

## B-4 Identification and Characterization of Centrosomal Protein Recognized by Newly Developed Monoclonal Antibodies in Mouse Oocyte & Preimplantation Embryos

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**Introduction and Aims:** In most animal cells, centrosomes are instrumental for organization of the spindle poles, and involved in many other cytoplasmic activities including cell cycle-related kinetic activity. The oocytes from mouse do not contain centrosomes, yet they form bipolar spindles during meiosis. And contribution of sperm about embryo centrosomes is not clear at present. In this study we developed and characterized monoclonal antibodies recognizing centrosomes in both mouse oocytes and somitic cells.

**Materials and Methods:** Indirect immunocytochemistry was used to examine the antigen distributions and attractions during cell cycle in both meiotic and mitotic divisions.

**Results:** Discrete spots were recognized in the oocytes undergoing maturation as evidenced by two monocloned antibodies, 1D and 2D.

In preimplantation embryos, the antigens were found abundantly in blastomeres throughout the cytoplasm. Interestingly the polarized distribution of the antigens were found in the opposite side of the trophectodermal cells to the inner cell mass during blastocyst stage. The staining intensity suggests that the protein(s) recognized by the monoclonal antibodies are present at very low level in the oocyte, whereas are synthesized rapidly during embryonic development.

**Conclusion:** The antibody should provide a useful tool for definitely ooplasmic factors involved in centrosomal organization in the mouse.

## B-5 Expression of GnRH-II in Human Endometrium During the Normal Menstrual Cycle and First Trimester

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**Objective:** We aimed to demonstrate the expression of GnRH-II mRNA and peptide in cycling human endometrium and first trimester decidua.

**Methods:** Nested RT-PCR was performed to identify GnRH-II mRNA in the endometrium (n=6) and the sequencing analysis was carried out. For immunohistochemistry, 23 endometrial samples (proliferative: n=4, early secretory: n=8, mid-secretory: n=6, late secretory: n=5) and decidual samples obtained during 5~10 wk of gestation (n=7) were examined. The expression of GnRH-II peptide in each phase of the