Editorial in Chief

Name Prof. Sutiman Bambang Sumitro, SU., D.Sc.
Position Editor-in-Chief Berkala Penelitian Hayati Journal of Biological Researches and Professor
Office Address Department of Biology Faculty of Mathematics and Natural Sciences, Brawijaya University, Malang, 65145, East Java, Indonesia.
E - Mail sutiman@ub.ac.id

For more information download this pdf (http://www.berkalahayati.org/files/editorial/91.pdf)

Managing Editor

Name Irfan Mustafa, S.Si, M.Si, Ph.D
Position Managing Editor Berkala Penelitian Hayati Journal of Biological Researches Indonesia and Lecturer
Office Address Department of Biology, Faculty of Mathematics and Natural Science, Brawijaya University, Malang, East Java, Indonesia
E - Mail irfan@ub.ac.id

For more information download this pdf

Name Wulida Khoirunnisa, S.Si
Position Managing Editor, Berkala Penelitian Hayati Journal of Biological Researches Indonesia
Office Address Jalan Surakarta 5, Malang 65114, East Java, Indonesia
E - Mail wilda.nisa@gmail.com

For more information download this pdf (http://www.berkalahayati.org/files/editorial/22.pdf)

Name Hadiatullah, S.Si
Position Managing Editor, Berkala Penelitian Hayati Journal of Biological Researches Indonesia
Office Address Jalan Surakarta 5, Malang 65114, East Java, Indonesia
E - Mail hadiatullah93@yahoo.co.id

For more information download this pdf (http://www.berkalahayati.org/)

Editorial Member

Name Dr. Bagyo Yanuwiadi
Date of Birth Jan 18,1960
Position Editorial Member Berkala Penelitian Hayati Journal of Biological Researches and Associate Professor
Office Address Department of Biology Faculty of Mathematics and Natural Sciences, Brawijaya University, Malang, 65145, East Java, Indonesia.
E - Mail yanuwiadi@ub.ac.id

For more information download this pdf (http://www.berkalahayati.org/files/editorial/8.pdf)

Name	Prof. Dr. Bambang Irawan, M.Sc
Date of Birth	Apr 05,1955
Position	Editorial Member Berkala Penelitian Hayati Journal of Biological Researches and Professor
Office Address	Biology Department, Faculty of Science and Technology, Airlangga University, Jalan Mulyorejo Kampus C Surabaya 60115, Indonesia
E - Mail	bamir1955@yahoo.co.id

For more information download this pdf (http://www.berkalahayati.org/files/editorial/11.pdf)

Name	Dr. Akira Kikuchi
Date of Birth	Aug 02,1971
Position	Editorial Member Berkala Penelitian Hayati Journal of Biological Researches and Associate Professor
Office Address	Department Environmental Technology, and Institute of Environmental and Water Resource Management (IPASA), Universiti Technology Malaysia. 81310, Skudai, Johor, Malaysia.
E - Mail	akira@utm.my

For more information download this pdf (http://www.berkalahayati.org/files/editorial/15.pdf)

Name	Widodo, S.Si, M. Si, Ph. D Med Sc.
Date of Birth	Aug 11,1973
Position	Editorial Member Berkala Penelitian Hayati Journal of Biological Researches and Associate Professor
Office Address	Department of Biology Faculty of Mathematics and Natural Sciences, Brawijaya University, Malang, 65145, Indonesia.
E - Mail	widodo@ub.ac.id

For more information download this pdf (http://www.berkalahayati.org/files/editorial/16.pdf)

Name	Prof. Fatchiyah,Ph.D.
Date of Birth	Nov 27,1963
Position	Editorial Member Berkala Penelitian Hayati Journal of Biological Researches, Professor and Director of Lab Biosains UB
Office Address	Department of Biology Faculty of Mathematics and Natural Sciences Brawijaya University, Malang 65145, East Java, Indonesia
E - Mail	fatchiya@ub.ac.id; fatchiya@gmail.com

For more information download this pdf (http://www.berkalahayati.org/files/editorial/17.pdf)

