

Author: [ADVANCED](#) | Volume Page
 Keyword: |



[TOP](#) > [Available Issues](#) > [Table of Contents](#) > [Abstract](#)

ONLINE ISSN : 1881-3984

PRINT ISSN : 1344-6606

Food Science and Technology Research

Vol. 14 (2008) , No. 3 pp.315-318

[\[PDF \(642K\)\]](#) [\[References\]](#)

Occurrence of Thiyl Radical on a Myosin derived from Carp by Superoxide Anion Radical

[Kimio NISHIMURA](#)¹⁾, [Sayaka IKEUCI](#)¹⁾²⁾ and [Yuka MIYAMOTO](#)¹⁾

1) *Department of Food Science and Nutrition, Doshisha Women's College of Liberal Arts*

2) *Ibaragiya Co., Ltd.*

(Received: December 27, 2007)

(Accepted: February 22, 2008)

The mechanism for the beneficial effects of vitamin C (L-ascorbic acid, AsA) on the quality of the heat-induced fish gel, *kamaboko*, has been proposed by Nishimura *et al.* to involve the production of thiyl radical (S·). The generation of S· in myosin by the superoxide anion radical (O₂⁻), produced by the photoactivation of riboflavin, was then examined by electron spin resonance spectroscopy coupled with spin-trapping. Consequently, the production of S· was observed. This generation of S· in myosin was inhibited by the addition of 100 units (u)/ml superoxide dismutase (SOD), whereas heat-inactivated SOD, catalase (1,200 u/ml), and heat-inactivated catalase did not suppress the generation of S·. These results suggested that the generation of S· in myosin occurred due to the presence of O₂⁻.

Keywords: [vitamin C](#), [improvement mechanism](#), [myosin](#), [superoxide anion radical](#), [thiyl radical](#), [electron spin resonance \(ESR\)](#), [kamaboko](#)

[\[PDF \(642K\)\]](#) [\[References\]](#)

Download Meta of Article [\[Help\]](#)

[RIS](#)

[BibTeX](#)

To cite this article:

Occurrence of Thiyl Radical on a Myosin derived from Carp by Superoxide Anion Radical Kimio NISHIMURA, Sayaka IKEUCI and Yuka MIYAMOTO, *FSTR*. Vol. **14**, 315-318. (2008) .

doi:10.3136/fstr.14.315

JOI JST.JSTAGE/fstr/14.315

Copyright (c) 2008 by Japanese Society for Food Science and Technology



[Japan Science and Technology Information Aggregator, Electronic](#)

