Lampiran 6

LEMBAR
HASIL PENILAIAN SEJAWAT SEBIDANG ATAU *PEER REVIEW*
KARYA ILMIAH : JURNAL INTERNASIONAL

Judul Jurnal Ilmiah (Artikel)	: *Isolation, Identification Similarity and Qualitative Expression of Metallothionein Gene in IR-Bagendit Rice (Oryza sativa)*
Nama Penulis	: 1.Budi Santosa, 2.**Sri Darmawati**, 3.Aprilia Indah Kartika, 4.Fitri Nuroini, 5.Aditya Rahman Ernanto, 6.Annisa Ayuningtyas, 7.Mohd Nazil Salleh, 8. Siti Thomas Zulaikhah
Jumlah Penulis	: 8 (delapan) orang
Status Pengusul	: ~~penulis pertama~~ / **penulis ke-2** /~~penulis korespondensi~~ ** Identitas
Jurnal Ilmiah	: a. Nama Jurnal : Pharmacognosy Journal
	b. Nomor ISSN : 0975-3575
	c. Volume, nomor, bulan, tahun : Vol. 12 No.4, Juli-Agustus 2020, hal:709-715,
	d. Penerbit : Pharmacognosy Network Worldwide
	e. DOI artikel (Jikaada) : http://dx.doi.org/10.5530/pj.2020.12.103
	f. Terindeks di : Scopus https://www.scopus.com/sourceid/19700175096

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Total = (100%)	**40**	**30**	**20**	39,5
Nilai Pengusul	0.4 x 39.5/7 = 2,25			2,25
Nilai rata-rata Reviewer 1 dan 2	**(2,25+2,27)/2=2,26**			**2,26**

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2. **Ruang lingkup dan kedalaman pembahasan:** Substansi artikel sesuai dengan ruang lingkup jurnal (Pharmacognosy Journal). Kedalaman pembahasan melibatkan13.dari 17 bh rujukan) (skor= 12,00).
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4. **Kelengkapan unsur dan kualitas terbitan:** Jurnal ini tergolong J.Internasional Bereputasi (Editorial board lebih dari 5 negara, Jurnal terbit secara teratur 6 kali dalam satu tahun. Kontributor lebih dari 2 negara, pISSN 0975-3575, terindeks di Scopus/SJR=0,268 (2020)/Q3, H Index 21; ; proses editorial sudah baik) (skor= 12,00).

Semarang, 10 November 2021
Reviewer 1

Prof. Dr. Suwarno Hadisusanto, SU
NIP/NIDN : 19541116 19830331002/0016115402
Unit kerja : Universitas Gadjah Mada Yogyakarta
Jab. Fungsional : Guru Besar
Bidang Ilmu : Biologi

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Lampiran 6

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Status Pengusul	: ~~penulis pertama~~ / **penulis ke-2** /~~penulis korespondensi~~ ** Identitas
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a. Kelengkapan unsur isi Artikel (10%)	4,0			4,0
b. Ruang lingkup dan kedalaman pembahasan (30%)	12,0			12,0
c. Kecukupan dan kemutahiran data/informasi dan metodologi (30%)	12,0			12,0
d. Kelengkapan unsur dan kualitas terbitan/jurnal (30%)	12,0			11,80
Total = (100%)	**40**			39,80
Nilai Pengusul	(40 % x 39,80)/7 = 2,27			**2,27**
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Catatan penilai artikel oleh Reviewer 2:

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Semarang,
Reviewer 2

Prof. Dr. Hermin Pancasakti Kusumaningrum, S.Si, M.Si
NIP/NIDN : 197002081994032001/0008027003
Unit kerja : Fak. Sains dan Matematika UNDIP
Jab. Fungsional : Guru Besar
Bidang Ilmu : Biologi

