

Garlic Passion Fruit (*Passiflora tenuifila* Killip): Characterization, Antioxidant Capacity and Antiproliferative Activity

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Categoria de apresentação | Presentation type:

Pôster

Eixo temático | Track category:

Alimentos Funcionais: Compostos Bioativos (AC)

Palavras-chave | Keywords:

Passiflora tenuifila

Dietary Fiber

Antiproliferative activity

Resumo (Texto Científico) - Máximo 300 palavras | Abstract (Scientific Text) - (Maximum 300 words):

Passiflora tenuifila Killip is a wild passion fruit, also known as garlic passion fruit. This study aimed evaluates the composition, fibers, total polyphenols and the antioxidant capacity of the *P. tenuifila*, and the antiproliferative activity in tumor cells. *P. tenuifila* were cleaned and all fruit (peel, pulp and seed) mixed in a blender with water (1:1,5), then stored at -18°C prior to the analyses. For the antiproliferative activity, it was lyophilized. The analyses were performed in triplicate: composition (moisture, ash, protein, carbohydrates and lipids), pH, titratable acidity, dietary fiber, total polyphenols and total antioxidant activity by ABTS and FRAP methods. The antiproliferative activity was evaluated at concentrations from 0.25 up to 250 µg/mL against three types of human tumor cells: U251 (glioma, CNS), MCF-7 (breast) and NCI-H460 (lung, no small cells). The results showed that this product can be considered as a source of dietary fiber (6,34%) and natural antioxidants. The total polyphenol content was 316.93 mg gallic acid/100g and the antioxidant capacity was 13.71 µM Trolox/g and 19.65 µM Fe₂SO₄/g by ABTS and FRAP methods, respectively (values on a wet basis, with 89.17% of moisture content). The assays results against tumor cells do not showed antiproliferative activity in the tested concentrations, however, it is suitable to carry out tests with fractionation of the substances presented in the samples or its purified components. Testing concentrations higher than 500 µg/mL are not recommended by the possibility of false positive results. In conclusion, the garlic passion fruit showed a high nutritional / functional quality, being source of dietary fiber and antioxidants with potential to be used as ingredient in food processing. As the author's known, this is the first report about the

composition and the potential as functional food of this exotic fruit.

Órgão de fomento e número do processo | Funding agency and case number:
CNPq 404847/2012-9