

ABSTRACT

Japanese curry is a popular and highly nutritious meal containing meat, vegetables, and abundant spices. Heat processing reduces the stability of meat towards oxygen, increasing the risks of food oxidation, leading to the destruction of the sensory properties and nutritional value of ready-to-eat meals. Rosemary (*Rosmarinus officinalis*) is a natural antioxidant that has been approved for use as a preservative to slow down or inhibit oxidation in foods. The active compounds available in rosemary extract that give it antioxidant activity are carnosic acid and carnosol. The objectives of this study are to analyze the physicochemical properties of RTE Japanese curry with and without the addition of rosemary extract as a natural antioxidant, including the antioxidant activity, viscosity, and pH, and to determine whether the panelists are able to distinguish samples that are added with rosemary extract along with their preferences. Results show that adding rosemary extract is successful in maintaining the antioxidant activity of the samples, as the radical scavenging activity of samples added with rosemary extract is higher than the control sample on day 7. There is a similar trend in terms of changes in pH and viscosity for all samples. Sensory-wise, as the concentration of the rosemary extract increases, the intensity of the odor and taste increases, which is unpreferred by panelists. A rosemary extract concentration of 0.0025% is suitable for incorporation into the curry samples considering the physicochemical and sensory analysis results obtained.

Keywords : *Japanese curry, rosemary extract, natural antioxidant, ready-to-eat meal*