

عنوان مقاله:

HSA-MIR- $\delta 39-\delta p$  promotes gastric adenocarcinoma by disturbing interactions of STK32A-AS1 as a lncRNA

محل انتشار:

دوازدهمین همایش ملی و سومین همایش بین المللی بیوانفورماتیک (سال: 1402)

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خلاصه مقاله:

Gastric cancer (GC) represents the fifth most common tumor and the fourth leading cause of cancer-related deaths worldwide [1]. Several genetic and epigenetic factors, including microRNAs (miRNAs) and lncRNAs, affect its initiation and progression. miRNAs are short chains of nucleic acids that can regulate several cellular processes by controlling their gene expression, Long noncoding RNA (lncRNA) is a large class of RNA molecules with size larger than 200 nucleotides. They exhibit cellular functions although having no protein-coding capability [2]. In recent decades, miRNAs and lncRNAs have been studied and considered as impactful biomarkers in cancer. In the present study, microarray analysis was performed on GSE81948 in the field of GC from the GEO database. The SERPINE1 gene was selected as a gene with significant over expression after checking with ENCOR1 and GEPIA2 databases. The signaling pathways in which the SERPINE1 gene was active and was checked by KEGG database. The protein-protein interaction of the gene was analyzed by using STRING database. The interaction between the desired gene and its related miRNAs was checked by miRWalk database. After analyzing the desired gene with its related miRNAs, hsa-mir- $\delta 39-\delta p$  was selected as the miRNA affecting the 3'UTR region. STK32A-AS1 lncRNA was selected in the lncRResearch database as the lncRNA associated with the SERPINE1 gene. This up-regulated gene (SERPINE1) has correlation with a down-regulated gene which is DNER. In conclusion, the interaction between the selected lncRNA and its related miRNAs was studied. After microarray analysis on SERPINE1 gene, the result of this study showed that the gene which was mentioned has a significant increase in expression in gastric cancer.

کلمات کلیدی:

Gastric cancer, gene expression, SERPINE1 gene, GSE81948

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