

Expression of Oct-4 in the Pregnancy of Korean Native Cattle

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Oct-4 is a maternally expressed octamer-binding protein encoded by the murine Oct-4 gene. It is present in unfertilized oocytes, but also in the inner cell mass and in primordial germ cells. In addition, Oct-4 is the first transcription factor described that is specific for the blastocysts stage bovine embryos. The spatial and temporal expression patterns were further determined using Immunohistochemistry. With this technique Oct-4 protein expression is detected in the oocyte, in the blastocyst. After pregnancy Oct-4 expression is restricted ovary and placental tissue. Therefore Oct-4 is a transcription factor that is specifically expressed in cells participating in the pregnancy of Korean native cattle. These result suggest that Oct-4 localization and expression may contribute to the defects in the developmental normal seen in Korean native cattle.

Key words) *Oct-4 expression, Ovary, Placenta , Korean native cattle*