

BUKTI KORESPONDENSI
ARTIKEL JURNAL INTERNASIONAL BEREPUTASI

Nama Jurnal : Pertanika Journal of Tropical Agricultural Science

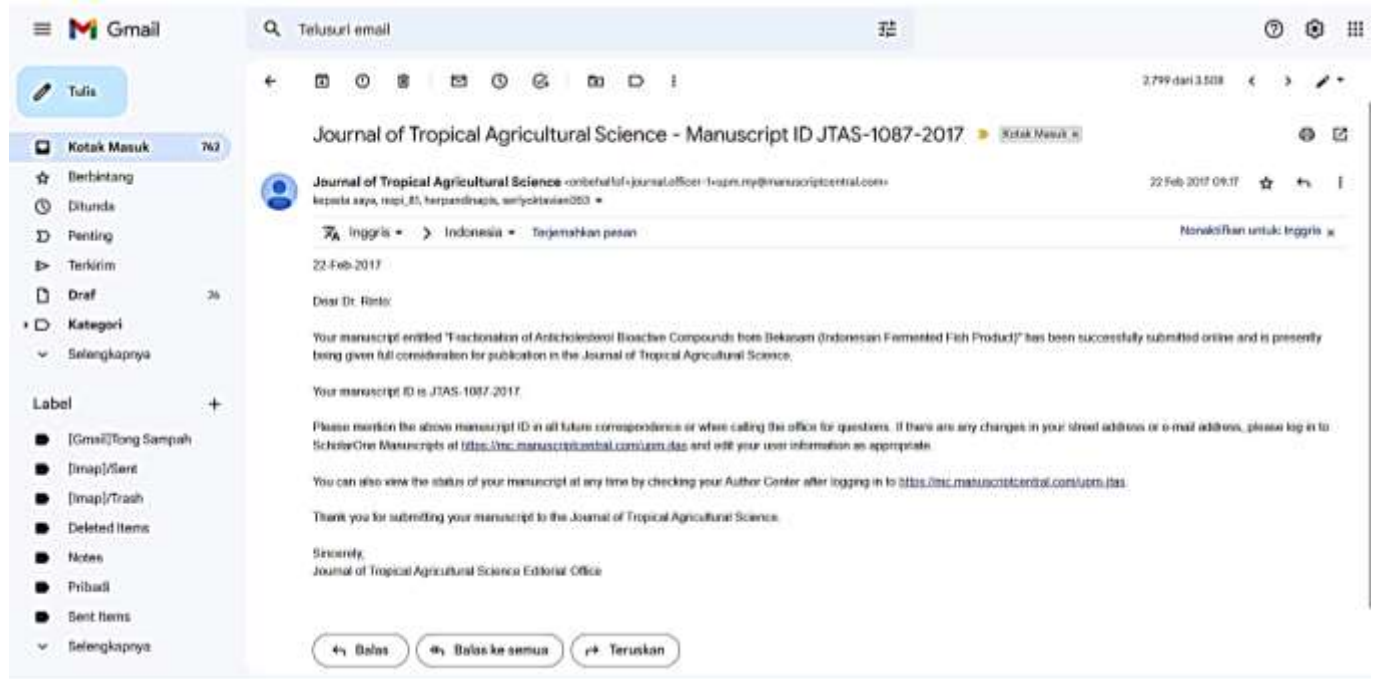
Volume 40 No. 3 Agustus 2017

Judul Artikel : Fractionation of Anticholesterol Bioactive Compounds from Bekasam
(Indonesian Fermented Fish Product)

Penulis : Rinto, Nopianti, R., Herpandi and Oktaviani, S.

No	Perihal	Tanggal
1	Bukti Konfirmasi Submit Artikel	22 Februari 2017
2	Bukti Konfirmasi Review Editorial	06 Maret 2017
3	Bukti Konfirmasi Final Review Editorial, Full Submitted dan Siap Direview	09 Maret 2017
4	Bukti Konfirmasi Hasil Review	11 April 2017
5	Bukti Konfirmasi Pernyataan Layak/memenuhi Syarat Publish	18 April 2017
4	Bukti Konfirmasi Accepted dan Rencana Publish	25 Mei 2017
5	Bukti Arikel Terbit Edisi 40 (3) Agustus Tahun 2017	Agustus 22017

1. Bukti Korespondensi Submitted dan Artikel yang Disubmit



The screenshot shows a Gmail interface with an email from the Journal of Tropical Agricultural Science. The email subject is "Journal of Tropical Agricultural Science - Manuscript ID JTAS-1087-2017". The sender is "Journal of Tropical Agricultural Science" with the email address "journaloffice@manuscriptcentral.com". The email is dated "22 Feb 2017 09:17". The content of the email is as follows:

Dear Dr. Rinto,

Your manuscript entitled "Fractionation of Anticholesterol Bioactive Compounds from Bekasin (Indonesian Fermented Fish Product)" has been successfully submitted online and is presently being given full consideration for publication in the Journal of Tropical Agricultural Science.

