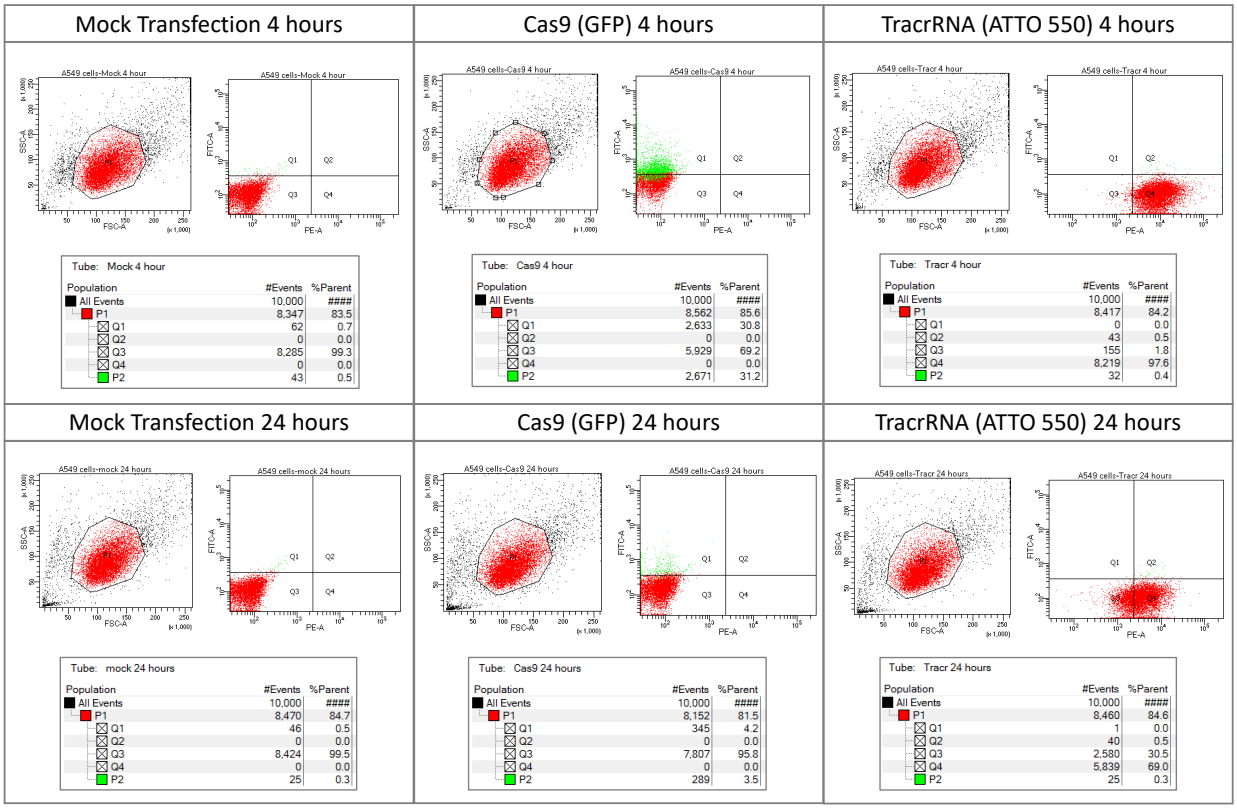

Figure S1. Fluorescence compensation of mock transfected, GFP- and ATTO 550-fluorescing cells. A549 cells were mock transfected or transfected with CRISPR/Cas9 RNP containing a single fluorescent component and analyzed by FACS. Representative FACS plots depict the population of cells transfected with an RNP containing either fluorescent component at the indicated time points (data for 1, 8, 12, 48 hours not shown). Each single fluorescent component was used to set gates for dual and background fluorescence as seen in Figure 2.

