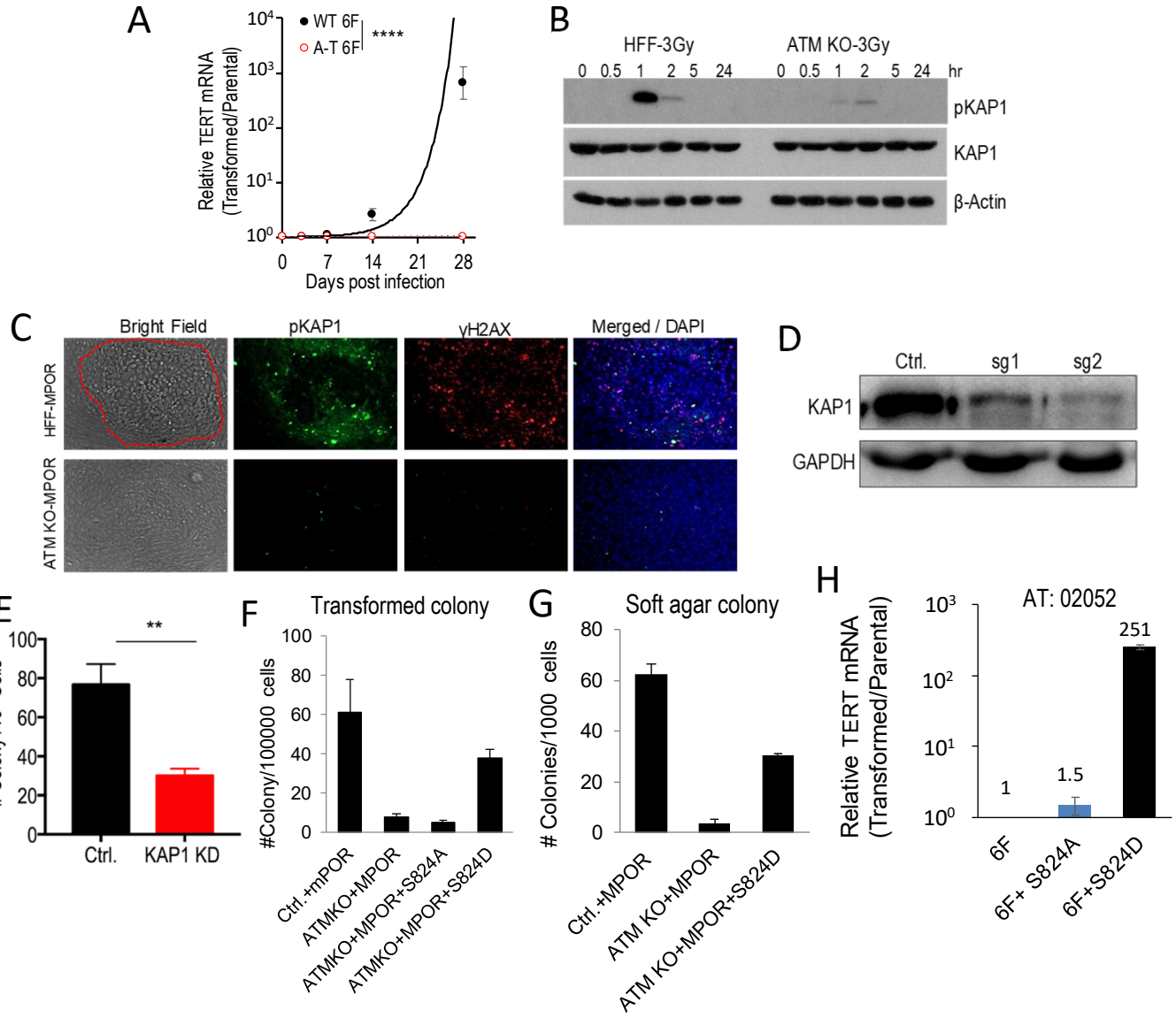

Fig. S6. Additional data on the key roles of KAP1 phosphorylation in MPOR induced transformation of fibroblasts.

A).RT-QPCR analysis of endogenous hTERT mRNA expression at day 30 post MPORCC transduction in ATM deficient GM02052 cells. n=3. Error bars represent SEM, ****p<0.001, Two-way ANOVA.

B) Western blot analysis of phosphorylated KAP1 in parental and ATM deficient HFF cells at different times after 3 Gy x-ray exposure.

C). Bright field and immunofluorescence staining of phosphorylated KAP1 and γH2AX in MPOR-transduced parental and ATM-deficient HFF cells at day 21 post gene transduction. Red circle highlights the boarder of a transformed colony.

D). Western blot shows KAP1 knockdown in HFF cells transduced with vector control (Ctrl.) or sgRNA1 &2 targeting KAP1 gene on day7 after infection. GAPDH as loading control. KAP1 sgRNA2 was used for experiments in E.

E). Morphologically transformed colony outgrowth in MPOR-transduced control and KAP1 knockdown (KAP1 KD) HFF cells on day 20 post transduction. n=6, error bars represent SEM. ** p<0.01, unpaired t test.

F). KAP1 (S824D) instead of KAP1 (S824A) rescued colony outgrowth in MPOR transduced ATMKO cells. n=3.

G).KAP1 (S824D) instead of KAP1 (S824A) rescued soft agar formation in MPOR transduced ATMKO cells. n=3. error bars represent SEM.

H). Q-RT-PCR analysis of endogenous hTERT mRNA expression at day 30 post MPORCC transduction in ATM-deficient GM02052 cells in the absence or presence mutant KAP1 co-expression. n=3