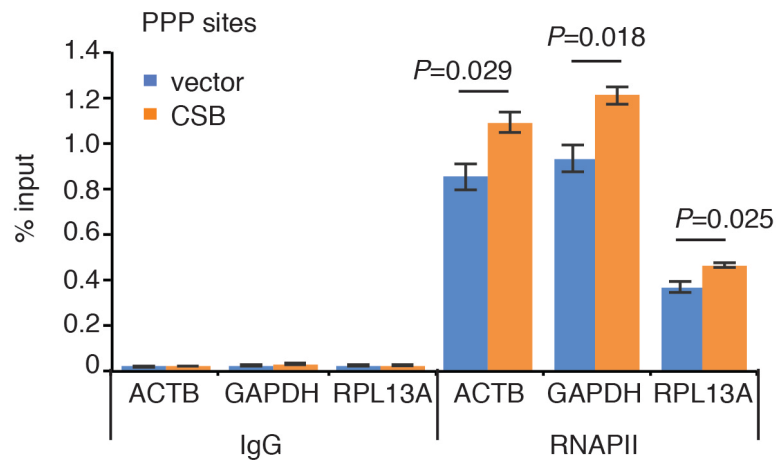
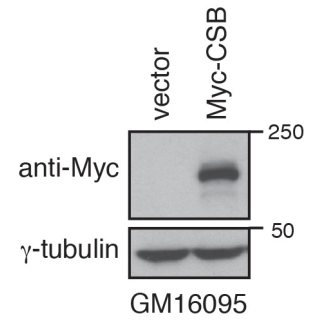
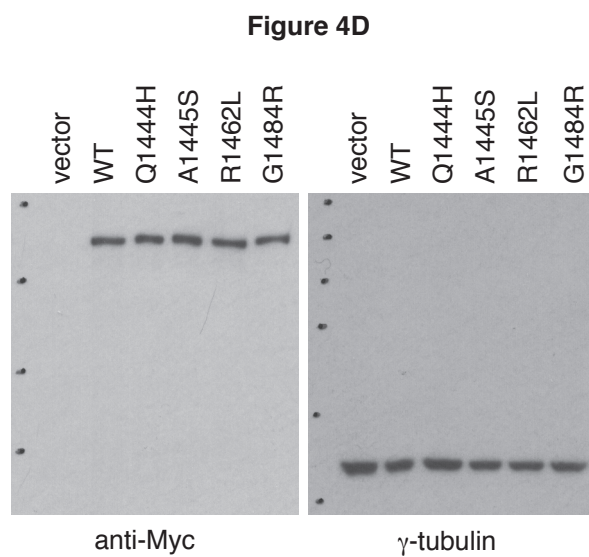
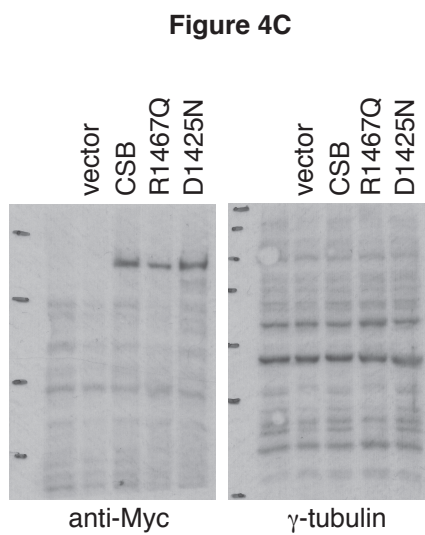
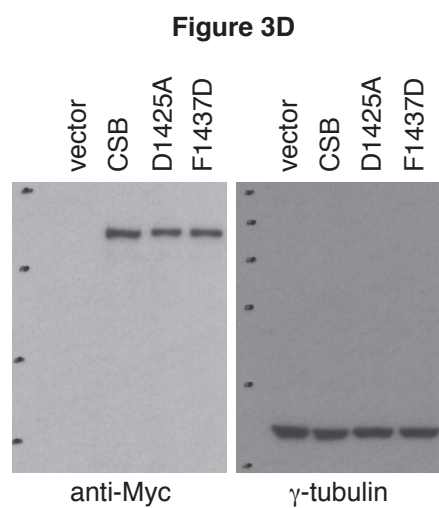
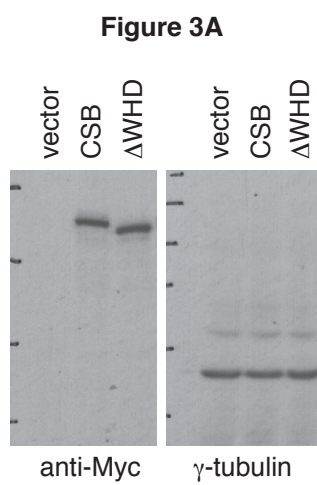
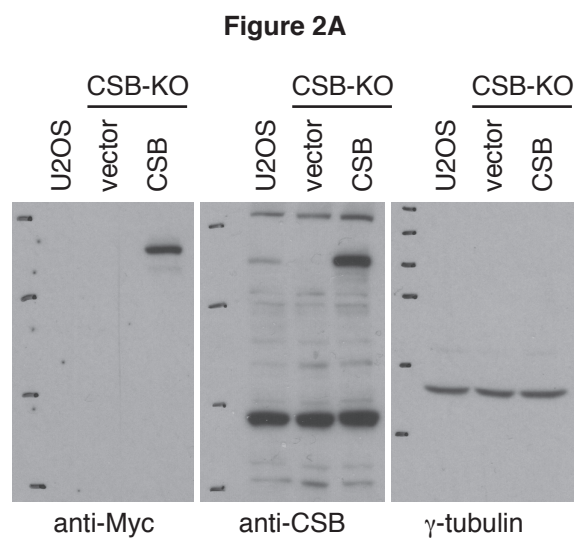
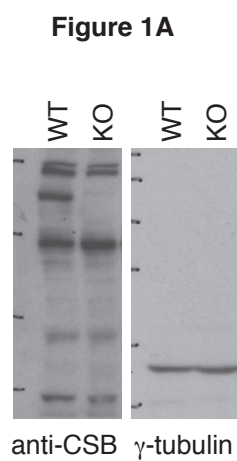


