

Accepted Manuscript

Superoxide-hydrogen peroxide genetic imbalance modulates differentially the oxidative metabolism on human peripheral blood mononuclear cells exposed to seleno-L-methionine

Karen Lilian Schott, Charles Elias Assmann, Fernanda Barbisan, Verônica Farina Azzolin, Beatriz Bonadiman, Marta Maria Medeiros Frescura Duarte, Alencar Kolinski Machado, Ivana Beatrice Mânica da Cruz

PII: S0009-2797(17)30275-2

DOI: [10.1016/j.cbi.2017.05.007](https://doi.org/10.1016/j.cbi.2017.05.007)

Reference: CBI 7995

To appear in: *Chemico-Biological Interactions*

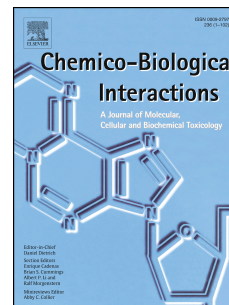
Received Date: 9 March 2017

Revised Date: 20 April 2017

Accepted Date: 7 May 2017

Please cite this article as: K.L. Schott, C.E. Assmann, F. Barbisan, Verônica Farina Azzolin, B. Bonadiman, M.M.M.F. Duarte, A.K. Machado, Ivana Beatrice Mânica da Cruz, Superoxide-hydrogen peroxide genetic imbalance modulates differentially the oxidative metabolism on human peripheral blood mononuclear cells exposed to seleno-L-methionine, *Chemico-Biological Interactions* (2017), doi: [10.1016/j.cbi.2017.05.007](https://doi.org/10.1016/j.cbi.2017.05.007).

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 proof before it is published in its final 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.



1 Superoxide-Hydrogen peroxide genetic imbalance modulates differentially the oxidative
2 metabolism on human peripheral blood mononuclear cells exposed to Seleno-L-
3 methionine

4
5 Karen Lilian Schott^{a,b}, Charles Elias Assmann^{a,b}, Fernanda Barbisan^{a,c}, Verônica Farina
6 Azzolin^{a,c}, Beatriz Bonadiman^{a,c}, Marta Maria Medeiros Frescura Duarte^d, Alencar
7 Kolinski Machado^{a,c}, Ivana Beatrice Mânica da Cruz^{a,b,c,*}

8
9 ^aBiogenomics Laboratory, Federal University of Santa Maria, Santa Maria, RS, Brazil

10 ^bGraduate Program of Biological Sciences: Toxicological Biochemistry, Federal
11 University of Santa Maria, Santa Maria, RS, Brazil

12 ^cGraduate Program of Pharmacology, Federal University of Santa Maria, Santa Maria,
13 RS, Brazil

14 ^dLutheran University of Brazil, Santa Maria, RS, Brazil

15 *Corresponding author:

16 Postal address: 1000 Roraima Av., Building 19, Room 3101, Santa Maria, RS, Brazil,
17 Zip Code: 97105900. E-mail: ivana.biogenomica@gmail.com, Phone number: +55 55
18 32208163.

19 ¹*Abbreviations*: CAT, catalase E.C. 1.11.1.6; DTNB, 5,5'-Dithiobis(2-nitrobenzoic acid); Fe²⁺, ferrous iron;
20 GPx, glutathione peroxidase EC 1.11.1.9; NO, nitric oxide; O₂^{•-}, superoxide radical; OH[•], hydroxyl radical;
21 PBMC, peripheral blood mononuclear cells; PBS, phosphate-buffered saline; PI, propidium iodide; RSe-,
22 selenide anion; Sec, selenocysteine amino acid; SeMet, seleno-L-methionine; SePhp, selenophosphate;
23 S-HP, Superoxide-hydrogen peroxide; SOD, superoxide dismutase; SPS2, selenophosphate sintethase
24 2; T, thymine; TBARS, thiobarbituric acid reactive substances; tRNA, transfer ribonucleic acid;
25 tRNA[Ser]Sec, selenocysteine designated tRNA; TrxR, thioredoxin reductase EC 1.8.1.9; Val, valine;
26 Val16Ala-MnSOD, gene polymorphism in the human manganese superoxide dismutase enzyme.

Download English Version:

<https://daneshyari.com/en/article/5559316>

Download Persian Version:

<https://daneshyari.com/article/5559316>

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