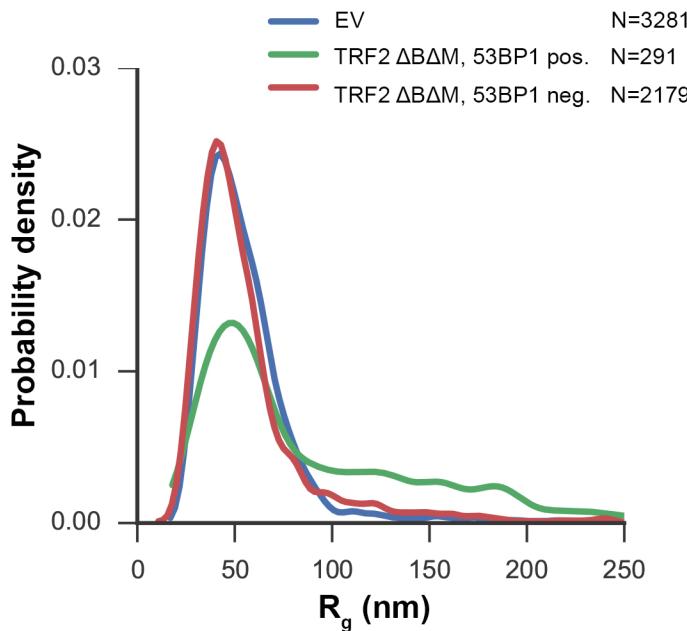
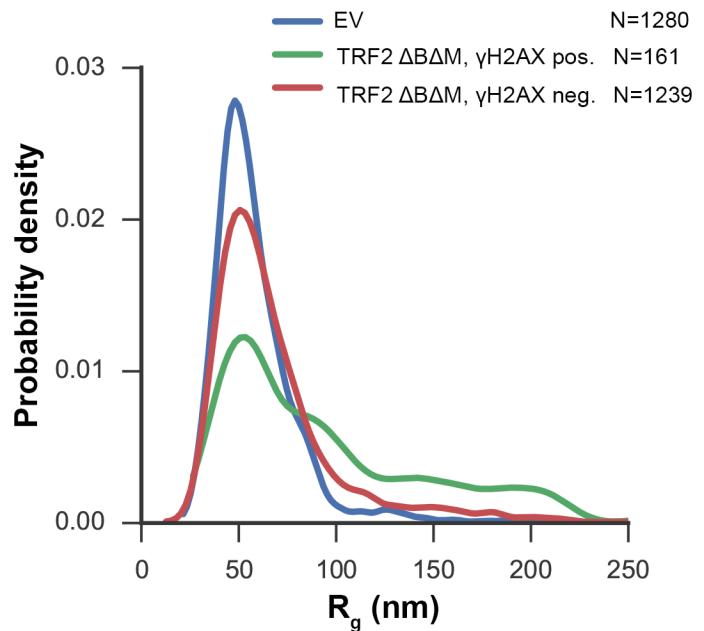


**A****B**

**Supplemental Figure S4:** Selection of DDR positive telomeres of TRF2 $\Delta B\Delta M$  transfected HeLa S cells with two markers (53BP1 and  $\gamma$ -H2AX) reveals increase in telomeres size in only a small subset of telomeres.

(A) Representative  $R_g$  distributions of telomeric (CCCTAA)<sub>3</sub>-FISH and 53BP1 labeled samples obtained by analysis of STORM data in HeLaS cells transfected with TRF2  $\Delta B\Delta M$  and empty vector control (EV). (B) Representative  $R_g$  distributions of telomeric (CCCTAA)<sub>3</sub>-FISH and  $\gamma$ H2AX labeled samples obtained by analysis of STORM data in HeLaS transfected with TRF2  $\Delta B\Delta M$  and empty vector control (EV).