Your manuscript ID is JTAS-1087-2017.

Please mention the above manuscript ID in all future correspondence or when calling the office for questions. If there are any changes in your street address or e-mail address, please log in to ScholarOne Manuscripts at <https://mc.manuscriptcentral.com/jtas> and edit your user information as appropriate.

You can also view the status of your manuscript at any time by checking your Author Center after logging in to <https://mc.manuscriptcentral.com/jtas>.

Thank you for submitting your manuscript to the Journal of Tropical Agricultural Science.

Sincerely,
Journal of Tropical Agricultural Science Editorial Office

At the bottom of the email, there are three buttons: "Balas", "Balas ke semua", and "Teruskan".



Fractionation of Anticholesterol Bioactive Compounds from Bekasam (Indonesian Fermented Fish Product)

Journal:	<i>Journal of Tropical Agricultural Science</i>
Manuscript ID	JTAS-1087-2017
Manuscript Type:	Regular Article
Scope of the Journal:	Fisheries sciences < Fisheries sciences < AGRICULTURAL SCIENCES
Keywords:	
Abstract:	<p>The purpose of this research was to determine the bioactive peptide which had function as a HMG-CoA reductase inhibitor from bekasam extract. Steps taken for this research were the production of bekasam used salt (15%), rice (15%) and <i>Lactobacillus acidophilus</i> as a culture starter, extraction and fractionation of bekasam and further assayed their HMG-CoA reductase inhibition. The results showed that six fractions from bekasam extract had different inhibition activity to HMG-CoA reductase enzyme. In the fraction of bekasam extract without evaporation (F1) contained 3 peptides (peptide of 7.69 kD; 10.71 kD and 20.22 kD). Extract free supernatant fraction (F2) contained 4 peptides (peptide of 7.69 kD; 10.71 kD; 20.22 kD and 35.38 kD). Fractions of bekasam extract in the F3 contained 2 peptides (7.69 kD and 10.71 kD). Furthermore, fractionation in the F4 can separate only one peptide band with molecular weight 7.69 kD. In the F3 and F4 fraction were not discovered of peptides. F6 and F4 fractions had the higher inhibition fraction to HMG-CoA reductase activity (92.86%). There was peptide 7.69 kD in F4 fraction and lovastatin (893.84 ppm) in F6 fraction.</p>

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Dear Editor

We would like to propose publication of our manuscript entitle:

Fractionation of Anticholesterol Bioactive Compounds from Bekasam (Indonesian Fermented Fish Product)

in your journal as regular article.

This manuscript has not been published and is not under consideration for publication elsewhere. All authors have contributed in the planning, execution, analysis of this study and are in agreement with the content of the manuscript.

Our research revealed that *bekasam* (Indonesian fermented fish product) contain bioactive peptide which as a inhibitor of HMG CoA reductase, a key enzyme for cholesterol synthesis. The inhibition was significant, and found to resemble that of pravastatin, a well-known cholesterol lowering drug

This is the first report of peptide as potent inhibitors of HMG-CoA reductase originated from *bekasam*.

We hope that you find the manuscript interesting and suitable for publication. Thank you very much for your kind attention and consideration.

