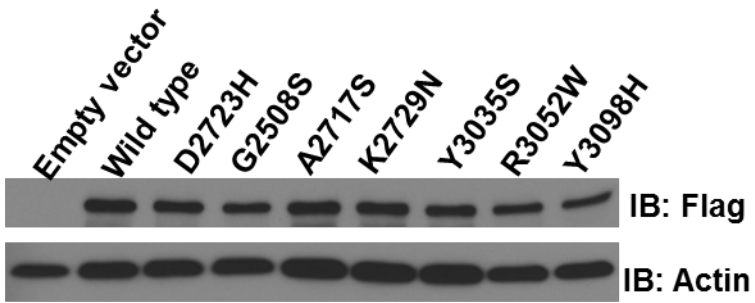


Supplementary Figure S2

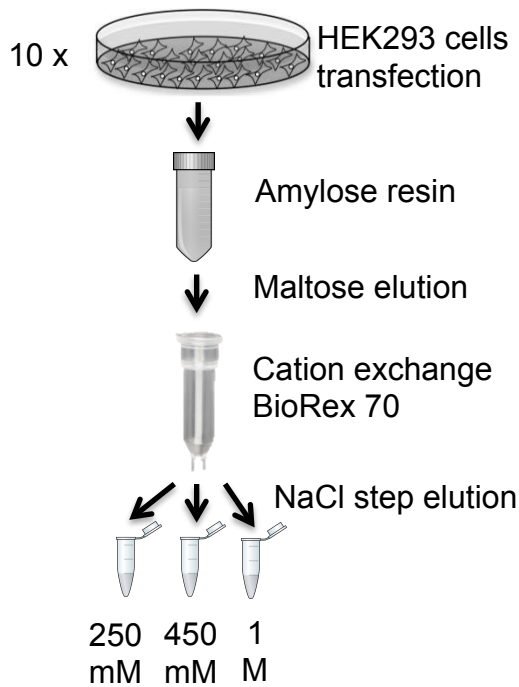


Western blot of ectopically expressed full-length wildtype and mutant hBRCA2 protein in VC8 DR-GFP cells that were subjected to HDR assay.

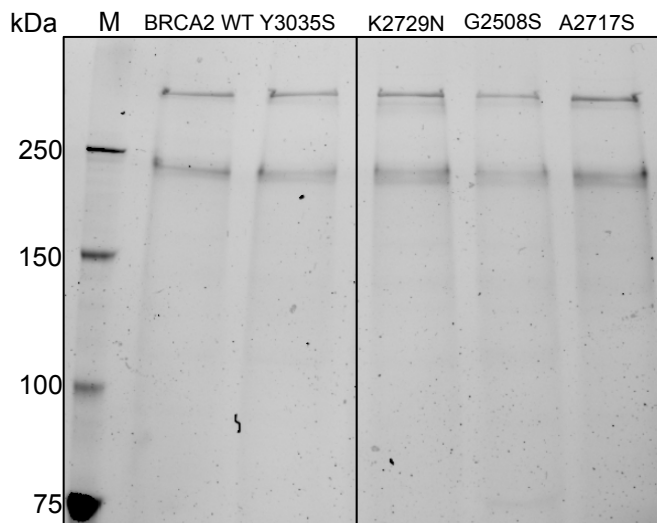
Supplementary Figure S3

A

Protein purification Protocol

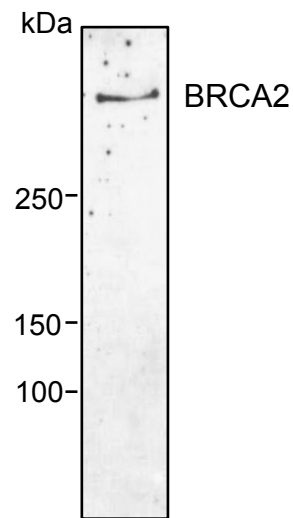


B



4-15% SDS PAGE Stain Free

C

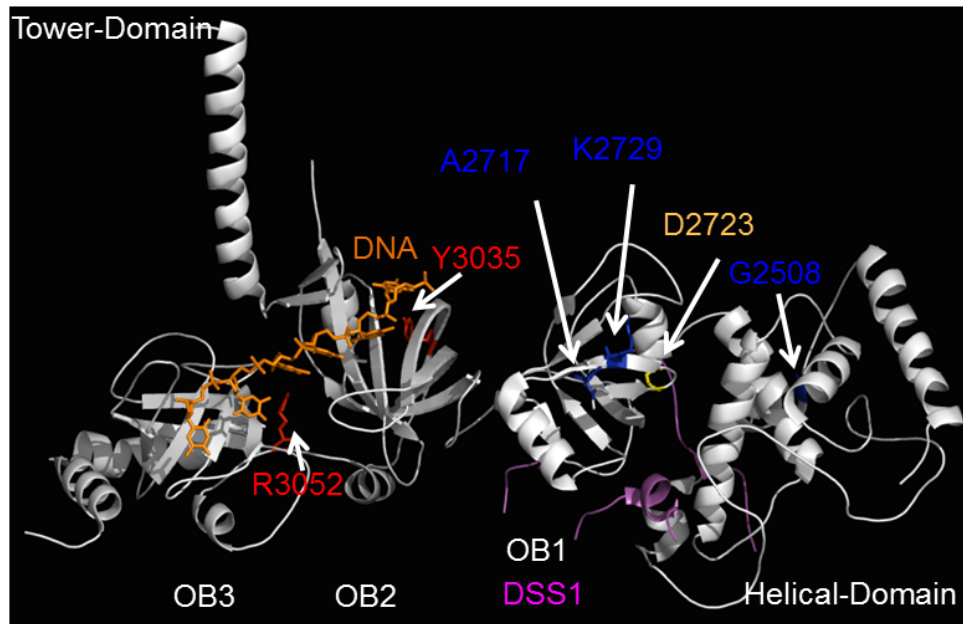


WB

Purification of wildtype and mutant BRCA2 from human cells.

(A) Scheme of the purification protocol of full-length BRCA2 proteins from human cells. (B) SDS-PAGE of purified wildtype and mutant BRCA2 proteins tagged with GFP-MBP at the N terminus. WT, wildtype. (C) Western blot (WB) of purified BRCA2 with an antibody specific for the C-terminal region of BRCA2 (CA1033, EMD).

Supplementary Figure S4



Position of BRCA2 DNA binding domain (DBD) variants on a ribbon diagram of the murine DBD crystal structure.

Ribbon diagram of the crystal structure of the mouse BRCA2 DBD-DSS1-ssDNA (PDB ID: 1MJE) generated using MacPyMOL (Molecular Graphics version 1.3.) highlighting the location of the variants analyzed by EMSA. The location of the known deleterious variant p.D2723H is shown in yellow. The human variants displaying a neutral phenotype (G2058, K2729, A2717) are shown in blue. The position of the variant reducing the DNA binding activity (Y3035) is shown in red. The DNA is shown in orange and DSS1 in purple.