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Analysis of Placental Proteins in Somatic Cell Clone Recipient Cows

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The purpose of this experiment was to investigate the protein profiles in the placenta of Korean native cows(KNC) transferred cloned embryos and KNC artificially inseminated placental tissues were collected from the cows after cesarean section around parturition, and placental proteins were analyzed. Using two dimensional polyacrylamide gel electrophoresis and matrix-assisted laser desorption/ionization time-of-flight mass spectrometry. 7 proteins including similar to RIKEN cDNA gene, Aldose reductase, galectin-1, coactosin-like 1, transketolase, heterogeneous nuclear ribonucleoprotein H1 and seryl-tRNA synthetase were identified and compared between two types of cows. The expression of vimentin and cytokeratin in recipient cow placentomes was further confirmed by western blot analysis. The results of this experiment suggest a role for placental protein as pregnancy factors involved in the regulation of placental growth and differentiation.

Key Words : *Placental protein, Cloned embryos, 2DE, Western blot*