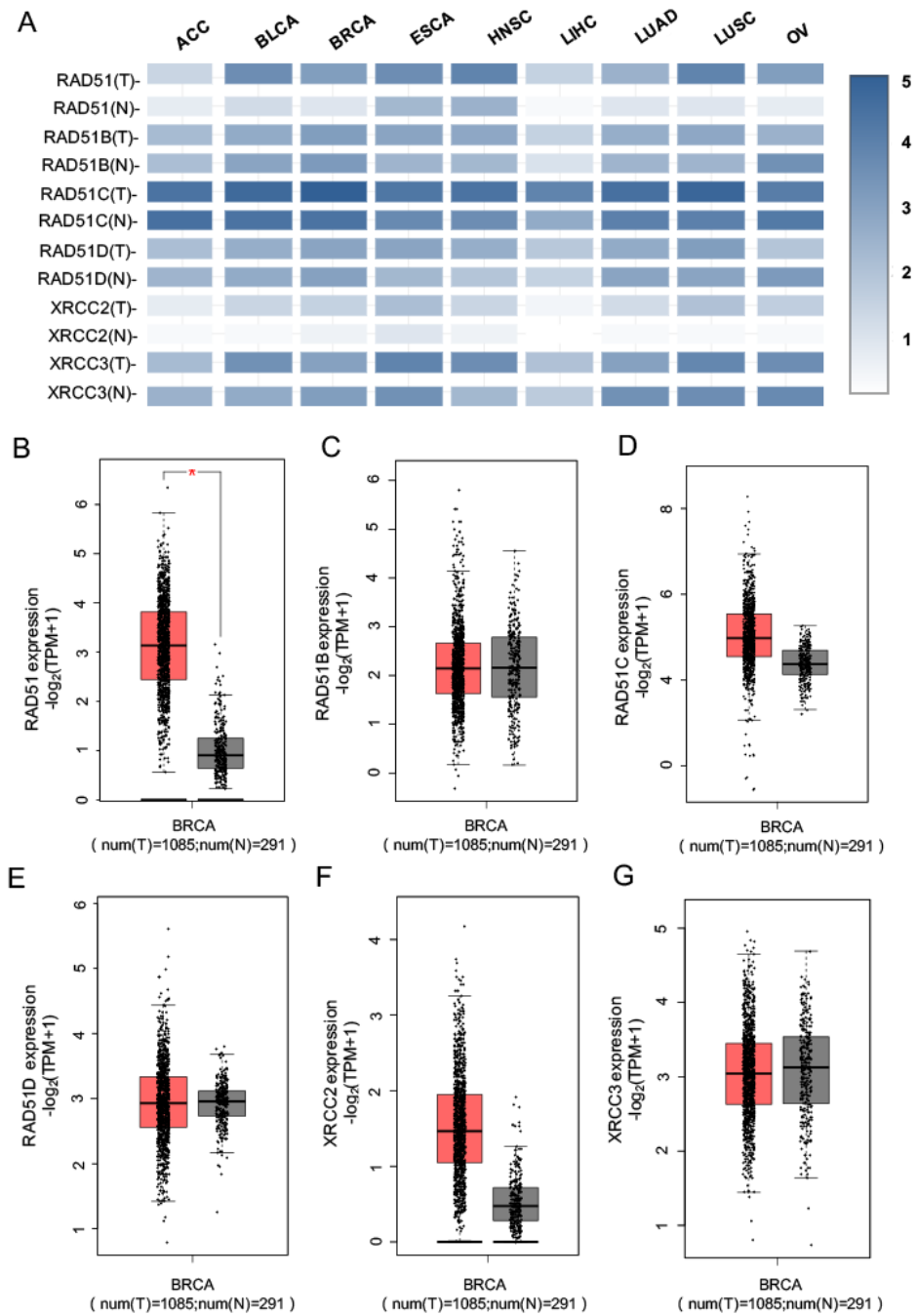**Figure S1**

Figure S1. The mRNA expression of RAD51 family genes in multiple cancer types. A. GEPIA

heatmap indicated the expression of RAD51 family members after normalization by log

