

Tumor necrosis factor- α activates nuclear factor- κ B but does not regulate progesterone production in cultured human granulosa luteal cells

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Background. The role of tumor necrosis factor- α (TNF- α) in granulosa luteal cell function and steroidogenesis is still controversial. Our aim was to examine the steroidogenic response, together with the simultaneous expression and activation of nuclear factor- κ B (NF- κ B), in cultured human granulosa luteal cells (GLCs) following administration of TNF- α . **Materials and methods.** This prospective controlled study was conducted in the Human Reproduction Division at the Institute of Maternal and Child Research, Faculty of Medicine, University of Chile and the San Borja Arriarán Hospital, National Health Service, Santiago, Chile. GLCs were obtained from aspirates of follicles from women undergoing in vitro fertilization (IVF). Thirty-two women undergoing IVF for tubal-factor and/or male-factor infertility participated in this study. Protein levels of NF- κ B, the NF- κ B inhibitor I κ B α and steroidogenic acute regulatory protein (StAR) were determined by Western blot and localization of NF- κ B was s