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## Data Article

# Data on cell viability of human lung fibroblasts treated with polyphenols-rich extract from *Plinia trunciflora* (O. Berg) Kausel)



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## ABSTRACT

Jaboticaba (*Plinia trunciflora* (O. Berg) Kausel) is a Brazilian native berry, which presents high levels of polyphenols. Here we provide data related to the effects of the polyphenols-rich extract from jaboticaba on the cell viability, mitochondrial complex I (nicotinamide adenine dinucleotide/CoQ oxidoreductase) activity and ATP biosynthesis of human lung fibroblast cells (MRC-5) treated with amiodarone. The data presented in this article demonstrate that the polyphenols-rich extract from jaboticaba was able to reduce cell death as well as the decrease in complex I activity and ATP biosynthesis caused by amiodarone in MRC-5 cells.

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## Specifications Table

Subject area	Biochemistry
More specific subject area	Cell culture
Type of data	Graph

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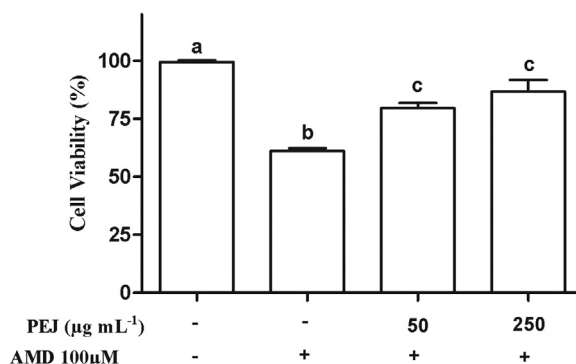
How data was acquired	Data were acquired by spectrophotometry and luminescence, using a microplate reader (Victor-X3, Perkin-Elmer, Finland).
Data format	Analyzed data.
Experimental factors	Human lung fibroblast cells (MRC-5) were grown in DMEM medium and pretreated with two non-cytotoxic concentrations (50 and 250 $\mu\text{g mL}^{-1}$ ) of polyphenols-rich extract from jaboticaba (PEJ) for 1 h and after exposed to 100 $\mu\text{M}$ of amiodarone for 24 h.
Experimental features	Cell viability was evaluated using MTT (3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide) assay, complex I activity was determined by using Complex I Enzyme Activity Microplate Assay Kit (Mitoscience, Abcam, Cambridge, MA, USA), and ATP levels were assayed with the Cell-Titer-Glo <sup>®</sup> kit assay (Promega, Madison, WI).
Data source location	Jaboticaba fruits were collected in Passo Fundo, Rio Grande do Sul (28° 18' 45.75" S; 52° 24' 57.64" W), Brazil. Experiments were performed in the laboratory of Oxidative Stress and Antioxidants at the University of Caxias do Sul, Rio Grande do Sul, Brazil.
Data accessibility	The data are provided in this article.

## Value of the data

- These data bring perspectives for further studies, which will contribute to further understand about the mechanisms of AMD toxicity in human lung cells.
- The finding that PEJ was effective in reducing the damage caused by AMD may contribute to the development of therapies to reduce the pulmonary toxicity of AMD.
- These data open new perspectives to understand the biological effects of the phenolic compounds found in jaboticaba berries.

## 1. Data

Amiodarone (AMD) is widely used to treat cardiac arrhythmia, however it presents some adverse effects, which include pulmonary toxicity [1]. Jaboticaba present high levels of polyphenols, including cyaniding-3-*O*-glucoside and kaempferol [2], which are recognized as molecules capable of modulating pathways that defines mitochondrial processes of eukaryotic cells, such as complex I activity



**Fig. 1.** Viability of MRC-5 cells pretreated with PEJ (50 and 250  $\mu\text{g mL}^{-1}$ ) and/or AMD (100  $\mu\text{M}$ ). The results are expressed as mean  $\pm$  SD from at least three independent experiments. Different letters indicate significantly different values among the treatments according to the analysis of variance (ANOVA) and Tukey's post-hoc test. Statistical significance was determined at  $p < 0.05$ .

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