Name	Prof. Intan Ahmad, Ph.D.
Date of Birth	May 01,1958
Position	Editorial Member Berkala Penelitian Hayati Journal of Biological Researches, Professor
Office Address	School of Life Sciences and Technology, Bandung Institute of Technology, Jalan Dipati Ukur 4 Bandung, Indonesia
E - Mail	intan@sith.itb.ac.id

For more information download this pdf (http://www.berkalahayati.org/files/editorial/51.pdf)

Name	Dr. Endang Semiarti, M.S., M.Sc.
Date of Birth	Nov 23,1962
Position	Editorial Member Berkala Penelitian Hayati Journal of Biological Researches and Associate Professor
Office Address	Faculty of Biology, Gadjah Mada University, Yogyakarta, Indonesia
E - Mail	endsemi@ugm.ac.id

For more information download this pdf (http://www.berkalahayati.org/files/editorial/93.pdf)

Indexing

Clarivate Analytics (https://mjl.clarivate.com/search-results)

DOAJ DIRECTORY OF OPEN ACCESS JOURNALS (https://doaj.org/toc/2337-389X?source=%7B%22query%22%3A%7B%22filtered%22%3A%7B%22filter%22%3A%7B%22bool%22%3A%7B%22must%22%3A%5B%7B%22term%22%3A%7B%22index.issn.e389X%22%7D%7D%2C%7B%22term%22%3A%7B%22_type%22%3A%22article%22%7D%7D%5D%7D%)

EBSCOhost (https://www.ebscohost.com/titleLists/a9h-journals.htm)

sinta Science and Technology Index (http://sinta.ristekbrin.go.id/journals/detail?id=930)

Crossref (https://search.crossref.org/?q=journal+of+biological+researches&type=Journal+Article&publication=Journal+of+Biological+Researches)

Google scholar (https://scholar.google.com/citations?user=ErzIKbMAAAAJ&hl=en)

academia.edu follow research (https://berkalahayati.academia.edu/berkalahayati/Journal)

Make a Submission (http://www.berkalahayati.org/index.php/jurnal/about/submissions)

LANGUAGE

- Bahasa Indonesia (http://www.berkalahayati.org/index.php/jurnal/user/setLocale/id_ID?source=%2Findex.php%2Fjurnal%2Fabout%2FeditorialTeam)
- English (http://www.berkalahayati.org/index.php/jurnal/user/setLocale/en_US?source=%2Findex.php%2Fjurnal%2Fabout%2FeditorialTeam)

INFORMATION

- For Readers (http://www.berkalahayati.org/index.php/jurnal/information/readers)
- For Authors (http://www.berkalahayati.org/index.php/jurnal/information/authors)
- For Librarians (http://www.berkalahayati.org/index.php/jurnal/information/librarians)

Articles

Indexing

Clarivate Analytics (https://mjl.clarivate.com/search-results)

DOAJ DIRECTORY OF OPEN ACCESS JOURNALS (https://doaj.org/toc/2337-389X?source=%7B%22query%22%3A%7B%22filtered%22%3A%7B%22filter%22%3A%7B%22bool%22%3A%7B%22must%22%3A%5B%7B%22term%22%3A%7B%22index.issn.e389X%22%7D%7D%2C%7B%22term%22%3A%7B%22_type%22%3A%22article%22%7D%7D%5D%7D%)

Berkala **PENELITIAN HAYATI**

ISSN: 08526834 | E-ISSN:2337-389X

Volume 26| No. 1| December| 2020

Original Article

Inhibitory activity of fermentation filtrate of red passion fruit pulp (*Passiflora edulis* sims.) against *Escherichia coli* extended-spectrum beta-lactamase (ESBL) and methicillin resistant *staphylococcus aureus* (MRSA)

Iif Hanifa Nurrosyidah[1,3], Ni Made Mertaniasih[2], Isnaeni[1*]

[1]Department of Pharmaceutical Chemistry, Universitas Airlangga, Mulyorejo, Surabaya 60115, Indonesia

[2]Department of Microbiology, Faculty of Medicine, Universitas Airlangga, Tambaksari, Surabaya 60268, Indonesia

