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# Differentially Expression Genes of Normal and Cloned Bovine Placenta

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Offspring have been produced from somatic cells in a number of species. This biotechnology introduced a new phenomenon in reprogramming and differentiation of somatic cell, namely totipotency. However, birth of oversized calves and perinatal abnormalities such as increased gestation length, lack of spontaneous parturition, higher incidence of dystocia, and reduced perinatal viability of offspring are frequently observed in pregnancies of cloned bovine fetuses. Disturbance of feto-placenta has been proposed as likely causes for abnomal growth. However. Little is known the mechanism responsible for the perinatal problems. Therefore, we focused on gestation length in somatic cell nuclear recipient cows. To solve this issues, placental tissues of control and cloned bovine were obtained by a cesarean section (C-section) before 5 days of paturition.

Total RNA from control and cloned bovine placenta was extractd by TRIzol reagent. GeneFishing DEG kits (Seegene) were used to identify differentially expression genes. Total RNA (3 ug) were synthesized by M-MLV reverse transcriptase (200 u/ul) with 10 uM dT-annealing control primer (ACP1) at 42C for 90 min. Then, first-strand cDNA (50 ng) was amplified using the 5 uM arbitary ACP (1-20) and 10 uM dT-ACP2 primers. Some specific expression genes were amplified. Now, we are cloning and sequencing. These finding strongly can be support to solve the problems for parturition delay in nuclear transfer cows, suggest that placenta specific proteins are key indicators for the aberration of gestation and placental function in cows.

Key words) *Differentially Expression genes, cloned bovine placenta*