

## عنوان مقاله:

The effect of stem cell factor on proliferation of human endometrial CD146+ cells

## محل انتشار:

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## نویسندگان:

Mehri Fayazi - Department of Medical Sciences, Najafabad Branch, Islamic Azad University, Najafabad, Iran

Mojdeh Salehnia - Department of Anatomy, Faculty of Medical Sciences, Tarbiat Modares University, Tehran, Iran

Saeideh Ziaei - Department of Midwifery, Faculty of Medical Sciences Tarbiat Modares University, Tehran, Iran

## خلاصه مقاله:

**Background:** Stem cell factor (SCF) is a transcriptional factor which plays crucial roles in normal proliferation, differentiation and survival in a range of stem cells. **Objective:** The aim of the present study was to examine the proliferation effect of different concentrations of SCF on expansion of human endometrial CD146+ cells. **Materials and Methods:** In this experimental study, total populations of isolated human endometrial suspensions after fourth passage were isolated by magnetic activated cell sorting (MACS) into CD146+ cells. Human endometrial CD146+ cells were karyotyped and tested for the effect of SCF on proliferation of CD146+ cells, then different concentrations of 0, 12.5, 25, 50 and 100 ng/ml was carried out and mitogens-stimulated endometrial CD146+ cells proliferation was assessed by MTT assay. **Results:** Chromosomal analysis showed a normal metaphase spread and 46XX karyotype. The proliferation rate of endometrial CD146P + P cells in the presence of 0, 12.5, 25, 50 and 100 ng/ml SCF were  $0.945 \pm 0.094$ ,  $0.962 \pm 0.151$ ,  $0.988 \pm 0.028$ ,  $1.679 \pm 0.012$  and  $1.129 \pm 0.145$  respectively. There was a significant increase in stem/ stromal cell proliferation following in vitro treatment by 50 ng/ml than other concentrations of SCF ( $p=0.01$ ). **Conclusion:** The present study suggests that SCF could have effect on the proliferation and cell survival of human endometrial CD146P+P cells and it has important implications for medical sciences and cell therapies

## کلمات کلیدی:

Endometrium, Stem cell factor, Stromal cells

## لینک ثابت مقاله در پایگاه سیویلیکا:

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