

# Nerve growth factor induces the expression of chaperone protein calreticulin in human epithelial ovarian cells

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Epithelial ovarian cancer is highly angiogenic and high expression of Nerve Growth Factor (NGF), a proangiogenic protein. Calreticulin is a multifunctional protein with anti-angiogenic properties and its translocation to the tumor cell membrane promotes recognition and engulfment by dendritic cells. The aim of this work was to evaluate calreticulin expression in human normal ovaries, benign and borderline tumors, and epithelial ovarian cancer samples and to evaluate whether NGF regulates calreticulin expression in human ovarian surface epithelium and in epithelial ovarian cancer cell lines. Calreticulin mRNA and protein levels were analyzed using RT-PCR, Western blot and immunohistochemistry in 67 human ovarian samples obtained from our Institution. Calreticulin expression induced by NGF stimulation in cell lines was evaluated using RT-PCR, Western blot and immunocytochemistry. We found a significant increase of calreticulin mRNA levels in epithelial ovarian cancer samples as compared