2(TPM+1) for log-scale in breast cancer samples compared with normal tissues. The dark color

indicated more reads obtained for the gene. B-G. The box plots showed the RAD51 family gene

expression in breast cancer by analyzing GEPIA database. *p<0.05. The cancer abbreviation names were shown as: ACC, adrenocortical carcinoma; BLCA, bladder urothelial carcinoma; BRCA, breast invasive carcinoma; ESCA, esophageal carcinoma; HNSC, head and neck squamous cell carcinoma; LIHC, liver hepatocellular carcinoma; LUAD, lung adenocarcinoma; LUSC, lung squamous cell carcinoma; OV, ovarian serous cystadenocarcinoma.
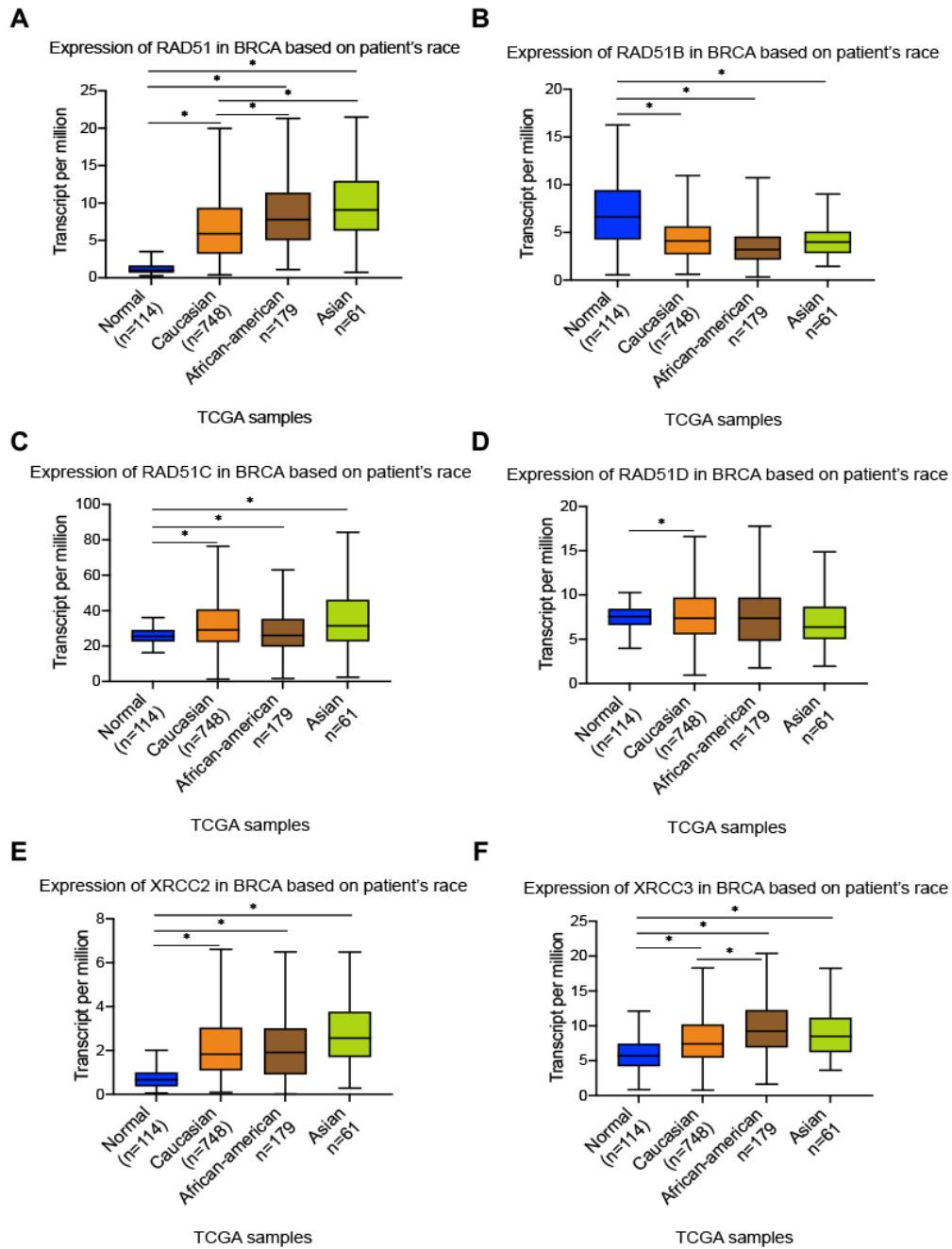
Figure S2

Figure S2. The expression of RAD51 family genes (RAD51, RAD51B, RAD51C, RAD51D, XRCC2, and XRCC3) (A-F) and its association with the races of breast cancer patients. $*p<0.05$.