



**Supplemental Fig S1: *Skiv2l2* knockdown with 177476 siRNA replicates decreased proliferation and histone accumulation in P19 cells.** A. qRT-PCR of *Skiv2l2* mRNA following transfection with 177476 siRNA. P19 cells were transfected with either control siRNA or 177476 siRNA complementary to the 3' end of *Skiv2l2*. RNA isolated from the samples was probed for *Skiv2l2* mRNA using qRT-PCR. *Skiv2l2* mRNA relative levels were calculated using the Cq values and normalized to *ActB* mRNA levels. 177476 siRNA transfection, decreased relative *Skiv2l2* mRNA levels by 99% (n=3, p-value=0.01), demonstrating significant *Skiv2l2* knockdown with 177476 siRNA. B. MTT assay following transfection with control or 177476 siRNA. Cells were treated with MTT 48 hours after control or *Skiv2l2* knockdown with 177476 siRNA in

P19 cells (n=5). Formazan absorbance was measured at 570 nm and background absorbance was measured at 630 nm. Transfection with 177476 siRNA resulted in a 50% decrease in absorbance, which denotes decreased cell proliferation (p-value=0.003). C. qRT-PCR of histone mRNAs following transfection with 177476 siRNA. RNA isolated from P19 cells transfected with control or 177476 siRNA was reverse-transcribed using primers specific to histone H2A and H4 mRNAs. H2A and H4 mRNA was then amplified using qPCR, and relative histone mRNA levels were calculated using  $\Delta Cq$  values and normalized to *ActB* mRNA levels. H2A mRNA accumulated 3.8 fold with 177476 siRNA transfection (n=3, p-value=0.01), and H4 mRNA accumulated 5.2 fold with 177476 siRNA transfection (n=3, p-value=0.03). This result shows that SKIV2L2 depletion using 177476 siRNA also results in the accumulation of replication dependent histone mRNAs.