

عنوان مقاله:

Investigating the effects of miR-۱۳۸ replacement on inhibiting cell migration and induction of apoptosis in breast cancer cell line

محل انتشار:

چهارمین کنگره بین المللی و شانزدهمین کنگره ملی ژنتیک (سال: 1399)

تعداد صفحات اصل مقاله: 1

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خلاصه مقاله:

Background and Aim: MicroRNAs (small noncoding RNAs of ۲۰-۲۴ nucleotides long) are involved in the regulation of post-transcriptional gene expression, have close links with various cancers. Of these, miR-۱۳۸ is a well-known microRNA with multiple tumor suppressor effects. In this study we investigated the effects of miR-۱۳۸ replacement on inhibiting cell migration and induction of apoptosis in breast cancer cell line. **Methods:** At first miR-۱۳۸ mimic was transfected into MAD-MB-۲۳۱ cells using electroporation method and optimum dose of miR-۱۳۸ was determined by MTT assay. At next stages we evaluated the effects of miR-۱۳۸ mimic on cell migration and apoptosis using wound healing assay and Annexin V- FITC/PI kit (flowcytometry) respectively. All data was analyzed by Graph Pad Prism software. **Results:** The optimum dose of transfected miR-۱۳۸ mimic into MDA-MB-۲۳۱ cells was determined in ۲۰ pMol/ul. The flowcytometry method demonstrated that transfected cells with miR-۱۳۸ mimic have significant apoptotic profiles in comparison with control cells and transfected cells with NC-miR-mimic. As well as, wound healing assay showed that miR-۱۳۸ mimic decreases the migration ability of cells. **Conclusion:** This study showed that miR-۱۳۸ is downregulated in MDA-MB-۲۳۱ cells in comparison with control cells. Also the transfection of miR-۱۳۸ mimic into MDA-MB-۲۳۱ cells decreases cell migration and induces cell apoptosis.

کلمات کلیدی:

miR-۱۳۸, Transfection, Migration, Apoptosis

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