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Ovarian cancer is the most lethal tumor of the female genital tract in Thailand. Oncogenes have been found to play significant roles in human tumorigenesis. The HER-2/neu oncogene (also known as C-erbB-2) is of interest because it is amplified in ovarian cancer. This study was undertaken to examine whether amplification of HER-2/neu was frequently observed in ovarian cancer of different histological types, grades, and stages. HER-2/neu was amplified in 38.9% of 36 fresh ovarian tumors and 82.5% of 17 paraffin-embedded ovarian cancer tissues analyzed by Southern blot hybridization and Polymerase Chain Reaction, respectively. Correlation between amplification and histological types, grades, and stages at significance level  $p \leq 0.05$  was also observed. Although HER-2/neu amplification was frequently present in ovarian cancer tissues, whether this oncogene may serve as a sole prognostic marker still remains uncertain.