Best regards,

Dr. RINTO, S.Pi, M.P
(FIRST AUTHOR)

Corresponding Author:

Dr. Rinto, S.Pi, M.P

Department of Fisheries Product Technology, Faculty of Agricultural, Sriwijaya University,
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HP: +62858 3832 0730

Fractionation of Anticholesterol Bioactive Compounds from Bekasam
(Indonesian Fermented Fish Product)

Rinto*, Rodiana Nopianti, Herpandi, Sherly Oktaviani

Department of Fisheries Product Technology, Faculty of Agricultural, Sriwijaya University,
Indralaya, South Sumatera Indonesia 30862

Corresponding Author: rinto.unsri@gmail.com

Abstract

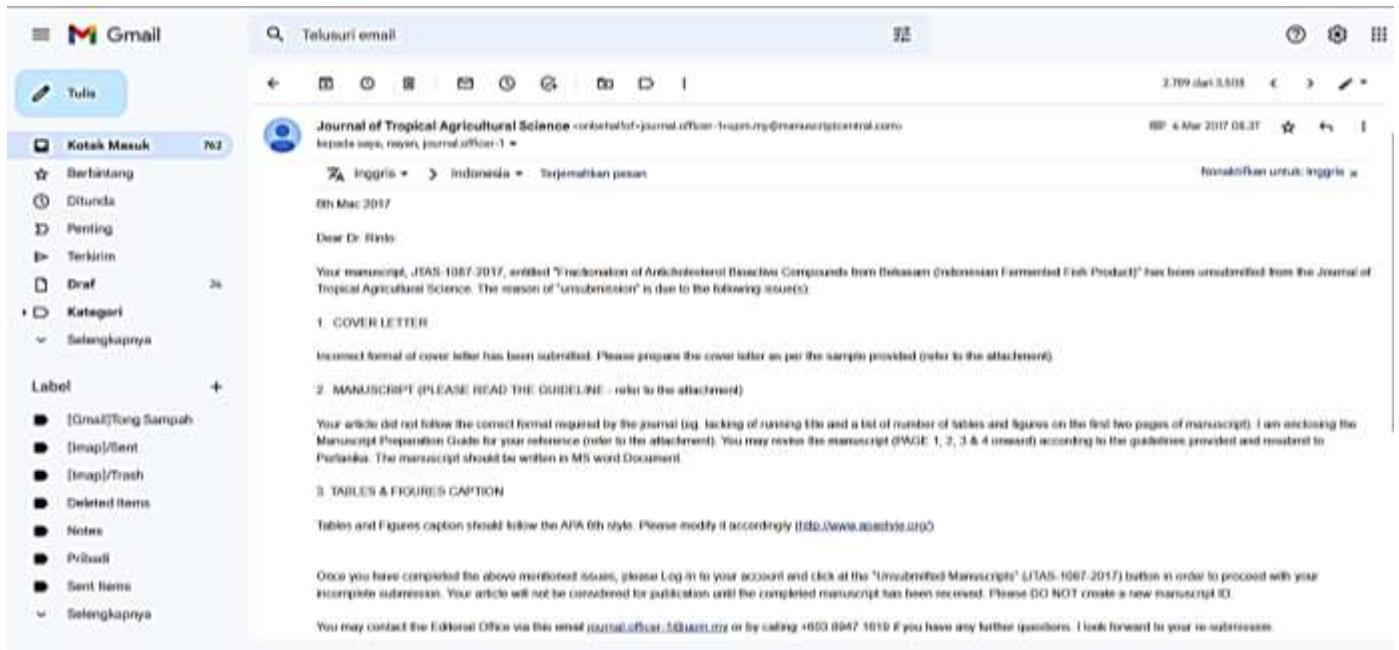
The purpose of this research was to determine the bioactive peptide which had function as a HMG-CoA reductase inhibitor from *bekasam* extract. Steps taken for this research were the production of *bekasam* used salt (15%), rice (15%) and *Lactobacillus acidophilus* as a culture starter, extraction and fractionation of *bekasam* and further assayed their HMG-CoA reductase inhibition. The results showed that six fractions from *bekasam* extract had different inhibition activity to HMG-CoA reductase enzyme. In the fraction of *bekasam* extract without evaporation (F1) contained 3 peptides (peptide of 7.69 kD; 10.71 kD and 20.22 kD). Extract free supernatant fraction (F2) contained 4 peptides (peptide of 7.69 kD; 10.71 kD; 20.22 kD and 35.38 kD). Fractions of *bekasam* extract in the F3 contained 2 peptides (7.69 kD and 10.71 kD). Furthermore, fractionation in the F4 can separate only one peptide band with molecular weight 7.69 kD. In the F3 and F4 fraction were not discovered of peptides. F6 and F4 fractions had the higher inhibition fraction to HMG-CoA reductase activity (92.86%). There was peptide 7.69 kD in F4 fraction and lovastatin (883.84 ppm) in F6 fraction.

