

**Figure S7.** PROMPTs analysis of S2P RNAPII upon DNA damage. **A)** Volcano plots of differentially expressed PROMPTs from S2P upon IR. **B)** Volcano plots showing differential PI of protein-coding genes from S2P samples upon IR. **C)** Scatter plot showing log2FoldChange in PROMPT expression with associated log2FoldChange in PI of protein-coding genes from S2P sample on radiation treatment. **D)** Scatter plot showing log2FoldChange in PROMPT expression with associated log2FoldChange in PI of protein-coding genes from S5P sample on radiation treatment. **E)** Three-dimensional scatter plot comparing log2FoldChange in S2P GB expression with log2FoldChange in Y1P PI and log2FoldChange in Y1P PROMPT of protein-coding genes from S2P samples upon IR treatment. Only protein-coding genes that show significant (p < 0.05) change in Y1P PROMPT expression, Y1P PI and S2P GB expression upon IR were included in the analysis. **F)** Pie chart show significant (p < 0.05) change in Y1P PROMPT expression, Y1P PI and S2P GB expression upon IR.