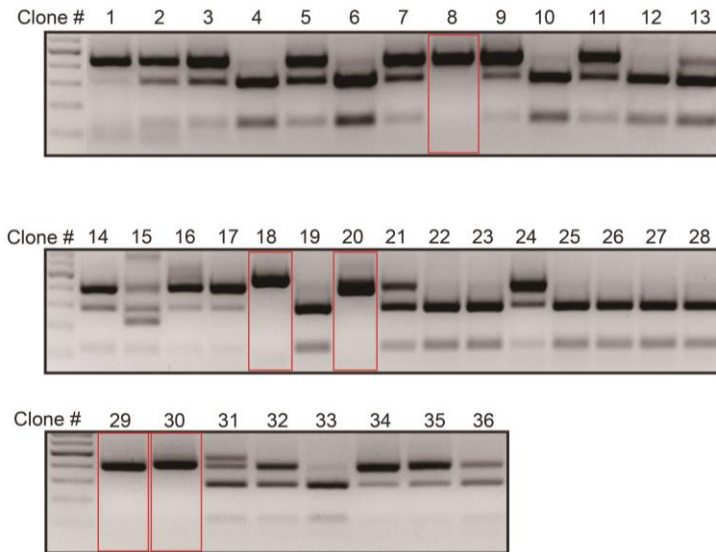


**A** Single clone genotyping of *Apc* TALEN treated H2.35 cells



**B** *Apc* TALEN induced mutations

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aactttgctAGCTATGTCCAGCTCCCaagacagctgtatatacCATGCGGCAGTCTGGatgttctcct (wt)
aactttgctAGCTATGTC-----TGGatgttctcct (Δ36)
aactttgctAGCTATGTCCAGCTCCCaagac-----GGatgttctcct (Δ24)
aactttgctAGCTATGTCCAGCTCCCaagaca---tataacCATGCGGCAGTCTGGatgttctcct (Δ4)
aactttgctAGCTATGTCCAGCTCCCaagacac-----TGCGGCAGTCTGGatgttctcct (Δ11)
aactttgctAGCTATGTCCAGCTCCCaagaca-----tatacCATGCGGCAGTCTGGatgttctcct (Δ6)
aactttgctAGCTATGTCCAGCTCCCaagacag---tataacCATGCGGCAGTCTGGatgttctcct (Δ3)
aactttgctAGCTATGTCCAGCTCCCa-----TGCGGCAGTCTGGatgttctcct (Δ17)
aactttgctAGCTATGTCCAGCTCCCaaga-----GCAGTCTGGatgttctcct (Δ18)
aactttgctAGCTATGTCCAGCTCCCaagacagaa--atatacCATGCGGCAGTCTGGatgttctcct (Δ2)
aactttgctAGCTATGTCCAGCTCCCaagacagct|gtatatacCATGCGGCAGTCTGGatgttctcct (ins50)
aactttgctAGCTATGTCCAGCTCCCaagacagct|gtatatacCATGCGGCAGTCTGGatgttctcct (ins6)
aactttgctAGCTATGTCCAGCTCCCaagacagctgt|atatacCATGCGGCAGTCTGGatgttctcct (ins11)

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**Supplementary Figure 2. *Apc* TALEN induced mutations in H2.35 cells.**

(A) Genotyping results of the H2.35 cell single clones. The H2.35 cells were transfected with both arms of *Apc* TALEN and then plated as single cell clones. Clones were subjected to restriction enzyme digestion genotyping. Shown is the genotyping result for all the 36 clones. 5 clones are *Apc* homozygous mutant clones (highlighted by red rectangles) that only have uncut bands, and 18 are heterozygous clones that have both uncut and cut bands.

(B) H2.35 cells were transfected with GoldyTALEN vector, left, right, or both *Apc* TALENs. Genomic DNA was extracted after 72 hours of transfection, PCR amplified for the TALEN target region. The amplicons were then subjected to PvuII restriction enzyme digestion, and the uncut bands were purified and subjected to TA cloning. Then clones were randomly picked and sequenced. TALEN binding sites are highlighted in yellow.