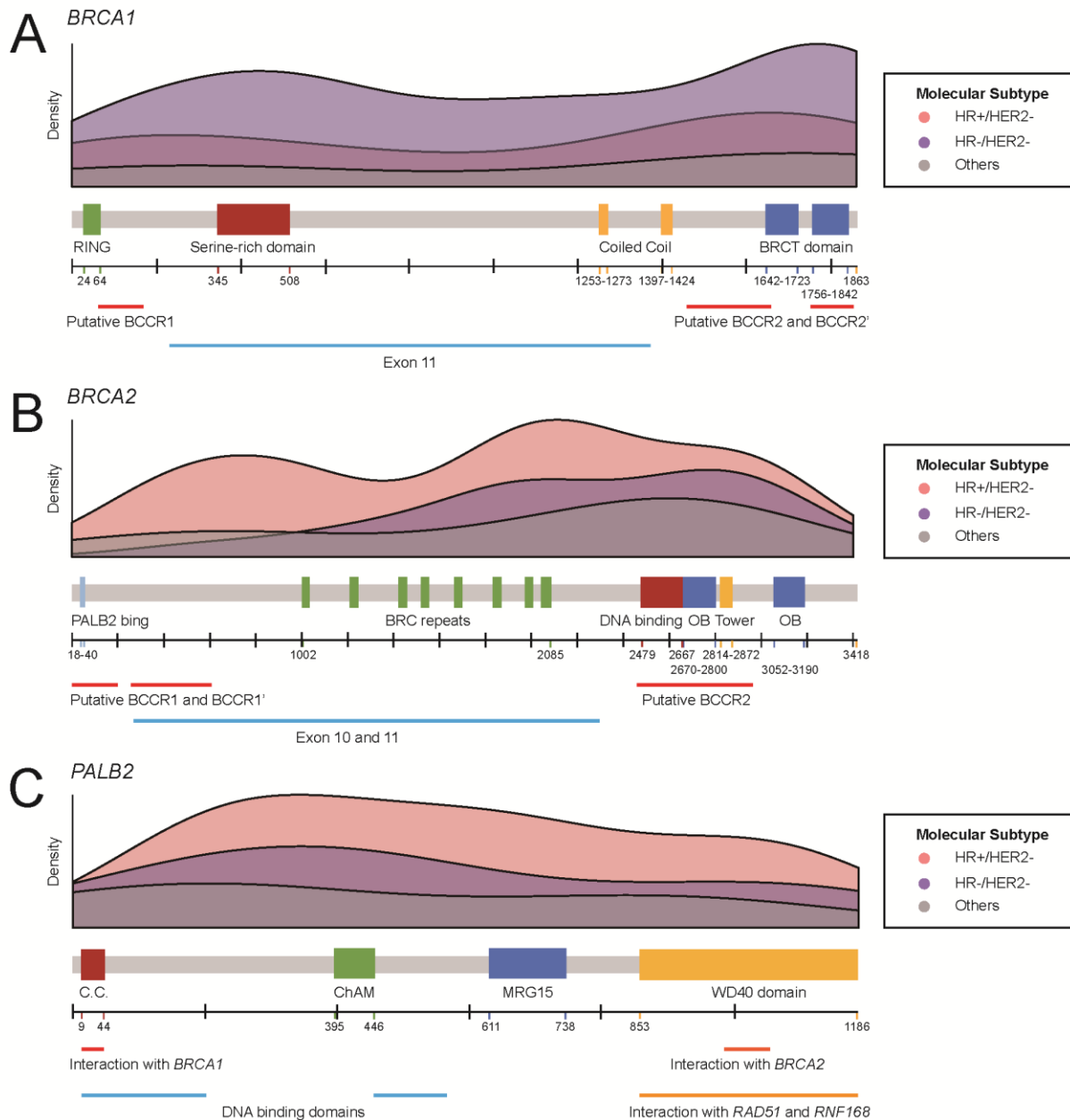


Fig. S3. Phenotype-genotype correlation and data interpretation

A) For the molecular subtype, more triple negative breast cancers were found in the *BRCA1* subgroup than the non-carriers (62.6% vs. 12.9%, $p=6.8 \times 10^{-37}$). **B-C)** However, the majorities of *BRCA2* (**B**) and other *PALB2* (**C**) carriers were HR-positive and HER2-negative (67.2% and 63.6%,

respectively). The pathogenic variants of the patients with triple negative breast cancers were enriched around the motifs of these genes.