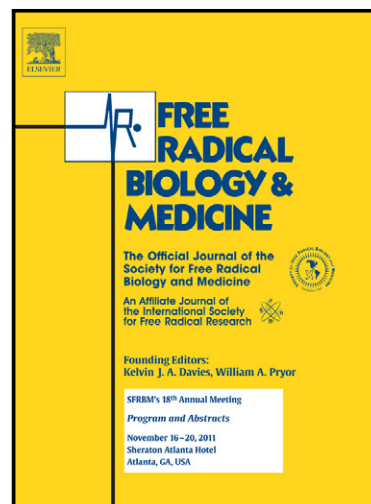


APE1 promotes antioxidant capacity by regulating Nrf-2 function through a redox-dependent mechanism

Jin-Lu Shan, Hai-Tao He, Meng-Xia Li, Jian-Wu Zhu, Yi Cheng, Nan Hu, Ge Wang, Dong Wang, Xue-Qin Yang, Yong He, Hua-Liang Xiao, Wei-Dong Tong, Zhen-Zhou Yang



[www.elsevier.com/locate/freeradbiomed](http://www.elsevier.com/locate/freeradbiomed)

PII: S0891-5849(14)00455-9  
DOI: <http://dx.doi.org/10.1016/j.freeradbiomed.2014.10.007>  
Reference: FRB12173

To appear in: *Free Radical Biology and Medicine*

Received date: 4 March 2014  
Revised date: 30 September 2014  
Accepted date: 7 October 2014

Cite this article as: Jin-Lu Shan, Hai-Tao He, Meng-Xia Li, Jian-Wu Zhu, Yi Cheng, Nan Hu, Ge Wang, Dong Wang, Xue-Qin Yang, Yong He, Hua-Liang Xiao, Wei-Dong Tong, Zhen-Zhou Yang, APE1 promotes antioxidant capacity by regulating Nrf-2 function through a redox-dependent mechanism, *Free Radical Biology and Medicine*, <http://dx.doi.org/10.1016/j.freeradbiomed.2014.10.007>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting galley proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

# **APE1 promotes antioxidant capacity by regulating Nrf-2 function through a redox-dependent mechanism**

**Jin-Lu Shan<sup>a1</sup>, Hai-Tao He<sup>b1</sup>, Meng-Xia Li<sup>a</sup>, Jian-Wu Zhu<sup>a</sup>, Yi Cheng<sup>a</sup>, Nan Hua<sup>a</sup>,  
Ge Wang<sup>a</sup>, Dong Wang<sup>a</sup>, Xue-Qin Yang<sup>a</sup>, Yong He<sup>c</sup>, Hua-Liang Xiao<sup>d</sup>, Wei-Dong  
Tong<sup>e</sup>, Zhen-Zhou Yang<sup>a\*</sup>**

<sup>a</sup>Cancer Center, Research Institute of Surgery, Daping Hospital, Third Military Medical University 10 Changjiang Zhilu, Daping Yuzhong District, Chongqing 400042, P.R. China

<sup>b</sup>Department of Oral and maxillofacial surgery, Research Institute of Surgery, Daping Hospital, Third Military Medical University, Chongqing 400042, P.R. China

<sup>c</sup>Department of Respiration, Research Institute of Surgery, Daping Hospital, Third Military Medical University, Chongqing 400042, P.R. China

<sup>d</sup>Department of Pathology, Research Institute of Surgery, Daping Hospital, Third Military Medical University, Chongqing 400042, P.R. China

<sup>e</sup>Department of General surgery, Research Institute of Surgery, Southwest Hospital, Third Military Medical University, Chongqing 400042, P.R. China

\*Corresponding author. Tel.: +86 23 68757182; fax: +86 23 68894062.

Email: yangzhenzhou@sohu.com

## **ABSTRACT**

APE1 is a multifunctional protein that has recently been implicated in protecting cells from oxidative stress. In current study, we confirmed that APE1's effect on cellular antioxidant capacity is related to its redox activity through the use of an APE1 functional mutant, and we investigated the mechanism through which this multifunctional protein affects the function of the transcription factor Nrf-2 in regulating oxidative stress-induced genes. Using a pair of mutants for both the

---

<sup>1</sup> These authors contributed equally to this work.

Download English Version:

<https://daneshyari.com/en/article/8269567>

Download Persian Version:

<https://daneshyari.com/article/8269567>

[Daneshyari.com](https://daneshyari.com)