

عنوان مقاله:

Investigation Effect of miR-۴۵۱ and miR-۱۶ in α -Chain on Erythroid Lineage in Electromagnetic Field Residing in Radiated Human Fibroblasts

محل انتشار:

فصلنامه ژنتیک و ژنومیک انسانی، دوره 5، شماره 1 (سال: 1400)

تعداد صفحات اصل مقاله: 7

نویسندگان:

.Nafiseh Karoubi - Department of Cell Biology and Genetics, Islamic Azad University, Bushehr, Iran

.Gholamreza Khamisipour - Department of Hematology, Faculty of Allied Medicine, University of Medical Sciences, Bushehr, Iran

.Nahid Babaei - Department of Cell Biology and Genetics, Islamic Azad University, Bushehr, Iran

Narges Obeidi - Department of Hematology, University of Medical Sciences, Bushehr, Iran

.Abbas Doosti - Biotechnology Research Center, Islamic Azad University, Shahrekord, Iran

خلاصه مقاله:

Background: MicroRNAs (miRNAs) are Endogenous, non-coding, single-stranded short RNAs regulatory RNAs are involved in a number of biological processes. The aim of this study was to study the direct differentiation of human fibroblast cells into erythrocytes by inducing electromagnetic waves using miR-۴۵۱ and miR-۱۶ in α chains. Methods: In the present experimental study, human fibroblasts are radiated with Δ , ۱۰ and ۱۵ mT electromagnetic field. Given that the best results are obtained with an intensity of ۱۰ mT, so this test is performed by radiating ۱۰ mT of Tesla's electromagnetic field. Then they were divided into ۱۰ study groups. After cell culture, expression of miR-۱۶ and miR-۴۵۱ that were-radiated by RT-PCR. Results: Our results confirmed that the simultaneous regulation of miR-۱۶ and miR-۴۵۱ stimulates the expression of genes involved in the erythroid differentiation pathway with greater potency. Conclusion: Our results showed that the electromagnetic field on the erythroid lineage of radiated human fibroblasts can have a great effect on increasing the expression of miR-۴۵۱ and miR-۱۶. Although this method requires further studies, but positive results can be increased. The expression of the studied genes can be suitable for research studies of hematopoietic stem cells

کلمات کلیدی:

miR-۴۵۱, miR-۱۶, Erythroid, Fibroblasts, Electromagnetic Field

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/2059545>

