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Effect of EGF on *In Vitro* Oocyte Maturation and Embryo Development and Expression of EGF mRNA in Bovine Oocytes and Embryo
Ⅱ. Detection of Epidermal Growth Factor mRNA in bovine Ova during *In Vitro* Maturation and after Fertilization *In Vitro*

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This study was carried out to examine, by the reverse transcription chain reaction(RT-PCR)and Immunostain assays, epidermal growth factor mRNA expression in bovine ova during oocyte maturation in vitro(0-21h)and after fertilization in vitro(6-144hr: zygotes to blastocysts). In this study, the transcripts of EGF was detected in oocytes using primers for EGF. Transcripts for EGF mRNA was not detected in oocytes through in vitro maturation. But EGF mRNA were present after fertilization up to the 2-cell stage and the blastocyst stage. The highest mRNA levels in 4-cell stage embryos were decreased at 8cell stage and then reincreased upto morulae and blastocysts.

The results of this study showed EGF mRNA are present in embryo after fertilization and this factors are involved in the regulation of bovine embryo development.

Key Words)EGF, Bovine Ova, RT-PCR, Immunostain