[3]Doctoral Program of Pharmacy, Faculty of Pharmacy, Universitas Airlangga, Mulyorejo, Surabaya 60115, Indonesia

Abstract

This study aims to determine the minimum inhibitory concentration (MIC) and bactericidal concentration (MBC) of the fermentation filtrate (FF) on red passion fruit pulp (*Passiflora edulis* Sims.) against *Escherichia coli* Extended Spectrum Beta Lactamase (ESBL) and Methicillin Resistant *Staphylococcus aureus* (MRSA). The method used was the fermentation of red passion fruit pulp for 24 h using De Man Rogosa Sharpe Broth (MRS-broth) media, and the result showed that the FF of red passion fruit pulp made a dilution series concentration of 50%, 25%, 12.5%, 6.25%. Considering this result, the MIC FF of red passion fruit cells against ESBL and MRSA has a 25% dilution concentration, while MBC has a 50% dilution concentration. This shows that red passion fruit has the potential to be developed as antibacterial material, especially to fight bacteria that are already resistant.

Keywords: Inhibitory, red passion fruit, fermentation filtrate, ESBL, MRSA

Received: 21 August 2020 Revised: 19 November 2020 Accepted: 27 November 2020

Introduction

Infectious diseases are still a major health problem in developing tropical countries like Indonesia, and death caused by infectious diseases is about 51% (Sardjono and Le, 2007). Many bacteria are resistant to some antibiotics, such as Extended Spectrum Beta Lactamase (ESBL) and Methicillin Resistant *Staphylococcus aureus* (MRSA), therefore, irrational use of antibiotics worsens this condition. Bacterial resistance to antibiotics has become a serious global problem. Around 440 thousand new cases of MDR-TB (Tuberculosis-Multi-Drug Resistance) are reported every year, thereby causing 150 thousand deaths worldwide (WHO, 2014).

The use of natural ingredients as raw materials in drug development is increasingly demanded by the pharmaceutical industry community. Meanwhile, according to the World Health Organization (WHO) data, about 80% of the world's population uses herbal-based products (Djorjevic, 2017). Passion fruit (*Passiflora edulis* Sims.), a member of the Passifloraceae family, has more than 500 species (Duarte and Robert, 2015), it was originated from Brazil and has spread to other countries in Asia, Australia, Africa, India, South America, and the Caribbean. Furthermore, passion fruit has other variants which are identified by the color of the fruit (Singh and Debojyuti, 2013) such as yellow (*P. edulis* var. Flavicarpa), purple (*P. edulis* var. Edulis), and orange (*P. edulis* var. Caerulea). Passion fruit contains phytochemical compounds of glycosides including flavonoids luteolin-6-C-chinovoside, luteolin-6-C-fucoside, cyanogenic glycosides passibiflorin, epipassibiflorin, passicapsin, passicoriacin, routine-cipassicogen, epipassicogen epitetraphilin B, amygdalin, prunacin, triterpenoid glycosides, and salicylic glycosides. Other chemical compounds such as harman alkaloid b-carbolin, harmine, harmaline and harmalol, phenol, carotene, and g-lactone are also found in passion (Bernes et al., 2007). Therefore, passion fruit has high nutritional value with multimineral content such as magnesium and phosphorus, various vitamins, as well as high carbohydrate and water (Zibadi et al., 2020).

The Yellow passion fruit pulp extract has been investigated for its antibacterial activity against *Streptococcus mutans*, and its most effective concentration was 40% to 45%. The fermentation filtrate (FF) of yellow passion fruit (*P. edulis* forma *Flavicarpa sims*.) fermented using de Man-Rogosa Sharpe Broth (MRS) media has been reported to have antibacterial activity against *Staphylococcus* spp., MRSA, and *Escherichia coli* ESBL. Previous studies related to the isolation of probiotic bacteria from purple passion fruit showed that passion fruit contains Probiotics *Lactobacillus bulgaricus*, and *Lactobacillus heterohiochii* which produces exopolysaccharides that inhibits the attachment of pathogenic bacteria (Zahro, 2014).