Key words: *bekasam*, peptide 7.69 kD, anticholesterol, HMG-Coa reductase

Introduction

The 3-Hidroxy-3-Methylglutaryl-Coenzyme A Reductase (HMG-CoA reductase) enzyme is one of the enzyme which is a limiting factor to regulate cholesterol synthesis, especially in the formation mevalonic acid from Hidroxy Methylglutaryl-Coenzym A (HMG-CoA). The inhibition to HMG-CoA reductase enzyme can reduce cholesterol in the hyperlipidamia (Lyons and Harbinson, 2009; Rinto, 2016). Statin (compactin, pravastatin, lovastatin, simvastatin) and some peptides i.e peptide from herbal *Senna obtusifolia*, potato,

2. Bukti Korespondensi Review Editorial



The screenshot shows a Gmail interface with an email from the Journal of Tropical Agricultural Science. The email is dated 08 Mar 2017 and is addressed to 'Inggriz' in Indonesia. The subject is 'Terjemahkan pesan' (Translate message). The email content is as follows:

Journal of Tropical Agricultural Science <correspond-journal.officer-1@jtas.manuscriptcentral.com>
kepada saps, royer, journal.officer-1 *
08 Mar 2017
Dear Dr. Hinto:

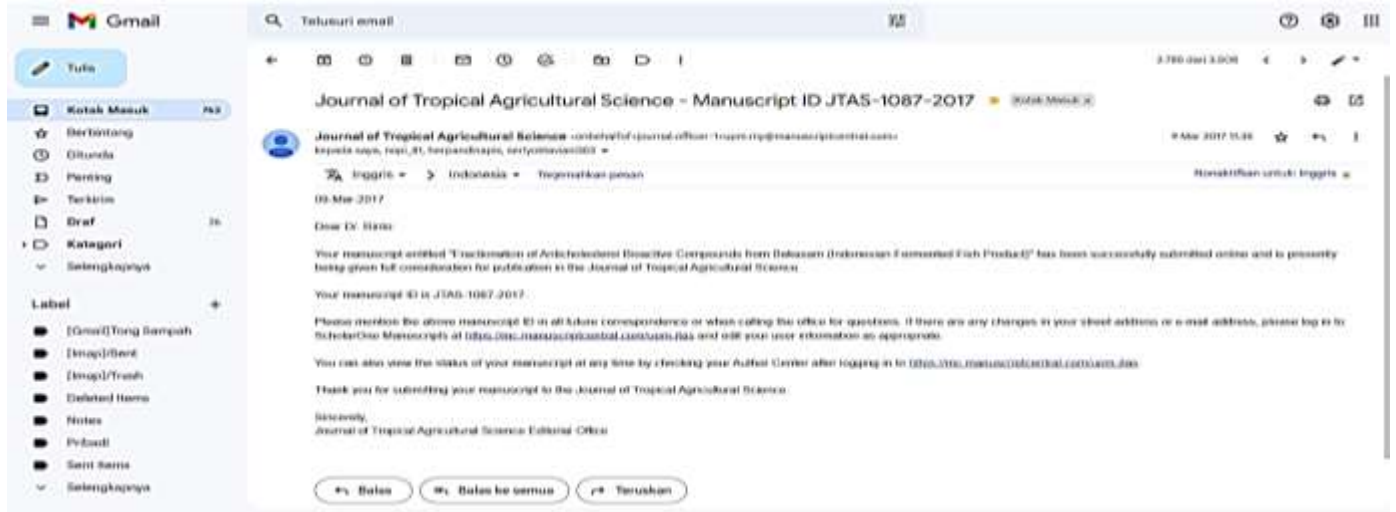
Your manuscript, JTAS-1067-2017, entitled "Fractionation of Anticholesterol Bioactive Compounds from Bekasam (Indonesian Fermented Fish Product)" has been unsubmitted from the Journal of Tropical Agricultural Science. The reason of "unsubmission" is due to the following issues:

1. COVER LETTER
Incorrect format of cover letter has been submitted. Please prepare the cover letter as per the sample provided (refer to the attachment).
2. MANUSCRIPT (PLEASE READ THE GUIDELINE - refer to the attachment)
Your article did not follow the correct format required by the journal (eg. lacking of running title and a list of number of tables and figures on the first two pages of manuscript). I am enclosing the Manuscript Preparation Guide for your reference (refer to the attachment). You may revise the manuscript (PAGE 1, 2, 3 & 4 onward) according to the guidelines provided and resubmit to Pustaka. The manuscript should be written in MS word Document.
3. TABLES & FIGURES CAPTION
Tables and Figures caption should follow the APA 6th style. Please modify it accordingly (<http://lib.umsida.ac.id>).

