Cell cycle stage and DNA repair pathway influence CRISPR/Cas9 gene editing efficiency in porcine embryos

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Supplementary material

Table S1. Primers used for sgRNA synthesis.

Name	Sequence of the forward primers
XBP1_sgRNA1	**(T7)** GCTTGGTGTAGACCATTCGT **(px330)**
XBP1_sgRNA2	**(T7)** CCCCAGCTGATTAGTGTCTA **(px330)**
FABP3_sgRNA1	**(T7)** GCTGGGATTGAGGGACAGGA **(px330)**
FABP3_sgRNA2	**(T7)** GGAAACTCATCCTGGTAAGA **(px330)**
FABP6_sgRNA1	**(T7)** ACTCTCGATCTCATACTTGC **(px330)**
FABP6_sgRNA2	**(T7)** CGATGAGTTCATGAAGCGCT **(px330)**

(T7) corresponds to TAATACGACTCACTATAGG. **(px330)** corresponds to GTTTTAGAGCTAGAAATAGC.The sequence of the reverse primer used for all forward primes is: AAAAGCACCGACTCGGTGCC.

Table S2. Primers used for genomic DNA amplification.

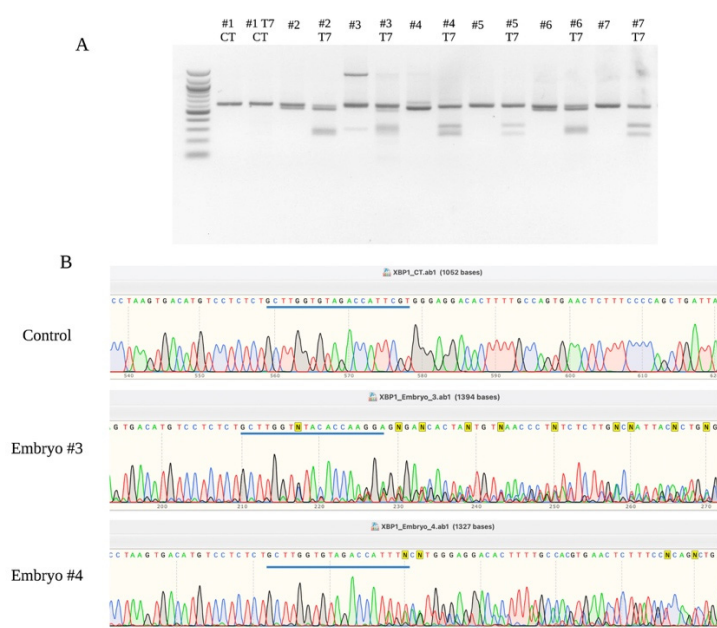| Gene	Sense	Antisense	Amplicon
XBP1	GAGAGCCAAGCTAATGTGGT	TGTCCAGTGACCCTTACCCA	602 bp
FABP3	AGCTGGGCTGTCTGACTCTA	TCCACCCTCCACTATCCCAG	472 bp
FABP6	AATGGGATTCCAGCCAGCAA	TCGCAGCAGTAACATTGGGT	521 bp

Figure S1. Genome editing analysis. (**A**) Agarose gel resolution before and after T7 Endonuclease I assay. Different pattern of bands is visible in the gel according to the induced mutations. (**B**) Direct Sanger Sequencing from three embryos: one control and two embryos where errors are visible in the chromatogram in the sgRNA position (blue line). This figure was assembled using BioRender.