

DETERMINATION OF ANTIOXIDANT ENZYME ACTIVITY OF ACEROLA
(*Malpighia emarginata*) PULP.

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Acerola is native to Central America and very well adapted to Brazil, which is the major world producer, consumer and exporter. Antioxidant enzyme systems are considered primary in defense against oxidative damage to cells. Much attention has been focused on the activity of the natural antioxidants present in fruits and vegetables, because these components have the potential to reduce the level of oxidative stress. The aim of this work was to evaluate the antioxidant enzyme potential of acerola pulp (*Malpighia emarginata* L.). Superoxide dismutase (SOD, EC 1.15.1.1) activity was determined according to the method of Giannopolitis e Ries (1977). Catalase (CAT, EC 1.11.1.6) was assayed by the method of Beers e Sizer (1952). Ascorbate peroxidase (APX, EC [1.11.1.1](#)) was assayed by the method of Nakano e Asada (1981). The results show that acerola pulp has two major enzymes working to prevent oxidative damage. SOD and APX had average activities of 1.2 UAE.g.min⁻¹ and 0.21 mmol H₂O₂.g.min⁻¹, respectively. CAT had no significant activity. These results indicate that acerola pulp has an antioxidant potential based on SOD and APX activities, while CAT is inexpressive in preventing oxidative damage.

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