

[Available Issues](#) | [Japanese](#)

Author: [ADVANCED](#) | Volume Page

Keyword:



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

Food Science and Technology International, Tokyo

Vol. 2 (1996) , No. 3 pp.157-162

[\[PDF \(778K\)\]](#) [\[1\]](#)

Development of Purification Method and Identification of Antibiotic Produced by *Lactococcus lactis* IO-1

[Hiromi MATSUSAKI](#)¹⁾, [Naoyuki ENDO](#)¹⁾, [Kenji SONOMOTO](#)¹⁾, [ISHIZAKI](#)¹⁾

1) Laboratory of Microbial Technology, Department of Food Science and Technology, Faculty of Agriculture, Kyushu University

(Received: November 27, 1995)

The culture supernatant of *Lactococcus lactis* IO-1, which was isolated from a nisin-producing strain, *L. lactis* NCDO 497. A nisin-like peptide antibiotic produced by *Lactococcus lactis* IO-1 was efficiently purified sequentially by acid treatment (pH 2.0), sulfate precipitation, cation-exchange chromatography and reverse-phase high performance liquid chromatography. Dissociation of the peptide ag-

concentrations of urea resulted in successful purification. The molecular weight of the purified peptide antibiotic was 3335.67 by fast atom bombardment-mass spectrometry. The molecular weight of the peptide antibiotic from *L. lactis* IO-1 is nisin Z, a natural nisin variant. The purification method used is rapid, simple and effective, permitting the specific purification of nisin Z 10-fold, and the recovery was 24%.

Keywords: [nisin](#), [bacteriocin](#), [Lactococcus lactis](#), [lactic acid bacteria](#)

[\[PDF \(778K\)\]](#) [\[References\]](#)



Download

To cite this article:

Hiromi MATSUSAKI, Naoyuki ENDO, Kenji SONOMOTO and
Development of Purification Method and Identification of a Peptide Antibiotic Produced by *Lactococcus lactis* IO-1 FSTI. Vol. 2, 157-162. (

doi:10.3136/fsti9596t9798.2.157