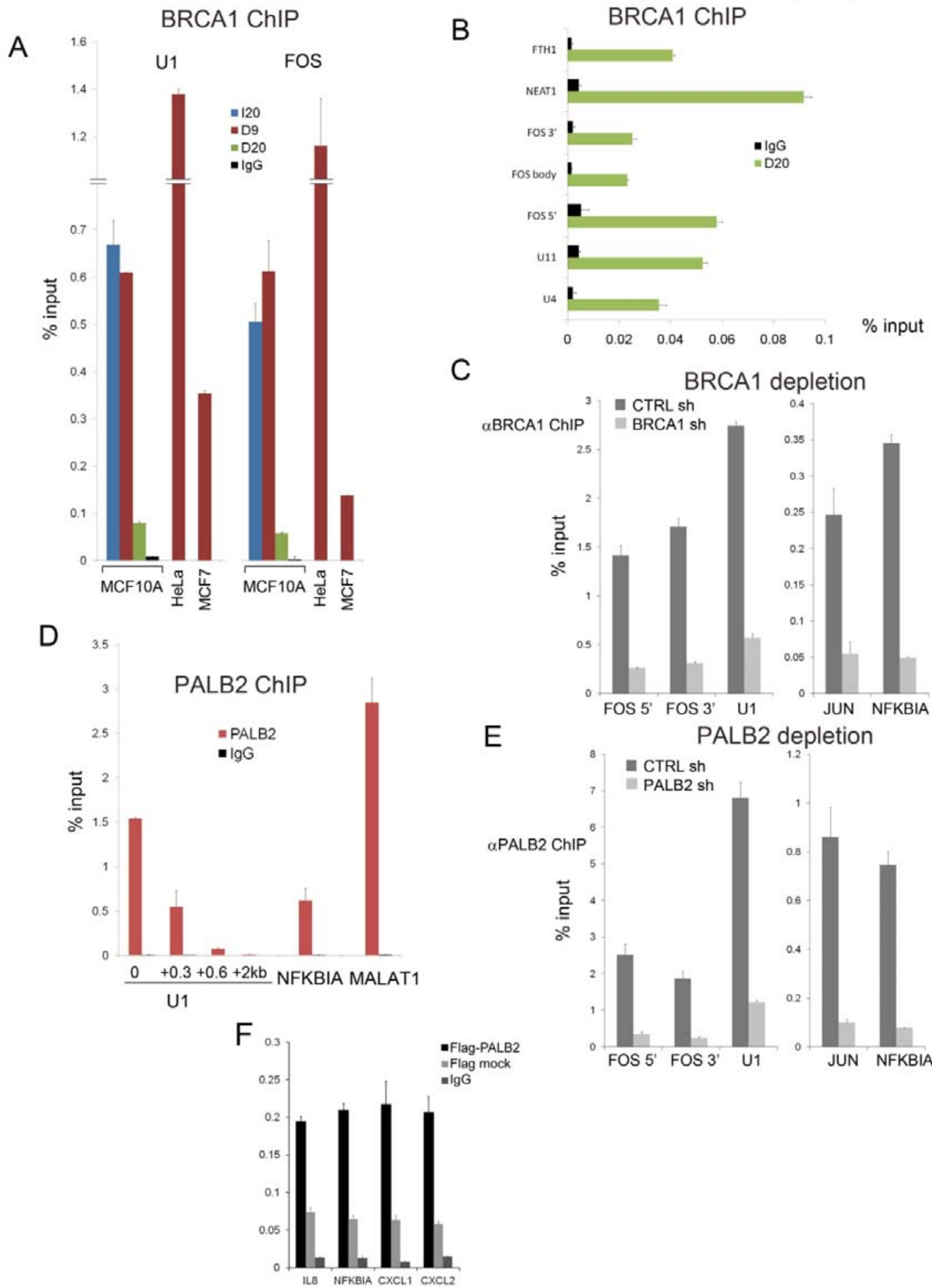

Supplementary Figure 2

(A) BRCA1 occupancy at *U1* and *FOS* loci. qChIP analysis of *U1* locus and *FOS* transcription start site were performed in MCF10A cells, comparing the antibody used for ChIP-seq (I-20) to two different antibodies raised against distinct portions of BRCA1 (D-9 is a mouse monoclonal against the C-terminus and D-20 is rabbit polyclonal recognizing a N-terminal epitope). Additional proof of binding is shown in HeLa and MCF7 cells, using the D-9 antibody. The extent of the enrichment is greater in HeLa cells, consistent with BRCA1 being more abundant in this cell line (data not shown).

(B) Additional validation of BRCA1 peaks in MCF10A cells. qChIP were performed using the D-20 antibody and total rabbit IgG as a control. Columns represent the average percent of input, from three IPs.

(C) Specificity of BRCA1 binding. HeLa cells were transfected with a specific BRCA1 or a non-target shRNA vector (CTRL sh), cells were selected with puromycin and harvested 96h after transfection. BRCA1 ChIP signal dramatically decreases after shRNA-mediated depletion, both at U snRNAs and coding genes. Monoclonal D-9 antibody was used in the analysis.

(D) Validation of PALB2 peaks in HeLa cells. qChIP confirmed that PALB2 is greatly enriched at the *U1* snRNA locus, where the mature transcript is encoded, and its signal dramatically decreases further downstream. *NFKBIA* and the long non-coding RNA *MALAT1* are also shown.

(E) Specificity of PALB2 binding. HeLa cells were transfected with a specific PALB2 or a non-target shRNA vector (CTRL sh), cells were selected with puromycin and harvested 96h after transfection. PALB2 ChIP signal dramatically decreases after shRNA-mediated depletion, both at U snRNAs and coding genes. Anti-PALB2 antibody was the same used in ChIP-seq.

(F) Validation of PALB2 binding. ChIP was performed in 293T cells stably transfected with a FLAG-PALB2 or the empty vector (mock).