
# The reversal effect of physical exercise on aging-related increases in APPL2 content in skeletal muscle

Paulo Henrique Canciglieri, Gabriel Keine Kuga, Vitor Rosetto Muñoz, Rafael Calais Gaspar, Alisson Luiz da Rocha, Leonardo Breda, Chadi Pellegrini Anaruma, Luciele Guerra Minuzzi, Adelino Sanchez Ramos da Silva, Dennys Esper Cintra, Leandro Pereira de Moura, Eduardo Rochete Ropelle, José Rodrigo Pauli

| | |
|---|---|
| PII: | S0024-3205(18)30542-3 |
| DOI: | doi:10.1016/j.lfs.2018.09.006 |
| Reference: | LFS 15927 |
| To appear in: | *Life Sciences* |
| Received date: | 28 June 2018 |
| Revised date: | 14 August 2018 |
| Accepted date: | 2 September 2018 |

Please cite this article as: Paulo Henrique Canciglieri, Gabriel Keine Kuga, Vitor Rosetto Muñoz, Rafael Calais Gaspar, Alisson Luiz da Rocha, Leonardo Breda, Chadi Pellegrini Anaruma, Luciele Guerra Minuzzi, Adelino Sanchez Ramos da Silva, Dennys Esper Cintra, Leandro Pereira de Moura, Eduardo Rochete Ropelle, José Rodrigo Pauli , The reversal effect of physical exercise on aging-related increases in APPL2 content in skeletal muscle. Lfs (2018), doi:10.1016/j.lfs.2018.09.006

# The reversal effect of physical exercise on aging-related increases in APPL2 content in skeletal muscle

Paulo Henrique Canciglieri * [1], Gabriel Keine Kuga * [2], Vitor Rosetto Muñoz [1], Rafael Calais Gaspar [1], Alisson Luiz da Rocha [3], Leonardo Breda [1], Chadi Pellegrini Anaruma [2], Luciele Guerra Minuzzi [1], Adelino Sanchez Ramos da Silva [3], Dennys Esper Cintra [4 5], Leandro Pereira de Moura [1 2 5 6], Eduardo Rochete Ropelle [1 5 6], José Rodrigo Pauli [1 5 6]

* These authors contributed equally to this work.

[1] Laboratory of Molecular Biology of Exercise (LaBMEx). School of Applied Sciences, University of Campinas (UNICAMP), Limeira – SP, Brazil.

[2] Post-graduate Program in Movement Sciences, São Paulo State University (UNESP), Rio Claro – SP, Brazil.

[3] School of Physical Education and Sport of Ribeirao Preto, University of Sao Paulo, Ribeirao Preto – SP, Brazil.

[4] Laboratory of Nutritional Genomics (LabGeN). School of Applied Sciences, University of Campinas (UNICAMP), Limeira – SP, Brazil.

[5] Laboratory of Cell Signaling, Obesity and Comorbidities Research Center (OCRC), University of Campinas, Campinas – SP, Brazil

[6] CEPECE - Center of Research in Sport Sciences. School of Applied Sciences, University of Campinas (UNICAMP), Limeira – SP, Brazil.

Corresponding author: José Rodrigo Pauli Ph.D., School of Applied Sciences,