

عنوان مقاله:

Evaluation and comparison of the effect of anti-SALL4 siRNA on growth and sensitivity of the colorectal cancer cell line

محل انتشار:

دومین کنگره بین المللی پزشکی شخصی (سال: 1396)

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خلاصه مقاله:

Colorectal cancer is the third most common cancer in men and women, and is the second leading cause of cancer deaths in many countries. Spalt like transcription factor 4 is a transcription factor that plays a major role in the proliferation of cancerous cells. SiRNA is a short-chain molecule of 20 to 25 nucleotides that protrude on two sides of the 3', two nucleotides. In this study, using a specific sequence of SiRNA against the sequence of this gene, its activity is investigated in the cell line of colorectal cancer (sw742). The colorectal cancer cells (sw742) were cultured and then, using a specific anti-SALL4 SiRNA, their toxic doses were determined. Then, the gene is introduced into the cell using lipofectam, and the expression of the gene is measured using the Real Time-PCR method. The specific concentration of SiRNA IC50 of the SALL 4 gene was 62.5 nmole. The results of the gene expression test showed that the expression of SALL4 gene in the SiRNA group was significant (2 fold). Apoptosis gene expression results showed that expression of Bcl-2 gene in the siRNA group was significantly reduced (5 fold). Cell cycle results in the group treated with SiRNA and the cell control group showed that the treated group had a higher percentage of SubG1 (23.08%) compared with the control group of cells (0.66%). SubG1 percent represents apoptosis in the cell ($P < 0.05$). SiRNA can increase the standard drug effect in colorectal cancer cells by reducing the gene expression of SALL4, it can be used as a combination drug. This strategy, in addition to increasing the sensitivity of cancer cells to the standard drug, also reduces the dose of it.

کلمات کلیدی:

Colorectal cancer, SALL4, siRNA, Bcl-2

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