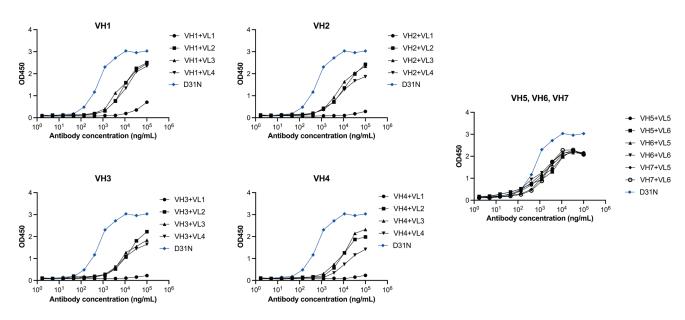
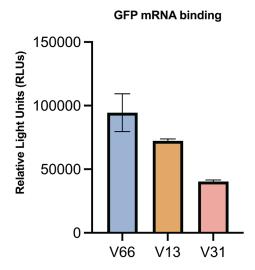
## Next-generation cell-penetrating antibodies for tumor targeting and RAD51 inhibition

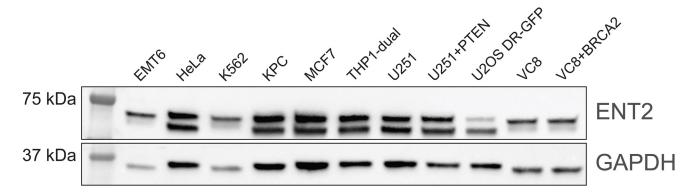
## **SUPPLEMENTARY MATERIALS**



Supplementary Figure 1: ELISA screening of 22 humanized 3E10 variants for poly(dT) EC<sub>50</sub>. Plots demonstrating the antibody/DNA binding curves from which EC<sub>50</sub>s for all variants were mathematically derived. In each experiment, D31N was used as a positive control.



Supplementary Figure 2: Determination of 3E10 variant GFP mRNA binding affinity. ELISA assay measuring V66, V13, and V31 affinity to 3'-biotinylated mRNA encoding cytosolic GFP. Data are mean  $\pm$  SEM, n = 3 replicates.



**Supplementary Figure 3: Determination of ENT2 expression in human cell lines.** ENT2 (~60 and ~55 kDa bands) relative abundance in all cell lines used for 3E10 antibody and/or nucleic acid payload uptake was assessed using western blot analysis.