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  3. Terdiri dari: Penulis Pertama, Korespondensi = 50%, 50%
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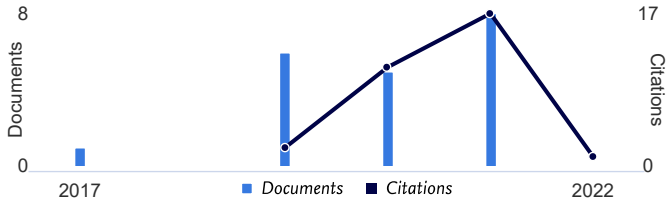

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10.5530/pj.2020.12.103

Isolation, identification similarity and qualitative expression of metallothionein gene in ir-bagendit rice (Oryza sativa)

Santosa B.[a], Darmawati S.[a], Kartika A.I.[a], Nuroini F.[a], Ernanto A.R.[a], Ayuningtyas A.[b], Salleh M.N.[c], Zulaikhah S.T.[d]

Save all to author list

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Abstract

Metallothionein (MTs) is an enzyme that plays a role in the binding of metals in plants. Various types of rice have been known to contain MTs and IR-Bagendit rice leaves have the highest MTs protein content compared to other rice varieties. However, MTs coding gene in IR-Bagendit rice variety is still unknown. OsRAC1 gene is reported as the down-regulator of MTs and there is an analogous gene for

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Cytotoxicity of Selenium-Enriched Chinese Kale (Brassica oleracea var. alboglabra L.) Seedlings Against Caco-2, MCF-7 and HepG2 Cancer Cells

Pharmacognosy Journal, 2020, 12, 4, 674-681.
DOI: 10.5530/pj.2020.12.99 (http://dx.doi.org/10.5530/pj.2020.12.99)
Published: June 2020
Type: Original Article

Cytotoxicity of Selenium-Enriched Chinese Kale (Brassica oleracea var. alboglabra L.) Seedlings Against Caco-2, MCF-7 and HepG2 Cancer Cells

Vijitra Luang-In (https://mail.phcogj.com/articles?f%5Bauthor%5D=1324), Worachot Saengha (https://mail.phcogj.com/articles?f%5Bauthor%5D=3269), Benjaporn Buranrat (https://mail.phcogj.com/articles?f%5Bauthor%5D=1968), Anut Chantiratikul (https://mail.phcogj.com/articles?f%5Bauthor%5D=3270), and Nyuk Ling Ma (https://mail.phcogj.com/articles?f%5Bauthor%5D=3271)

Vijitra Luang-In[1,*], Worachot Saengha[1], Benjaporn Buranrat[2], Anut Chantiratikul[3], Nyuk Ling Ma[4]

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Abstract:

Background: The Selenium-enriched Chinese kale (*Brassica oleracea* var. *alboglabra* L.) seedlings (Se-KS) have been known for its antioxidant activities, however its cytotoxic effects on various cancer cells are yet to be reported. **Objective:** The objective of this work was to study the cytotoxic effects of Se-KS on Caco-2, MCF-7 and HepG2 cancer cells. **Materials and Methods:** Freeze-dried seedlings were ground and incubated in 0.1 M citrate phosphate buffer pH 7.0 for 1 h at 37°C and extracted with dichloromethane to obtain total isothiocyanate (ITC) content which was quantified using the 1,2-benzenedithiole (BDT)-based cyclocondensation assay. The extracts from fresh seedlings were used to determine the cytotoxic effect on Caco- 2, MCF-7 and HepG2 cancer cells. **Results:** Se-KS was found to contain total ITC content at 1.02 mmol/100 g dry weight (DW) which was significantly lower than that of 7-day old broccoli microgreens (1.60 mmol/100 g DW) as reference Cruciferous vegetables. In addition, Se-KS extract exhibited cytotoxic effects in a dose- and time-dependent manners. The lowest IC_{50} value of 82.83 µg/mL at 72 h was derived from HepG2 cells and the highest IC_{50} value of 164.00 µg/mL at 72 h was from MCF-7 cells suggesting that the Se-KS extract was most effective against HepG2 cells. Cancer cells showed signs of apoptotic bodies over 72 h and DNA fragmentations at 24 h indicating that the Se-KS extract was able to induce apoptosis in cancer cells in addition to cytotoxic effect. **Conclusion:** Thus, Se-KS could be a novel source of organo selenium with chemopreventive benefits for functional food development.

