

عنوان مقاله:

Antioxidant activity of fish viscera protein hydrolysates in fish oil-in-water emulsion

محل انتشار:

چهارمین کنگره بین المللی توسعه کشاورزی، منابع طبیعی، محیط زیست و گردشگری ایران (سال: 1398)

تعداد صفحات اصل مقاله: 5

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خلاصه مقاله:

The present study was formulated in order to develop antioxidant hydrolysates from fish viscera and measure their antioxidant ability in fish oil-in-water emulsions. For this aim, fish discarded viscera was collected and subjected to hydrolysis by Alcalase at three reaction times, i.e. 30, 60, and 90 min. Oxidation in control, VPH-containing and BHT-containing emulsions was measured through peroxide value (PV) and anisidine value (AV). According to the results, the hydrolysates containing smaller peptides, which are achieved at longer reaction times, had lower ability to reduce oxidation in terms of PV but showed better capability of reducing oxidation in terms of AV. These differences in antioxidant activity of the hydrolysates can be attributed to the size of their peptides and amino acid composition and sequence. It can be concluded that fish viscera protein hydrolysate is capable of reduce oxidation in terms of primary and secondary oxidation and therefore, it can potentially be considered as a natural substitute for synthetic agents

کلمات کلیدی:

protein hydrolysate, fish viscera, oil-in-water emulsion, oxidation

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