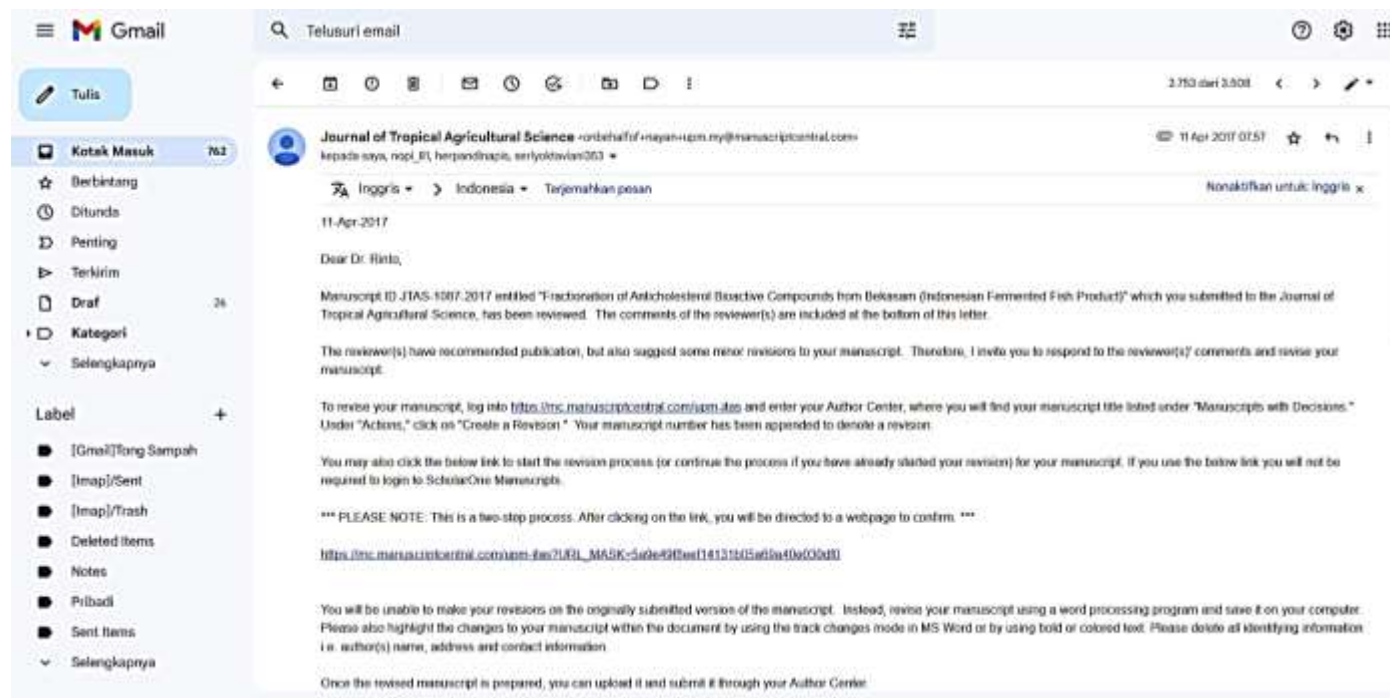
Once you have completed the above mentioned issues, please Log in to your account and click of the "Unsubmitted Manuscript" (JTAS-1067-2017) button in order to proceed with your incomplete submission. Your article will not be considered for publication until the completed manuscript has been received. Please DO NOT create a new manuscript ID.

You may contact the Editorial Office via the email journal.officer_1@jtas.mv or by calling +653 8947 1010 if you have any further questions. I look forward to your re-submission.

3. Bukti Korespondensi Final Review Editorial dan Full Submitted



4. Bukti Korespondensi Hasil Review



When submitting your revised manuscript, you will be able to respond to the comments made by the reviewer(s) in the space provided. You can use this space to document any changes you make to the original manuscript. In order to expedite the processing of the revised manuscript, please be as specific as possible in your response to the reviewer(s).

IMPORTANT: Your original files are available to you when you upload your revised manuscript. Please delete any redundant files before completing the submission.

