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Evaluation of expression of *NUDCD1* gene in colorectal cancer tissue specimens using Real time RT- PCR

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Abstract

Introduction and aim: Colorectal cancer is the most common gastrointestinal cancer. More than one million new cancer cases are registered yearly. The prevalence of colorectal cancer in Iran is increasing. Identifying genes and pathways witch are involved in cancer and gene expression changes can help early diagnosis and treatment. We evaluated the expression of *NUDCD1*, a tumor antigen, to reach a new molecular insight of colorectal cancer.

Methods: In this study, the expression of *NUDCD1* was measured in 50 cancerous and 50 normal tissues. RNA was extracted from FFPE tissue using Qiagene kit. Reverse Transcriptase was used for cDNA synthesis. Beta-actin gene was selected as an internal control. *NUDCD1* and beta-actin genes expression were measured using the specific primers by Real Time RT-PCR.

Results: The expression of *NUDCD1* was changed in most of samples. This study shows that NUDCD1 protein probably plays an important role in tumorigenesis.

Conclusion: Altered expression of *NUDCD1* gene in some cancerous tissue suggests that this gene can be an immunogenic protein in different cancers and a good target for immunotherapy.

Key words: *NUDCD1,* colorectal cancer, Real time RT- PCR, expression

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