* Corresponding Author:
Isnaeni
Department of Pharmaceutical Chemistry, Universitas Airlangga, Mulyorejo, Surabaya 60115, Indonesia
Phone: (031) 8955989 Fax: (031) 5036779
e-mail: isnaeni@ff.unair.ac.id

Methods

Plant source and determination

The red passion fruits were freshly collected from the local farm in Sidoarjo, on May 2020. It plant was

http://dx.doi.org/10.23869/bphjbr.26.1.20204

determined based on the taxonomy character of leaf, flower, fruit, and steam plant as well as identified as *Passiflora edulis* Sims. by Herbarium Malangensis, Universitas Negeri Malang.

Preparation of fermentation media

The MRS broth was prepared by dissolving 52.2 g of MRS broth powder into 1 L of purified water. Also, sterilization was performed by autoclaving for 15 min at 121ºC. Nutrient agar (NA) media was prepared by dissolving 20.0 g of the NA powder into 1 L of purified water, and it was further heated in boiling water with continuous stirring to completely dissolve all the powder, and a consistent yellowish liquid was achieved by pouring 10 mL of the mixture into a test tubes using syringe while it is still warm and in liquid form. The test tubes then need to be plugged with cotton and autoclaved for 15 min at 121ºC.

Sample preparation, fermentation, and characterization

The passion fruits were washed and dried before being divided into two parts and the 5 g of fruit pulps was weighed and put into 50 mL of MRS broth media to be fermented with a rotary shaker at 150 rpm, 37ºC for 24 h. After 24 h of fermentation the fermentation broth was removed, centrifuged and the supernatant was collected for characterization.

Determination of total plate count (TPC)

The supernatant was then serially diluted 1:10 to 10^7 using sterile normal saline solution. Each of the serial dilution was inoculated on the MRS agar (Oxoid, UK), and incubated at 37ºC for 24 h. Furthermore, cell growth was observed and the plating colonies were counted using a bacteria colony counter.

Inoculum preparation

The selected strain of bacteria was transferred aseptically to sterile saline water, vortexed and then the turbidity was measured using a spectrophotometer against the sterile saline water to obtain 25% turbidity or optical density of 25% transmittance (about 10^9 CFU/mL of bacteria) at 580 nm (Safarini et al., 2020).

Antibacterial activity test of ff red passion fruit pulp through MIC and MBC determination

This research used agar dilution technique, in which the FF of red passion fruit pulp according to dilution (50%, 25%, 12.5%, 6.25%) was added to agar, hence a seeding that matches the amount of dilution plus one seed was required. It was used as a control without adding FF of red passion fruit pulp, and one seed for positive control with Meropenem (25 µL/mL) and then incubated overnight at 37°C. The lowest concentration of FF of red passion fruit pulp that inhibits bacterial growth is the MIC. Therefore, the minimum concentration of antibiotics that kills bacteria/minimum bactericidal concentration (MBC) is determined by planting bacteria in liquid seedlings which are used for MIC when there is no further growth in agar (Soleha, 2015).

Results

Red passion fruit (*P. edulis* Sims.), known as sour passion fruit, is one of the species of passion fruit and belongs to the family of *Passifloraceae*. This species is unique and has two different performances namely purple skin (growing in subtropical and tropical highlands) and red skin (growing in lowland tropics) (Karsinah and Mansur, 2010). In this study, the red passion fruits (Fig. 1) from a local farm in Sidoarjo (East Java) were used.

Figure 1. Red Passion Fruit (*Passiflora edulis* Sims).

