

## **Early Postnatal Cardiomyocyte Proliferation Requires High Oxidative Energy Metabolism**

**Ana Elisa Teófilo Saturi de Carvalho<sup>1</sup>, Vinícius Bassaneze<sup>1</sup>, Maria Fernanda Forni<sup>2</sup>, Aline Alfonso Keusseyan<sup>1</sup>, Alicia Juliana Kowaltowski<sup>2</sup>, José Eduardo Krieger<sup>1\*</sup>**

<sup>1</sup> Laboratory of Genetics and Molecular Cardiology/LIM 13, Heart Institute (InCor- HCFMUSP), University of São Paulo Medical School, São Paulo, Brazil.

<sup>2</sup> Departamento de Bioquímica, Instituto de Química, Universidade de São Paulo, Brazil.

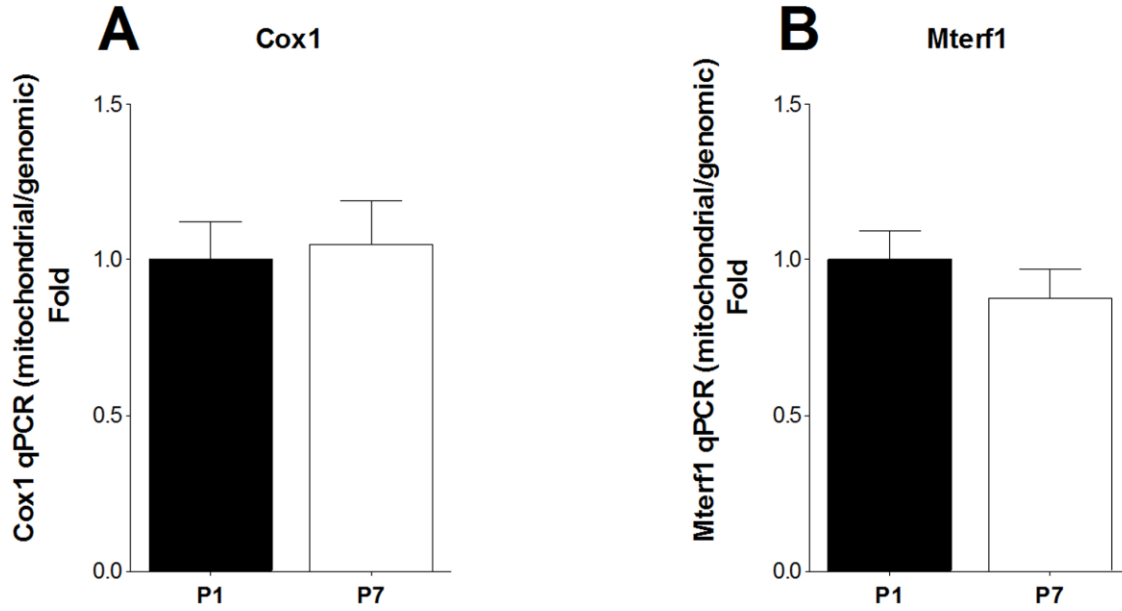
\* Correspondence to Jose E. Krieger, Genetics and Molecular Cardiology/LIM 13, Heart Institute, University of São Paulo Medical School, Av. Dr. Enéas C. Aguiar 44, 05403-000, São Paulo, SP, Brazil. <http://genetica.incor.usp.br/>