Because we are trying to facilitate timely publication of manuscripts submitted to the Journal of Tropical Agricultural Science, your revised manuscript should be submitted by 11-May-2017. If it is not possible for you to submit your revision by this date, we may have to consider your paper as a new submission.

Once again, thank you for submitting your manuscript to the Journal of Tropical Agricultural Science and I look forward to receiving your revision.

Sincerely,
Dr. Nayan KANWAL
Chief Executive Editor, Journal of Tropical Agricultural Science
nayan@upm.my, nayan.kanwal@yahoo.com

Reviewer(s)' Comments to Author:

Reviewer: 1

Comments to the Corresponding Author
May kindly incorporate the minor suggestions indicated. The comments are made in the pdf file attached.

Reviewer: 2

Comments to the Corresponding Author
Interesting paper.
However, please clarify in methodology how non evaporation fraction (F1) and fractionated extract with free supernatant (F2) were prepared. Explain why lovastatin only present in 1 sample onlt?



Fractionation of Anticholesterol Bioactive Compounds from Bekasam (Indonesian Fermented Fish Product)

Journal:	<i>Journal of Tropical Agricultural Science</i>
Manuscript ID	JTAS-1087-2017
Manuscript Type:	Regular Article
Scope of the Journal:	Fisheries sciences < Fisheries sciences < AGRICULTURAL SCIENCES
Keywords:	bekasam, peptide 7.69 kD, anticholesterol, HMG-Coa reductase
Abstract:	<p>The purpose of this research was to determine the bioactive peptide which had function as a HMG-CoA reductase inhibitor from bekasam extract. Steps taken for this research were the production of bekasam used salt (15%), rice (15%) and <i>Lactobacillus acidophilus</i> as a culture starter, extraction and fractionation of bekasam and further assayed their HMG-CoA reductase inhibition. The results showed that six fractions from bekasam extract had different inhibition activity to HMG-CoA reductase enzyme. In the fraction of bekasam extract without evaporation (F1) contained 3 peptides (peptide of 7.69 kD; 10.71 kD and 20.22 kD). Extract free supernatant fraction (F2) contained 4 peptides (peptide of 7.69 kD; 10.71 kD; 20.22 kD and 35.38 kD). Fractions of bekasam extract in the F3 contained 2 peptides (7.69 kD and 10.71 kD). Furthermore, fractionation in the F4 can separate only one peptide band with molecular weight 7.69 kD. In the F3 and F4 fraction were not discovered of peptides. F6 and F4 fractions had the higher inhibition fraction to HMG-CoA reductase activity (92.86%). There was peptide 7.69 kD in F4 fraction and lovastatin (148.30 ppm) in F6 fraction.</p>

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Running Title:

Anticholesterol Bioactive Compounds from *Bekasam*

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Full Title:

Fractionation of Anticholesterol Bioactive Compounds from Bekasam (Indonesian Fermented Fish Product)

A list of number of black and white figure and table:

1. Table 1. *The yield of bekasam fraction, lovastatin content, peptides and inhibition of bekasam extract fraction for HMG-CoA reductase enzyme activity.*
2. *Figure 1. Peptides profile of bekasam extract (F1: non evaporation bekasam extract; F2: extract free supernatant; F3: fraction of bekasam extract with molecule weight > 10 kD; F4: fraction of bekasam extract with molecule weight 3-10 kD; F5: fraction of bekasam extract with molecule weight 1-3 kD and F6: fraction of bekasam extract with molecule weight < 1 kD)*

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60**ABSTRACT**

 purpose of this research was to determine the bioactive peptide which had function as a HMG-CoA reductase inhibitor from *bekasam* extract. Steps taken for this research were the production of *bekasam* used salt (15%), rice (15%) and *Lactobacillus acidophilus* as a culture starter, extraction and fractionation of *bekasam* and further assayed their HMG-CoA reductase inhibition. The results showed that six fractions from *bekasam* extract had different inhibition activity to HMG-CoA reductase enzyme. In the fraction of *bekasam* extract without evaporation (F1) contained 3 peptides (peptide of 7.69 kD; 10.71 kD and 20.22 kD). Extract free supernatant fraction (F2) contained 4 peptides (peptide of 7.69 kD; 10.71 kD; 20.22 kD and 35.38 kD). Fractions of *bekasam* extract in the F3 contained 2 peptides (7.69 kD and 10.71 kD). Furthermore, fractionation in the F4 can separate only one peptide band with molecular weight 7.69 kD. In the F3 and F4 fraction were not discovered of peptides. F6 and F4 fractions had the higher inhibition fraction to HMG-CoA reductase activity (92.86%). There was peptide 7.69 kD in F4 fraction and lovastatin (148.30 ppm) in F6 fraction.

