

The Role of Estradiol-17 β and Type IV Collagen on the Regulation and Expression Level Of C-ErbB2 RNA and Protein in SKOV-3 Ovarian Cancer Cell Line

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Abstract : One of several aggressive cancer is cancer that overexpress c-erbB2 receptor along with the expression of estrogen receptor. Components of extracellular matrix play an important role to increase cancer cells proliferation, migration and invasion. Both components can affect cancer development by regulating the signal transduction pathways in cancer cells. In recent research, SKOV-3 ovarian cancer cell line, that overexpress c-erbB2 receptor was cultured on type IV collagen and treated with estradiol-17 β , to reveal the role of both components on RNA and protein level of c-erbB2 receptor. In this research we found a modulation phenomena of increasing and decreasing of c-erbB2 RNA level and a stabilisation phenomena of c-erbB2 protein expression due to estradiol-17 β and type IV collagen. It seemed that estradiol-17 β has an important role to increase c-erbB2 transcription and the stability of c-erbB2 protein expression. Type IV collagen has an opposite role. It blocked c-erbB2 transcription when it bound to integrin receptor in SKOV-3 cells.

Keywords : c-erbB2, estradiol-17 β , SKOV-3, type IV collagen

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