**A****B**

**Supplementary Figure S1.** Overexpression of Myc-CSB enhances RNAPII occupancy at PPP sites of *ACTB*, *GAPDH* and *RPL13A* genes in GM16095 cells. **(A)** RNAPII ChIP analyses of *ACTB*, *GAPDH* and *RPL13A* genes in GM16095 cells overexpressing the vector alone or Myc-CSB. Standard errors from three independent experiments are shown. *P* values were derived using a two-tailed Student's *t*-test. **(B)** Western analysis of GM16095 cells overexpressing the vector alone or Myc-CSB. Immunoblotting was performed with anti-Myc and anti- $\gamma$ -tubulin antibodies.

## Supplementary Figure S2

Uncropped western images --- corresponding Figures are indicated



## Supplementary Table S1

### Q-PCR Primers [1]

| Target     | Forward primer            | Reverse primer            |
|------------|---------------------------|---------------------------|
| ACTB_PPP   | GAGGGGAGAGGGGGTAAA        | AGCCATAAAAGGCAACTTTCG     |
| ACTB_In5   | GGAGCTGTCACATCCAGGGTC     | TGCTGATCCACATCTGCTGG      |
| ACTB_TES   | GGGACTATTTGGGGGTGTCT      | TCCCATAGGTGAAGGCAAAG      |
| GAPDH_PPP  | CTCCTGTTCGACAGTCAGC       | TTCAGGCCGTCCCTAGC         |
| GAPDH_In5  | ATAGGCGAGATCCCTCCAA       | TGAAGACGCCAGTGGAC         |
| GAPDH_TES  | CCCTGTGCTCAACCAGT         | CTCACCTTGACACAAGCC        |
| TEFM_PPP   | CTTGGAGATGAGCGGGTCTG      | GACAGACGGGAAATCACCCC      |
| TEFM_In2   | TGGCCAATGTGGTGAAAGCC      | GGGACTACAGGCCACGCC        |
| TEFM_TES   | ACCACATAGACTTTATGACAGAGAA | TCAATCCATGCTTGTGAAGCAA    |
| CALM3_PPP  | TGCGGGCAGTGAGTGTGGAGG     | ACGGGGATCAAGGTTCTCCGG     |
| CALM3_In1  | GTTCGGGGCCCCTATTGCGCAC    | AAAAGCTGGCTCATTCGAGGCACC  |
| CALM3_TES  | GCGATGCCCGTTCTCTTGATC     | CGCAGGGGAGTGTGTAAGAGAGA   |
| MRPL21_PPP | CGTTACGCACGCGGTTT         | GACCGTCAGGGAAGATGCTG      |
| MRPL21_In4 | CGGCATTGAGAATGGTTGCC      | GCAATGATTGAGGCTCTCCT      |
| MRPL21_TES | ACCAGGTTTCTGTGTTCTGGT     | GGCCTGGTGCTTACAGACAT      |
| RPL13A_PPP | ATGGCGGAGGTGCAGGTATG      | AGAGAGGGTGCGACCCCAT       |
| RPL13A_In6 | AGATTTTCAGGCCTGCTGAGG     | CCGCAGACCATCGTGAGATA      |
| RPL13A_TES | TGGCGTCTTTGCACTGTGTC      | CTACCCTCTTCAAGCTCCTCAC    |
| VCL_PPP    | GTGAGGCTGGTTACGCCGAG      | CGGGAACCGGCGAAGAGA        |
| VCL_In6    | CTCTGGTATCTGAATCTGCTTTCT  | AGCAGTATTTGCAATGTTTGGTTT  |
| VCL_TES    | AGAACTTTTAGGTCAGGTTTCTCCT | GTTTCCAGATCTTGAGGATTAGTTT |

[1] M.K.K. Shivji, X. Renaudin, C.H. Williams, A.R. Venkitaraman, BRCA2 Regulates Transcription Elongation by RNA Polymerase II to Prevent R-Loop Accumulation, Cell Rep, 22 (2018) 1031-1039.

## Supplementary Table S2

### Primers used to generate CSB mutations via site-directed mutagenesis

| <b>CSB mutations</b> |                                                  |
|----------------------|--------------------------------------------------|
| D1425A               | CTGCTGCCCACCACAGAGCATGCTGACCTTCTGGTGGAG          |
| D1425N               | CCCACCACAGAACACAATGACCTACTAGTGGAGATGAGAACTTC     |
| F1437D               | GGAGATGAGAACTTCATCGCTGATCAGGCCCACACTGATGGC       |
| Q1444H               | GGCCCACACTGATGGCCACGCTAGCACCAGGGAGATAC           |
| A1445S               | CACACTGATGGCCAGTCCAGTACTAGGGAGATACTGCAG          |
| R1462L               | GAATCCAAGTTATCTGCTAGCCTGTCTTGTGTCTTCCGAGAACTATTG |
| R1467Q               | CACAGTCTTGTGTCTTCCAAGAGCTCTTGAGAAATCTGTGCAC      |
| G1484R               | GAACTTCTGGTGGTGAAAGAATTTGGAAACTCAAGCCAG          |