



**Supplementary Figure S3. Effects of APOBEC3A expression in proliferating cells.** **A.** Inducible A3A<sup>WT</sup> or A3A<sup>E72A</sup>-expressing U2OS cells were induced or uninduced and cultured for 5 days. Relative levels of viable cells were determined. Error bar: S.D. (n=3). Significance was determined by t-test. ns; not significant. **B.** Levels of  $\gamma$ H2AX in A3A<sup>WT</sup> or A3A<sup>E72A</sup>-expressing cells were analyzed by Western blot. **C.** A3A<sup>WT</sup> was inducibly expressed in SKOV3 cells, and cell survival was analyzed after 5 days of continuous ATRi (VE-821) treatment. Error bar: S.D. (n=3). **D.** U2OS-derived cells were left uninduced or induced to express A3A<sup>WT</sup>. Cell survival was analyzed after 5 days of continuous AZ20 treatment. Error bar: S.D. (n=3). **E.** TOV21G cell were treated with DMSO or ATRi (3  $\mu$ M) for 8h. A3A-A3B activity was measured using increasing amounts of cell extracts. Error bar: S.D. (n=3).