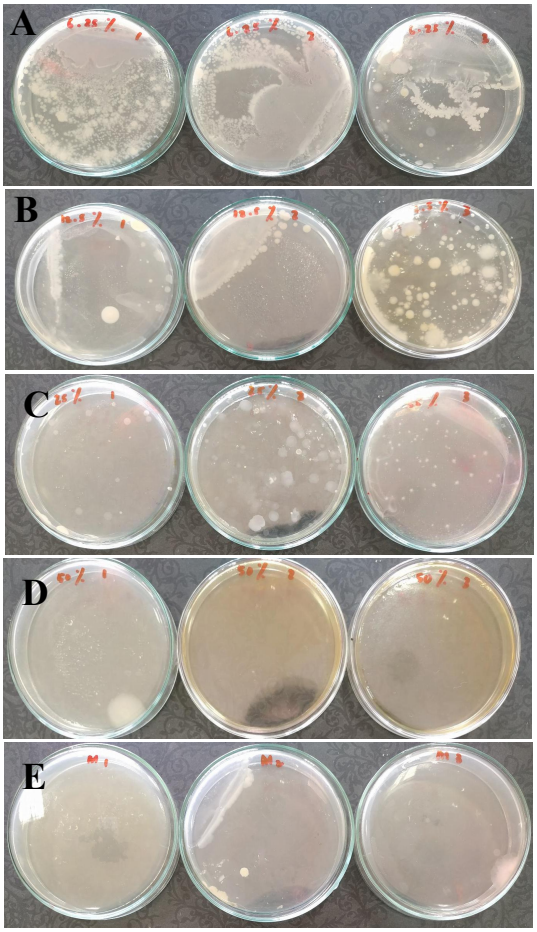

Figure 2. *E. coli* ESBL in the 6.25% Cell-Free Fermentation Supernatant (FF) of red passion fruit (*Passiflora edulis* Sims.) in de Man-Rogosa Sharpe agar (MRS-agar) Media, (a), *E. coli* ESBL in the 12.5% FF of red passion fruit (b), *E. coli* ESBL in the 25% FF of red passion fruit (c), *E. coli* ESBL in the 50% FF of red passion fruit (d), *E.coli* ESBL with 25 µg/mL of meropenem (e)

Based on the results of this research that has been investigated by FF of red passion fruit against *E. coli* ESBL and MRSA with MIC, the dilution concentration was 25%, while minimum bactericidal concentration (MBC) was 50% dilution concentration. The FF of red passion fruit has been shown to inhibit the growth of *E. coli* ESBL and MRSA better than meropenem (Fig. 2 and Fig. 3), where at the MIC of meropenem MRSA growth was still visible.

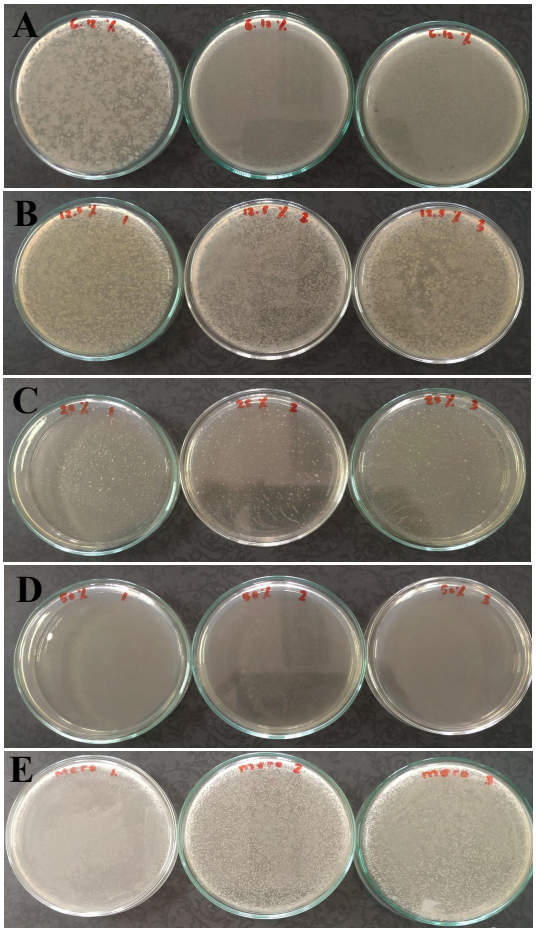

Figure 3. Methicillin-resistant *Staphylococcus aureus* (MRSA) in the 6.25% Cell-Free Fermentation Supernatant (FF) of red passion fruit (*Passiflora edulis* Sims.) in de Man-Rogosa Sharpe Agar (MRS-agar) Media (a), MRSA in the 12, 5% FF of red passion fruit (b), MRSA in the 25% FF of red passion fruit (c), MRSA in the 50% FF of red passion fruit (d), MRSA with 25 µg/mL of meropenem (e).

