

## Description of Additional Supplementary Files

**Title:** Supplementary Data 1

**Description:** Results of Blunt cloning and sequencing analysis of targeted *EGFP* and *Crygc* in the blastocysts.

**Title:** Supplementary Data 2

**Description:** Summary of SNVs, indels, and non-synonymous mutations identified by WGS.

**Title:** Supplementary Data 3

**Description:** The output of LC-MS quantification of 5mC and 5hmC nucleosides in *Tet* and *Dnmt* mutant embryos.

**Title:** Supplementary Data 4

**Description:** Blunt cloning and sequencing results of targeted *Tet* and *Dnmt* genes in the blastocysts derived after hA3A-eBE3-Y130F-mediated editing.

**Title:** Supplementary Data 5

**Description:** Deep sequencing analysis of *Tet*-TKO, *Dnmt1*-KO, *Dnmt3a/3b*-DKO, and *Dnmt*-null embryos.

**Title:** Supplementary Data 6

**Description:** Efficiencies of embryonic development and genome editing after IMGZ-treatment.

**Title:** Supplementary Data 7

**Description:** Deep sequencing analysis of *Tet* and *Dnmt* mutant embryos.

**Title:** Supplementary Data 8

**Description:** The quality control of WGBS data in this study.

**Title:** Supplementary Data 9

**Description:** Lists of primers and sgRNA sequences in this study.