Key words: *bekasam*, peptide 7.69 kD, anticholesterol, HMG-Coa reductase

Introduction

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Some fermented fish product can block activity of HMG-CoA reductase enzyme. *Narezushi* and *Heshiko* extract, those are Japanese fermented fish products, contain protein fraction (peptides) and non protein fraction which have hight inhibition for HMG-CoA reductase (Itou & Akahane, 2009; 2010). *Bekasam* extract (Indonesian fermented fish product) also had high inhibition for this enzyme (Rinto *et al.*, 2015a).

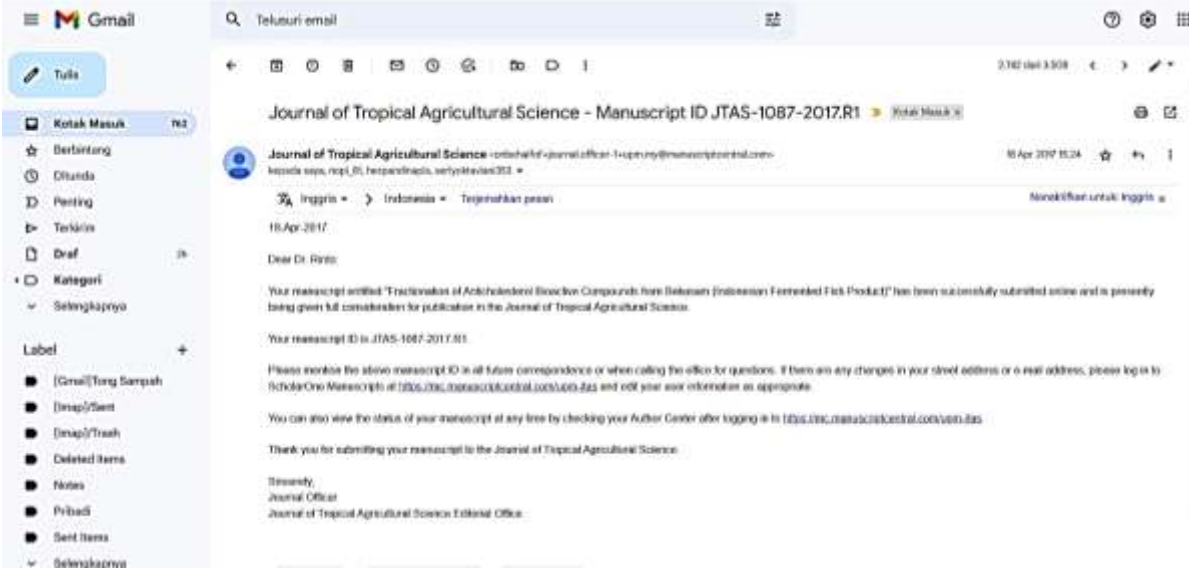
Peptide fractions from bekasam which have activity to inhibit HMG-CoA reductase have not been well studied and reported. In this research we studied the fractionation of bekasam extract and the content of bioactive peptides that had high inhibition activity to HMG-CoA reductase. In addition to bioactive peptides, we identified peptide profiles and amino acid squencing was done for knowing type of peptide from bekasam that function as an inhibitor HMG-CoA reductase.

Materials and Methods

Materials

Minnows/carps fish (*Rasbora argyrotenia*) was obtained from Indralaya traditional market, South Sumatera, Indonesia. De Man Rogosa Sharpe (MRS) broth medium were purchased from Oxoid (England). Lovastatin, HMG CoA reductase kit assay, were purchased from Sigma Aldrich (USA). A standard molecular weight protein marker (Low Range Protein Ladder) were purchased from Thermo Scientific (Lithuania). *Lactobacillus acidophilus* was screened and isolated from *bekasam*. Bacteria identification had been done previously by