Discussion

P. edulis is a native fruit from Brazil, it has several common names, such as sour passion fruit, yellow passion fruit, black passion fruit, and purple passion fruit, and it presents a wide variability with the different rind colors of its fruits (Bernacci et al., 2008).Passion fruit has many health benefits because its nutritional content. Authentic passion fruit has a sour taste so it's rarely used directly and only made as a beverage ingredient. Though passion fruit is a raw material that produces good citric acid the good one since it contains citric acid in high concentration. The acidity of passion fruit citrate ranges from 2.4-4.8%. Therefore, the citric acid is obtained by fermentation, and it is a weak organic acid found in the leaves and fruit of certain herbs. This compound is a good natural preservative that is used to regulate the acidity of various processed food and soft drink (Karsinah and Mansur, 2010). Therefore, this compound is thought to provide antibacterial activity from FF of red passion fruit against *E. coli* ESBL and MRSA.

In addition, red passion fruit contains probiotics (Nurrosyidah et al., 2020), which presumably also provide an antibacterial activity against *E. coli* ESBL and MRSA. Further studies related to the isolation of probiotic bacteria from purple passion fruit showed that passion fruit contains Probiotics *Lactobacillus bulgaricus* and *Lactobacillus heterohiochii* which produce exopolysaccharides that inhibits the attachment of pathogenic bacteria (Zahro, 2004). It is supported by the fermentation of probiotic bacteria from the fruit to produce organic acids that further strengthen its antibacterial activity against *E. coli* ESBL and MRSA, since the secondary metabolite content of red passion fruit has antibacterial potential.

In conclusion The MIC of red passion fruit fermentation filtrate against *E. coli* ESBL and MRSA was 25% dilution concentration, while MBC was 50% dilution concentration. This showed that red passion fruit has the potential to be developed as a candidate of antibacterial material, especially to overcome resistant bacteria.

Acknowledgement

This scientific paper was presented at the Third International I Conference on Agromedicine & Tropical Diseases (ICATD) on September 12-13, 2020 at Jember University, Jember, East Java, Indonesia.

References

Barnes, J., Anderson, L., Phillipson, D., Zibadi, S., & Ronald, R. W. (2007). Passion fruit *Passiflora edulis*. *Evidence-Based Integrative Medicine, 1*(3), *183-187.*

Bernacci, L. S., Soares-Scott, M. D., Junqueira, N . T. V., Passos, I. R. D. S., & Meletti, L. M. M. (2008). *Passiflora edulis* Sims: the correct taxonomic way to cite the yellow passion fruit (and of others colors). *Revista Brasileira de fruticultura, 30*(2), 566-576.

Djordjevic, S. M. (2017). From Medicinal Plant Raw Material to Herbal Remedies. IntechOpen, London.

Duarte, O., & Robert, P. (2015). Exotic Fruits and Nuts of the New World. CABI, Lima.

Nurrosyidah, I. H., Isnaeni, I., & Mertaniasih, N. M. (2020). Potential probiotic from indigenous Indonesian red passion fruit (*Passiflora edulis* Sims). *Systematic Reviews in Pharmacy*, *11*(8), 123-130.

Sardjono, T. W., & Le, F. (2007). Malaria, Mekanisme Terjadinya Penyakit Dan Pedoman Penanganannya. Malang: Parasite Laboratory of Faculty of Medicine, Universitas Brawijaya.

Safarini, M., Rosyidah, I. H., Mertaniasih, N. M., Hamzah, M. N. S. B., Novianti, K. A., Primaharinastiti, R., & Isnaeni. (2020). In vitro antibacterial activity of cell free fermentation supernatant of *Passiflora edulis* form a flavicarpa Sims, fruit fermented by de man, rogosa and sharp media. *Jordan Journal Of Biological Sciences*, *13*(4), in press.

Singh, S., & Debojyoti, D. (2013). Passion fruit: a fetched passion for dentists. *International Journal of Pharmaceutical Sciences and Research, 4*(2), 754-75

Soleha, T. U. (2015). Uji kepekaan terhadap antibiotik. *Juke Unila, 5*(9), 119-123.