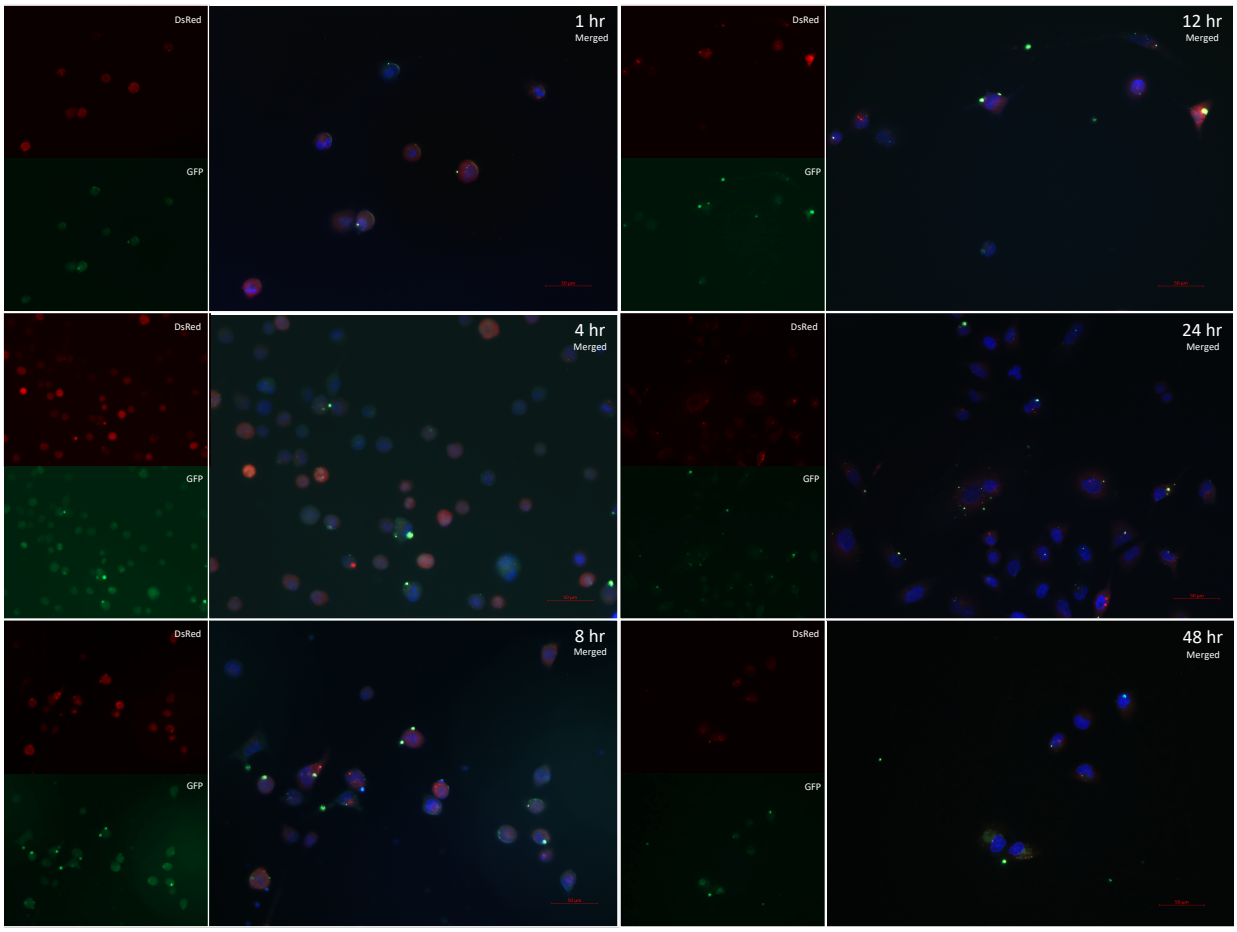

Figure S2. Representative images used for time course analysis. The series of images represents the average field seen for each time point. Brightness has been enhanced for better visualization of fluorescence.

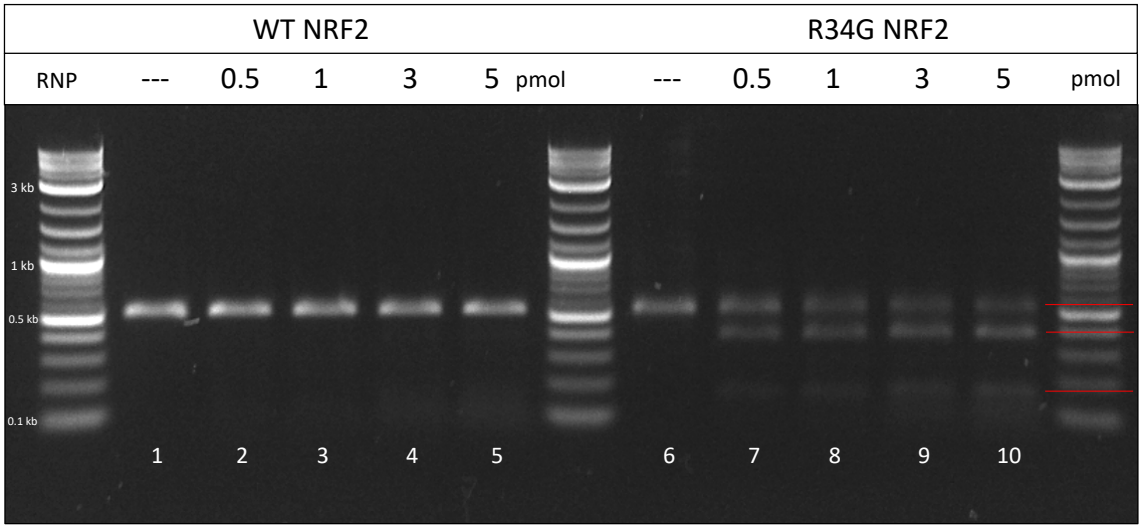

Figure S3. *In vitro* cleavage reaction of wildtype and R34G-mutated *NRF2* amplicons with varying concentrations of the R34G RNP. Genomic DNA from A549 parental and R34G-6 cells was amplified and purified *NRF2* amplicons were incubated with increasing concentrations of the R34G RNP, starting with 0.5 pmol through 5 pmol. Reactions were visualized by gel electrophoresis. Lanes 1 and 6 are the *NRF2* amplicons incubated with buffer only (negative control). Lanes 2-5 are wildtype *NRF2* amplicons incubated with R34G RNP. Lanes 7-10 are R34G-mutated *NRF2* amplicons incubated with R34G RNP. The red bars (right hand side of ladder) indicate the size of uncut amplicons (530 bp) and cleavage products (145 & 385 bp).