



### Supplementary Figure S1. The landscape of human leukocyte antigen (HLA)-I homogeneity statuses in triple-negative breast cancers (TNBCs)

**A**, Summary of characteristics of HLA-I heterogeneity and homogeneity. **B**, Distribution of HLA-I heterogeneity and homogeneity. **C**, Distribution of the TNBC immune subtype and TNBC intrinsic subtype (FUSCC TNBC subtype). **D**, Kaplan-Meier curves of RFS between HLA-I heterogeneity and homogeneity. **E**, Association between specific HLA-I locus homozygosity and survival. Data show the prognostic value of individual locus (HLA-A, HLA-B, and HLA-C) as well as one or more HLA-I loci. Horizontal lines represent the 95% confidence interval. **F**, Kaplan-Meier curves of RFS between HLA-I heterogeneity and homogeneity groups in immune-inflamed patients as well as non-immune-inflamed patients. **G**, Kaplan-Meier curves of RFS between immune-inflamed patients and non-immune-inflamed patients with heterogeneity or homogeneity. (RFS, relapse-free survival; LAR, androgen receptor; IM, immunomodulatory; BLIS, basal-like and immune-suppression; MES, mesenchymal-like; ns, no significance; \*,  $P < 0.05$ )