Telephone: 55 11 3069 5068; Fax: 55 11 3069 5022

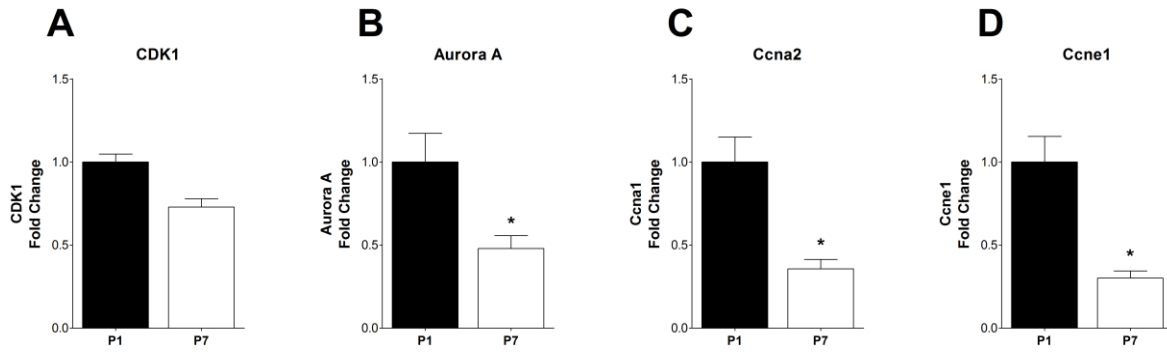
E-mail: [krieger@incor.usp.br](mailto:krieger@incor.usp.br)

# Mitochondrial / gDNA

Cell culture



**Supplemental Figure 1:** Mitochondrial DNA quantification for Cox I and Mterf1 genes as a measure of mitochondrial content in cell cultures (P1 vs. P7; (n = 6 for both); t-test, NS). Data is normalized to genomic DNA.



**Supplemental Figure 2:** Expression profile of genes related to proliferation in P1 vs. P7 tissues. A) Cdk1, B) Aurora A, C) Ccna2 and D) Ccne1. Fold change  $\pm$  SD, \*  $p < 0.05$ ).

**Supplemental Table 1:** List of all primers used in this study. For primers used in RT-PCR experiments, at least one intron between each pair of primers was considered to avoid genomic DNA amplification.

Primer	RefSeq ID	Primer Sequence	Tm (°C)	Amplicon Size
r Aldoc Fw	<a href="#">NM_012497.1</a>	GAATGGTATCGTGCCCATCG	60	211
r Aldoc Rev		GGCGATCTCTTCTGGGCTAT		
r Lrrk2 Fw	<a href="#">NM_001191789.1</a>	AGCTGTCCTACTCTGGGAGG	60	204
r Lrrk2 Rev		ACCCCAAACCAGCATGACA		
r Ndufv3 Fw	<a href="#">NM_001101011.2</a>	TCTCGAGGCAAAGGTGTTCC	60	157
r Ndufv3 Rev		GTAGGTGGTGGTGCTACTCG		
r Ucp2 Fw	<a href="#">NM_019354.3</a>	CTTGATCTTGAGGCCCTCAGC	60	138
r Ucp2 Rev		TCTGACTTCCTGCTACCTCCC		
r Ccne1 Fw	<a href="#">NM_001100821.1</a>	CCTCTCAGTCCGATCCAGAAA	60	172
r Ccne1 Rev		TTTGTTAGGGGTGGGGATGA		
r Ccna2 Fw	<a href="#">NM_053702.3</a>	CCTGCATTTGGCTGTGAACT	60	141
r Ccna2 Rev		AACTCTGCTACTTCTGGGGG		
r Aurka Fw	<a href="#">NM_153296.2</a>	GTATTTCCATGACGCCACCA	60	140
r Aurka Rev		ACAAAGCATTCGCCAACTCC		
r Actb Fw	<a href="#">NM_031144.3</a>	TCTACAATGAGCTGCGTGTG	60	76
r Actb Rev		TTGGCCTTAGGGTTCAGAGG		
r Cox1 Fw	NC_001665.2	TGCTGGAGCATCCGTAGATT	60	63
r Cox1 Rev		AAGATAGAAGACACCCCGGC		
r Mterf1 Fw	NC_005103.4	CTGCTCTGTTGGGTTGACTC	60	75
r Mterf1 Rev		AGACTGTTGGAGAAGGTCCTG		

