

**Expression of Recombinant Human Follicle-stimulating Hormone
in the Chinese Hamster Ovary Cell**

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As an preliminary experiment for making transgenic animals producing human follicle stimulating hormone (hFSH), we tried to express recombinant hFSH gene *in vitro*.

hFSH is a heterodimeric glycoprotein hormone produced in the anterior pituitary gland. The hormone is essential in the regulation of reproductive processes, such as follicular development and ovulation. Genes encoding the common gonadotrophin alpha subunit and FSH-specific beta subunit were inserted into retroviral vectors under the control of the rat beta actin promoter. Gene transfer to the Chinese hamster ovary (CHO) cells was done by infection of the retroviruses harvested from PT67 packaging cells transfected with recombinant retrovirus vector DNA. After selection with G418, PCR and RT-PCR analyses of the G418-resistant CHO cells showed successful transfer and expression of both α and β fragments of the FSH gene.

Key words) *Retroviral vector, recombinant human FSH, Chinese hamster ovary cell*