Surest, A. H., Redho, O., and Nabilla, M. A.. (2013). Fermentasi buah markisa (Passiflora) menjadi asam sitrat. *Jurnal Teknik Kimia, 19*(3), 1-7

World Health Organization. (2014). Antimicrobial Resistance: Global Report on Surveillance. Geneva: World Health Organization.

Zahro, F. (2014). Isolasi dan identifikasi bakteri asam laktat asal fermentasi markisa ungu (*Passiflora edulis* var. Sims) sebagai penghasil eksopolisakarida. Doctoral Dissertation in Faculty of Science and Technology, Universitas Islam Negeri Maulana Malik Ibrahim.

UNTUK INDONESIA ADIL & BERADAB

ISNAENI ISNAENI <isnaeni@ff.unair.ac.id>

Publication information Volume 26, Number. 1 (December 2020)

Journal of Biological Researches <berkalahayati@yahoo.com> 27 November 2020 22.20
Balas Ke: berkalahayati@yahoo.com
Kepada: isnaeni@ff.unair.ac.id
Cc: iifhanifanurrosyidah@gmail.com

Dear Author

We glad to inform you that your paper entitled "Inhibitory activity of fermentation filtrate of red passion fruit pulp (Passiflora edulis sims.) against Escherichia coli extended-spectrum beta-lactamase (esbl) and methicillin resistant staphylococcus aureus (MRSA)." has been accepted in Jurnal Berkala Penelitian Hayati Volume 26, Number. 1 (December 2020), Please carefully check,

1. Please carefully check the author list, corresponding author, contact information, and the whole manuscript

Please kindly check once again an attachment file and mark with the blue ink in every single change, We are not responsible for information error after published.

and the payment for further processing of the paper is requested.

Details for Payment:
Journal Administration = IDR 1,400,000
Recipient Name: Dr. Fatchiyah, M.Kes
Account number: 144-00-1450272-5 , Mandiri KK Malang Universitas Brawijaya

After checking and completing the payment, please kindly send the proof of payment to us together with your final revised manuscript.

Thank you.

Best Wishes,
Editorial team
Berkala Penelitian Hayati

4. Nurrosyidah et al (22-25).doc
2650K

UNTUK INDONESIA ADIL & BERADAB

ISNAENI ISNAENI <isnaeni@ff.unair.ac.id>

Publication information Volume 26, Number. 1 (December 2020)

ISNAENI ISNAENI <isnaeni@ff.unair.ac.id> 28 November 2020 14.03
Kepada: Journal of Biological Researches <berkalahayati@yahoo.com>

Dear Editorial Team of Journal of Biological Researches,

Thank you for your information. Here we send you the files of revised manuscript and proof of payment.

warm regards,
Dr. Isnaeni, MS., Apt.
[Kutipan teks disembunyikan]

3 lampiran

Bukti terima.jpeg
21K

Bukti transfer.jpeg
43K

4. Nurrosyidah et al (22-25).doc
2619K

UNTUK INDONESIA ADIL & BERADAB

ISNAENI ISNAENI <isnaeni@ff.unair.ac.id>

Publication information Volume 26, Number. 1 (December 2020)

Journal of Biological Researches <berkalahayati@yahoo.com> 2 Desember 2020 01.33
Balas Ke: Journal of Biological Researches <berkalahayati@yahoo.com>
Kepada: ISNAENI ISNAENI <isnaeni@ff.unair.ac.id>

Dear Author,
Thank you for your contribution to Berkala Penelitian Hayati.
Hereby we attach you a paid invoice for your payment.
We will waiting for your next publication.

Sincerely,
Managing Editorial Team
Berkala Penelitian Hayati

[Kutipan teks disembunyikan]

4. 04261-PUB_Paid Invoice_Nurrosyidah_26(1).pdf
348K

UNTUK INDONESIA ADIL & BERADAB

ISNAENI ISNAENI <isnaeni@ff.unair.ac.id>

Your Article is Online

Journal of Biological Researches <berkalahayati@yahoo.com> 1 Desember 2020 08.09
Balas Ke: berkalahayati@yahoo.com
Kepada: isnaeni@ff.unair.ac.id
Cc: iifhanifanurrosyidah@gmail.com

Dear Author,

Congratulation for your publication,

Your article is available online

http://www.berkalahayati.org/index.php/jurnal/article/view/533

Thank you for your contribution to Berkala Penelitian Hayati.
We hope you consider us again for your next publication.

