

Hormonal Regulation of SNAREs during Follicular Development in the Mouse¹

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Cell interactions are actively occurring during oocyte development between the oocyte and follicle cells. Among various molecules involved in bulk transports, SNAREs are found in developing follicles. The present study was carried out to elucidate a regulatory events occurring SNARE up regulations in developing follicles. We explore the function of SNAREs in mouse follicle during oocyte maturation by immunocytochemistry, immunohistochemistry, RT-PCR, western blot, *in vitro* culture of granulosa cells and used siRNA for knock-down of FSH receptor. There are SNAP-25 and Syt in the granulosa cells which were surrounded on the oocytes. And by the FSH priming for 12 hrs of intervals, the relative expression of SNAP-25 and Syt proteins and mRNAs were gradually increased till ovulating oocytes. When FSH receptors were knock-down by siRNA, an expression of SNAP-25 and Syt was not affected to FSH. Therefore, SNAP-25 and Syt could be regulated by FSH and eventually, mediated with oocytes maturation.

Key words: SNAP-25, Syt, Granulosa cells, FSH, Mouse ovary.

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