5. Bukti Korespondensi Pernyataan Artikel Layak Publikasi



6. Bukti Korespondensi Accepted dan Info Rencana Publikasi

The screenshot shows a Gmail interface with a sidebar on the left containing folders like 'Kotak Masuk', 'Berbintang', 'Ditunda', 'Penting', 'Terakhir', 'Draf', 'Kategori', and 'Label'. The main content area displays an email from 'Dr. Nayan KANWAL OL-4' dated '25 Mei 2017 15:42'. The email is in Indonesian and discusses the acceptance of a manuscript titled 'Fractionation of Anticholesterol Bioactive Compounds from Bekasam (Indonesian Fermented Fish Product)'. The email text is as follows:

Dear Author(s),

I am writing to you in reference to an article entitled, "Fractionation of Anticholesterol Bioactive Compounds from Bekasam (Indonesian Fermented Fish Product)" author(s): *Rina, Napient, R., Heryanti and Oktavia, S.* submitted to *Pertanika* on 24 March 2017 for intended publication in *JTAS*.

Your paper has been anonymously peer-reviewed by two to three referees competent in the specialized areas appropriate to your manuscript independently evaluating the scientific quality of the manuscript.

I am pleased to tell you that based on the clarity, technical approach and scientific validity presented, your paper **has been accepted** by the Editorial Board on **27 April 2017**, and is now confirmed scheduled for publication in *JST* Vol. **40 (3) Aug. 2017**.

Henceforth, your manuscript will be undergoing the publication process. You shall receive the proof of your manuscript from our Publisher, UPM Press depending upon the issue in which your article would be published. Please review the proof carefully for accuracy and consistency before returning it to the Press.

I thank you for considering *Pertanika* as your preferred Journal.

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Our Ref.: UPM/TNCPI/UPMP-JD/JTAS/1087/2017/LTR06a
Date: 25 MAY 2017

Rinto
Department of Fisheries Product Technology
Faculty of Agricultural
Sriwijaya University
Indralaya, South Sumatera
30862 Indonesia

Dear Author,

ACCEPTANCE OF MANUSCRIPT ID. JTAS-1087-2017 FOR PUBLICATION

I am writing to you in reference to an article entitled, "**Fractionation of Anticholesterol Bioactive Compounds from Bekasam (Indonesian Fermented Fish Product)**" author(s): *Rinto, Nopianti, R., Herpandi and Oktaviani, S.* submitted to *Pertanika* on 24 March 2017 for intended publication in JTAS.

Your paper has been anonymously peer-reviewed by two to three referees competent in the specialized areas appropriate to your manuscript independently evaluating the scientific quality of the manuscript.

I am pleased to tell you that based on the clarity, technical approach and scientific validity presented; your paper **has been accepted** by the Editorial Board on 27 April 2017, and is now confirmed scheduled for publication in JST Vol. **40 (3) Aug. 2017**.

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I thank you for considering *Pertanika* as your preferred Journal.

Sincerely,



DR NAYAN DEEP S. KANWAL, FRSA, ABIM, AMIS, Ph.D.
Chief Executive Editor (*Pertanika* Journals)
HEAD, Journal Division

C.C.

Prof Dr Mohd Zamri Saad, *Editor-in-Chief*
Journal of Tropical Agricultural Science (JTAS)
Faculty of Veterinary Medicine, UPM



For queries or more information, please address your correspondence to the **Chief Executive Editor**.
Tel: +603-8947-1622, (nayan@upm.my)

7. Bukti Artikel Terbit Volume 40 (3) Agustus 2017

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Fractionation of Anticholesterol Bioactive Compounds from *Bekasam* (Indonesian Fermented Fish Product)

Rinto, Nopianti, R., Herpandi and Oktaviani, S.

Pertanika Journal of Tropical Agricultural Science, Volume 40, Issue 3, August 2017

Keywords: *Bekasam*, peptide 7.69 kD, anticholesterol, HMG-Coa reductase
Published on: 19 Jul 2017

Abstract

Bekasam functions as an inhibitor of HMG-CoA reductase. Fractionation was required to determine the bioactive peptide which functions as a HMG-CoA reductase inhibitor. Steps taken for this research were the production of *Bekasam* used salt (15%), rice (15%) and *Lactobacillus acidophilus* as a culture starter, extraction and fractionation of *Bekasam* to assay its HMG-CoA reductase inhibition. The results showed that six fractions from *Bekasam* extract had different inhibition activity. The fraction of *Bekasam* extract without evaporation (F1) contained 3 peptides (peptide of 7.69 kD, 10.71 kD, and 20.22 kD). Extract free supernatant fraction (F2) contained 4 peptides

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