Keywords: Caco-2 (/articles?f%5Bkeyword%5D=1081), HepG2 (/articles?f%5Bkeyword%5D=3367), Isothiocyanate (/articles?f%5Bkeyword%5D=3368), Kale (/articles?f%5Bkeyword%5D=3366), MCF-7 (/articles?f%5Bkeyword%5D=805), Seleniu (/articles?f%5Bkeyword%5D=3369)

Assessment of the Impact of Wild Stinkhorn Mushroom Extracts on Different Cancer Cell Proliferation and Study of Primary Metabolites

Pharmacognosy Journal, 2020, 12, 4, 699-708.
DOI: 10.5530/pj.2020.12.102 (http://dx.doi.org/10.5530/pj.2020.12.102)
Published: June 2020
Type: Original Article

Assessment of the Impact of Wild Stinkhorn Mushroom Extracts on Different Cancer Cell Proliferation and Study of Primary Metabolites

Ribhu Ray (https://mail.phcogj.com/articles?f%5Bauthor%5D=2948), Amrita Pal (https://mail.phcogj.com/articles?f%5Bauthor%5D=2946), and Santanu Paul (https://mail.phcogj.com/articles?f%5Bauthor%5D=1118)

Ribhu Ray, Amrita Pal, Santanu Paul*

Laboratory of Cell and Molecular Biology, Department of Botany, University of Calcutta, Kolkata 700019, INDIA.

Abstract:

Objective: Present study aims to evaluate the efficacy of methanolic and ethyl acetate extracts of wild mushroom *Phallus* sp. on cell proliferation of both normal and cancer cells. This study also looked at anti-oxidant potentiality of methanolic extract and also unravels the phytochemical profiling of both extracts. **Methods:** Anti-proliferative activity was assessed by MTT assay on different human cancer cell lines such as MCF-7, MOLT-4, REH and Peripheral Blood Mononuclear Cells or PBMC isolated from a healthy donor. Gas Chromatography-Mass Spectrometry (GC-MS) analysis was used for comparative assessment of phytochemical constituents of both extracts. The anti-oxidant profile of methanolic extract was also evaluated by DPPH and ABTS**•+** assays. **Results:** Results indicated that the both methanolic and ethyl acetate extracts of *Phallus* sp. showed appreciable anti-proliferative activity against breast cancer cell line MCF-7 with IC_{50} of 8.544±2.812 µg/mL and 35.279±2.863 µg/mL respectively. Both of the extracts also showed its moderate impact on human B cell precursor leukemia cell line (REH) with IC_{50} of 25.987±2.696 µg/mL for methanol and 51.484±1.480 µg/mL for ethyl acetate extract respectively. No effect was observed in MOLT-4 cell line. Methanolic extract was selected as better anti cancer extract over ethyl acetate extract. No significant anti-proliferative activity was observed in normal PBMC by both extracts. GC-MS analysis indicated that 43 and 114 compounds were identified from methanolic and ethyl acetate extracts respectively. Among them nine compounds shared its existence in both of the extracts. Different derivatives of ergosterol and several fatty acid esters ware identified as major components from both of the extracts. Methanolic extracts of the *Phallus* sp. showed its effectiveness on both of DPPH and ABTS**•+** free radical, and result indicated that it contain more flavonoid content than phenol. **Conclusion:** The methanolic extract of *Phallus* sp. show very specific anti-proliferative effect on MCF-7 with moderate anti-oxidant activity and holds a great promise for isolation of bio molecules for treating Breast Cancer. Several derivatives of ergosterol identified as probable anti-cancer compound.

Keywords: ABTS•+ (/articles?f%5Bkeyword%5D=127), GC-MS (/articles?f%5Bkeyword%5D=159), MCF-7 (/articles?f%5Bkeyword%5D=805), MTT Assay (/articles?f%5Bkeyword%5D=252), Phallus (/articles?f%5Bkeyword%5D=3375)

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