عنوان مقاله:
Effect of zinc sulphate on adipogenic differentiation of rat bone marrow-derived mesenchymal stem cells

محل انتشار:
دومین کنگره سراسری فناوریهای نوین ایران با هدف دستیابی به توسعه یابیدار (سال: 1394)

تعداد صفحات اصل مقاله: 7 صفحه

نویسنده‌گان:
Ezzatollah Fathi - Department of Clinical Sciences, Faculty of Veterinary Medicine, University of Tabriz, Tabriz, Iran
Raheleh Farahzadi - Young Researchers And Elite Club, Tabriz Branch, Islamic Azad University, Tabriz, Iran.

خلاصه مقاله:
Background: Zinc ion as certain essential trace element was reported to be involved in some biological process such as metabolism of RNA and DNA, signal transduction, steroid receptor expression and etc. Objective: The present study describes the effect of zinc sulphate (ZnSO₄) on adipogenic differentiation of rat bone marrow-derived mesenchymal stem cells (BMSCs). Material and methods: Rat BMSCs were isolated, adipogenic differentiated and treated with or without ZnSO₄. Adipogenic differentiation was confirmed by oil red staining. The lipoprotein lipase (LPL) and peroxisome proliferator-activated receptor-gamma (PPAR-γ) gene expression was determined by Q-PCR. Results: Q-PCR analysis showed that the level of LPL and PPAR-γ were decreased in the treated cells with ZnSO₄. Conclusions: These findings demonstrate that ZnSO₄, an essential trace element cannot promote adipogenic differentiation of BMSCs.

کلمات کلیدی:
-zinc sulphate, adipogenic differentiation, lipoprotein lipase, peroxisome proliferator activated receptor-gamma, bone marrow-derived mesenchymal stem cell, Q-PCR

لینک ثابت نیت مقاله در سیویلیکا:
https://www.civilica.com/Paper-SENACONF02-SENACONF02_276.html