Sincerely,

Editorial Team
Berkala Penelitian Hayati

UNTUK INDONESIA ADIL & BERADAB

ISNAENI ISNAENI <isnaeni@ff.unair.ac.id>

Re: Iif Hanifa Journal

Journal of Biological Researches <berkalahayati@yahoo.com> 11 Oktober 2020 13.28
Balas Ke: berkalahayati@yahoo.com
Kepada: iif hanifa nurrosyidah <iifhanifanurrosyidah@gmail.com>
Cc: isnaeni@ff.unair.ac.id

Dear Author,

Thanks for resubmitting your revision, however, the author still not completely follow the editor suggestion,

1. Please strictly revise your references style following our guideline, We have attached in the previous email for example, please carefully check and revise.

2. the current figure is not publishable figure, please send us the original figure for editing purposes.

We hope the author understand, If you find any difficult or unclear things, let us know.

Best Regard
Managing editor

> Pada Minggu, 11 Oktober 2020 12.46.35 WIB, iif hanifa nurrosyidah <iifhanifanurrosyidah@gmail.com> menulis:
>
> Dear,
>
> I would like to send you the manuscript I have revised.
>
> --
> **Sincerely,**
> **Iif Hanifa Nurrosyidah, S.Farm., M.Farm., Apt**
> **STIKES RS.ANWAR MEDIKA**
> **Sidoarjo- Jawa Timur**

ISNAENI ISNAENI <isnaeni@ff.unair.ac.id>

Minor Revision Before Acceptance

2 pesan

Journal of Biological Researches <berkalahayati@yahoo.com> 10 Oktober 2020 20.54
Balas Ke: berkalahayati@yahoo.com
Kepada: isnaeni@ff.unair.ac.id
Cc: iifhanifanurrosyidah@gmail.com

Dear Author,

Please kindly find an attachment of your manuscript. And strictly follow our editor suggestion,

1. The results and discussion should be separated in the different section.
2. Please revise strictly the citation style and reference style according to our style, see the website guideline for it (https://libguides.library.usyd.edu.au/c.php?g=508212&p=3476096)
3. Please check and fill the corresponding information.
4. Please send us all the original figure used in your manuscript

After completing your revision, resubmit your final manuscript through this email.

Thanks

Best Regard
Managing editor

3. Iif et al.doc
228K

ISNAENI ISNAENI <isnaeni@ff.unair.ac.id> 11 Oktober 2020 07.40
Kepada: Journal of Biological Researches <berkalahayati@yahoo.com>
Cc: iif hanifa nurrosyidah <iifhanifanurrosyidah@gmail.com>

Thank you, I will do that.
[Kutipan teks disembunyikan]

UNTUK INDONESIA ADIL & BERADAB

ISNAENI ISNAENI <isnaeni@ff.unair.ac.id>

Revision Reminder

2 pesan

Journal of Biological Researches <berkalahayati@yahoo.com> 4 Oktober 2020 20.19
Balas Ke: berkalahayati@yahoo.com
Kepada: iifhanifanurrosyidah@gmail.com
Cc: isnaeni@ff.unair.ac.id

Dear Author,

We would like to remind you to collect your revision progress due to October 5th, 2020.
If you find any troubles for completing revision, feel free to contact us.

Thank you

Best Regard
Managing editor

ISNAENI ISNAENI <isnaeni@ff.unair.ac.id> 5 Oktober 2020 16.16
Kepada: Journal of Biological Researches <berkalahayati@yahoo.com>

Dear Editor,
Attachment below is the revised manuscript.
There are major revisions to be a better manuscript.
We are waiting for good news.
Thank you.

Sincerely,
Isnaeni
[Kutipan teks disembunyikan]

Artikel iif-JBR.doc
141K