

## عنوان مقاله:

Comparison of miR-24, miR-106a and miR-107 Expression in Identical Twins of Different Ages

## محل انتشار:

مجله علمی پژوهشی دانشگاه علوم پزشکی زنجان، دوره 23، شماره 96 (سال: 1393)

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## خلاصه مقاله:

**Background and Objective:** Aging like many complex traits is the result of interaction between genome and environmental factors and epigenetic mechanisms as a central connector links these two markers. So far, investigations on age-related characteristics and biomarkers predicting survival and risk of death have been carried out, none of which led to an overall consensus among the researchers. Identical twins are good models to study epigenetic changes associated with senescence. MicroRNAs are small non-coding regulatory RNA molecules known as one of the epigenetic mechanisms involved in the aging process. The aim of this study was to compare some of miRNAs expression associated with aging in pairs of identical twins. **Materials and Methods:** In this study, variations in expression of miR-106a, miR-24 and miR-107 whose target genes are associated with cell cycle regulation, in six pairs of identical twins within two age ranges of 15 - 17 and 45 - 50 years old were studied using qRT-PCR technique. **Results:** There was a significant difference in expressions of miR-24, miR-106a and miR-107 (Fold change= 22 and 37) between two age ranges. Also, the level of discordance in expression of all three miRNAs between twins increased with aging (Fold change= 401 and 733). **Conclusion:** Increase in the expression of miR-106a, miR-24 and miR-107 may be considered as a marker of aging. A trend rising differences in expression levels related to aging may confirm the environmental effects on the identical twins.

## کلمات کلیدی:

Keywords: Twins, Epigenetic, miRNA, Ageing

## لینک ثابت مقاله در پایگاه سیویلیکا:

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