

A

sgRNA-PTENP1 CGGCAGCAGCTGCTGGATGG

B

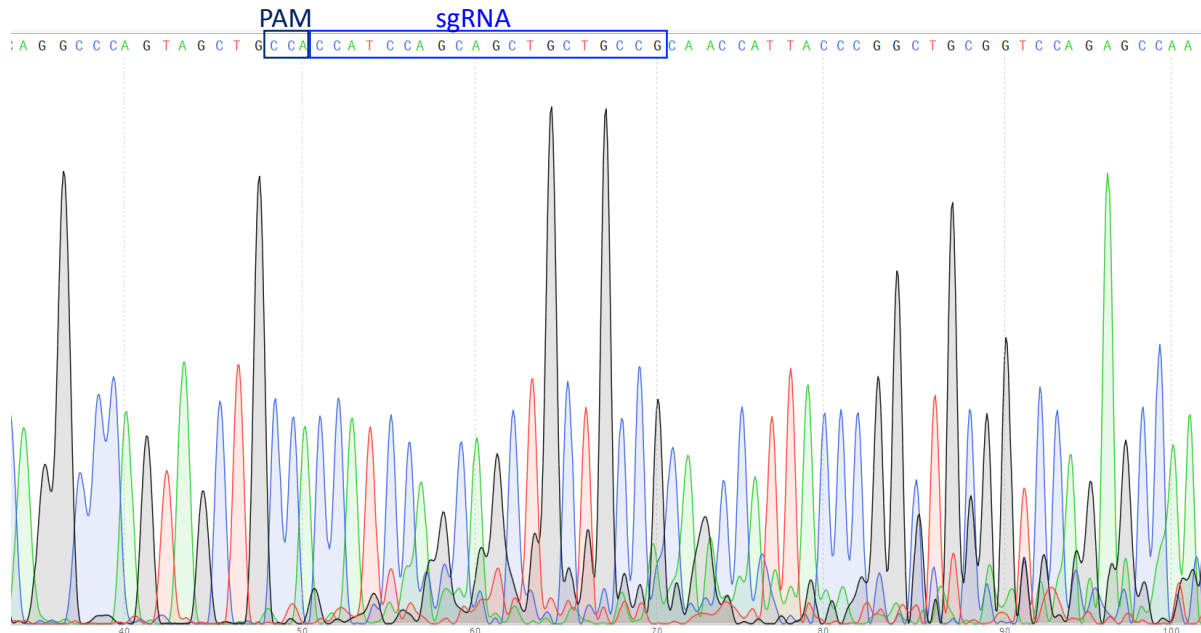
PTENP1 gene

5'-CCACCATCCAGCAGCTGCTGCCG-3'
3'-GGTGGTAGGTCGTCGACGACGGC-5'

PTEN gene

5'-CAACCATCCAGCAGCCGCCGAG-3'
3'-GTTGGTAGGTCGTCGCGCGTC-5'

C



Supplementary Figure 1.

a sgRNA-PTENP1 sequence. **b** (left) *PTENP1* genomic sequence recognized by sgRNA-PTENP1 (bold), and PAM sequence (5'-TGG-3', underlined). (right) Orthologous *PTEN* genomic sequence. sgRNA-PTENP1 cannot mediate the cleavage of *PTEN* because of 4 mismatches (red), one of which falls in the PAM sequence. **c** Electropherogram of *PTENP1* genomic sequence, where the consequences of the cut by Cas9/sgRNA-PTENP1 are shown. The electropherogram was obtained by PCR analysis of the genomic DNA extracted from DU145-Cas9/sgRNA-PTENP1 double infected cells, 3 days after Cas9 induction using 2ug/ml doxycycline. The primers used for amplification were: Fw-attcgtcttctccccattcc; Rv-tctgcaggaaatcccatagc.