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The Synchronization of Mouse and Porcine Fetal Fibroblast Cells with Topoosomerase Inhibitor

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This study was carried out to investigate on the synchronization of mouse and porcine fetal fibroblast cells with topoosomerase inhibitor.

There was significant difference in the percentage of mouse fibroblast cells in G2/M whether cells were pre-synchronized in medium supplemented with 0.5% serum for 48 h and 1% serum for 5~7 days. Pre-synchronization in early S-phase before incubation in medium containing 0.1 μg/m Hoechst 33342 an increase from 0 and 12 versus 20 h culture an increased percentage of cell in G2/M at the end of the synchronization period (16.9% and 21.5% versus 56.6%, $P<0.01$). When 0, 50, 100 or 200 μM of H_2O_2 were applied to mouse embryonic fibroblast cells, there was little difference in the patterns of IκB degradation between them.

There was no significant difference in the percentage of porcine fibroblast cells in G2/M whether cells were pre-synchronized in medium supplemented with 0.2% serum for 48 h or 0.5% and 1% serum for 7 days. Pre-synchronization in early S-phase before incubation in medium containing 0.1 μg/m Hoechst 33342 an increase from 0 and 8 versus 15 h culture an increased percentage of porcine fibroblast cells in G2/M at the end of the synchronization period (12.4% and 17.5% versus 47.6%, $P<0.01$). Neither an increase in the concentration of H 33342 (0.2~1.6 μg/ml) nor a longer exposure time (12 h versus 18 h versus 24 h) increased the proportion of porcine G2/M fibroblasts.

Key words) ***Mouse, porcine fibroblast cells, synchronization, inhibitor***