

**Table S3: Custom QPCR array for equine chromatin modification genes**

**DNA/Histone Demethylase:**

*KDM1A*

**DNA Methylases:**

*DNMT1, DNMT3B*

**Histone Acetylases**

*ATF2, CIITA, CSRP2BP, ESCO2, HAT1, KAT2A, KAT2B, KAT7*

**Histone Demethylases:**

*HDAC1, HDAC11, HDAC2, HDAC3, HDAC6*

**Histone Methylases:**

*CARM1, PRMT1, PRMT3, PRMT5, PRMT6, PRMT7, SUV39H1, AURKA, AURKB*

**Histone Phosphorylases:**

*NEK6, PAK1, DZIP3, RNF20*

**Histone Ubiquitinases:**

*USP16, USP22, SETD1A, SETD8, WHSC1*