

The Study of Siah2 in Oral Squamous Cell Carcinoma

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Abstract

Oral Squamous Cell Carcinomas is the fifth common form of cancer in the world. The gene *SIAH2* is located at 3q25 and the protein translated from *SIAH2* involved in ubiquitin pathway as one kinds of specificity E3 Ubiquitin ligase. E3 Ubiquitin ligase has much relationship with many cancer researches, and there also has been some studies about anomaly expression of *SIAH2* in carcinogenesis. We had detected the whole genome of ten oral patients by aCGH (Array-based Comparative Genomic Hybridization) and found that 80% of oral cancer patients had the situation of *SIAH2* copy number amplification. We demonstrate that overexpression of *SIAH2* in OSCC cell lines and patients. Furthermore, we investigate the function of *SIAH2* by the RNA interference (RNAi) technology in order to evaluate the role of *SIAH2* in OSCC. To verify the RNAi-induced expression, we examined *SIAH2* mRNA and protein expression by real time RT-PCR, Western blotting and Immunocytochemistry. Our results showed that knockdown of *SIAH2* could inhibit cell growth. In the further study, we would like to investigate that genomic aberrations of *SIAH2* may contribute to the pathogenesis of OSCC.