

**Title:** Supplementary Data 1.

**Description:** Transcript level decreased and increased genes in *h3.3ko*.

**Title:** Supplementary Data 2.

**Description:** Accessibility significantly decreased and increased regions in *h3.3ko* mature seeds.

**Title:** Supplementary Data 3.

**Description:** Genes associated with accessibility significantly decreased and increased regions in *h3.3ko* mature seeds.

**Title:** Supplementary Data 4.

**Description:** Enriched TF binding motifs in H3.3-established open chromatin regions.