


[Contact](#) [Support](#)

[Home](#) [Publications](#) [Resources](#) [Librarians](#) [Press](#) [Advertise](#)

 Hello. [Sign in](#) to personalize your visit. New user? [Register now](#).

Author information

Leila Hosseinzadeh Anvar,^{1,2} Saeid Hosseini-Asl,² Mohammad Mohammadzadeh-Vardin,¹ and Mohsen Sagha¹

¹Research Laboratory for Embryology and Stem Cells, Department of Anatomical Sciences and Pathology, Faculty of Medicine, Ardabil University of Medical Sciences, Ardabil, Iran.

²Laboratory of Medical Genetics, Imam Khomeini Hospital, Ardabil University of Medical Sciences, Ardabil, Iran.

Address correspondence to:

Mohsen Sagha, PhD

Department of Anatomical Sciences and Pathology

Faculty of Medicine

Ardabil University of Medical Sciences

University Street

Ardabil province

Ardabil 56189-53141

Iran

E-mail: m.sagha@arums.ac.ir

Received for publication June 10, 2016

received in revised form October 1, 2016

accepted October 3, 2016

ABSTRACT

Selenium—as a trace element—is nutritionally essential for humans. It prevents cancerous growth by inhibiting the telomerase activity but the mechanism involved in regulation of telomerase activity in normal telomerase-positive cells remains to be elucidated. Here, we find out whether the effect of sodium selenite and selenomethionine on telomerase activity in human umbilical cord-derived mesenchymal stem cells (hUCMSCs) is associated with different levels of *c-Myc* and *p53* expression. The use of different staining methods including ethidium bromide/acridine orange and DAPI in addition to telomeric repeat amplification protocol assay and real-time PCR indicated that different forms of selenium have opposite impacts on *c-Myc* and *p53* expressions in both hUCMSCs and AGS, a gastric adenocarcinoma cell line, as a positive control. Our findings suggest that the signaling pathways involved in the regulation of telomerase activity in malignant and normal telomerase-positive cell types are somewhat different, at least on the *c-Myc* and *p53* expression levels.

You have requested the following:



The Telomerase Activity of Selenium-Induced Human Umbilical Cord Mesenchymal Stem Cells Is Associated with Different Levels of *c-Myc* and *p53* Expression

Hosseinzadeh Anvar Leila, Hosseini-Asl

Saeid, Mohammadzadeh-Vardin

Mohammad, and Sagha Mohsen

DNA and Cell Biology. null, Vol. 0, No. 0

- ☒ **PAY PER VIEW** DNA and Cell Biology - 0(0):; The Telomerase Activity of Selenium-Induced Human Umbilical Cord Mesenchymal Stem Cells Is Associated with Different Levels of *c-Myc* and *p53* Expression (access for 24 hours for US \$51.00)

[ADD TO CART](#)

A subscription provides access to the full publication content including complete archival access. Visit the pricing options page to start your subscription today.

[See pricing options.](#)

SUBSCRIBER LOGIN

Already a subscriber? Login to access this journal.

Username:

Password:

[Forgot password?](#) [Register](#)

[Institution Login](#)

☐ Remember me

[LOGIN](#)

[GET STARTED](#)

Recommend this title to your library using our convenient web-based form. [→](#)

**RESOURCES/TOOLS**

Advertising Solutions
Download Publication List
For Librarians
Licensing – Institutional
Licensing – Personal
Liebert Author Advocacy
Program
Liebert for Mobile (L4M)
Liebert Open Access
My Liebert Connect Email
Preference Center
NIH/HHMI Wellcome Trust
Policies
Recommend a Title
Self-Archiving Policy

SUBSCRIPTIONS

Change of Address
Customer Support
Licensing – Personal

NEWS & EVENTS

Company News
Events
Press

ONLINE ACCESS

Additional Tools
Full Text Papers
Getting Started
Institutional Admin
Searching
User Accounts

COMPANY

About Us
Conferences
Contact
Directions
Institute for Professional
Education
Privacy Policy

Technology Partner: [Atypon Systems, Inc.](#)

Copyright©2012 Mary Ann Liebert, Inc. publishers. All rights reserved, USA and worldwide.

