

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/368809927>

DETERMINATION OF ANTIMICROBIAL ACTIVITY OF *Alpinia officinarum* Hance

Conference Paper · December 2022

CITATIONS

0

READS

20

8 authors, including:



Rüveyde Pala

Dokuz Eylul University

6 PUBLICATIONS 0 CITATIONS

SEE PROFILE



Merve Ülkü Sayim

Dokuz Eylul University

6 PUBLICATIONS 0 CITATIONS

SEE PROFILE



Gizem Gül

Dokuz Eylul University

9 PUBLICATIONS 0 CITATIONS

SEE PROFILE



Cenker Yaman

Dokuz Eylul University

9 PUBLICATIONS 0 CITATIONS

SEE PROFILE



International Marmara Sciences Congress (Imascon Autumn 2022)

09 – 10 December 2022 KOCAELI

PROCEEDINGS E-BOOK

Organizer



Sponsors



This congress proceedings book is published as an electronic format as e-book.

All rights reserved.

Editorial Board

Prof.Dr. Arif ÖZKAN
Assoc.Prof.Dr. Serdar BİROĞUL
Assoc.Prof.Dr. Ömer GÜNGÖR
Lect. İsmail KILICASLAN
Lect. Kazım KAHRAMAN
Dr. Çağatay TAŞDEMİRCİ

ISBN: 978-625-00-0263-6

Address Kocaeli Üniversitesi Rektörlüğü, Umuttepe Yerleşkesi Kocaeli,
TÜRKİYE
Phone +90 262 303 1000
E-mail info@imascon.com
Web www.imascon.com

All legal and ethical responsibility of the studies belongs to the authors. All rights reserved. The copyright of this proceedings book belongs to Kocaeli University. It may not be copied or reproduced without permission.

DETERMINATION OF IN VITRO ANTIMICROBIAL ACTIVITY OF *Alpinia Officinarum* Hance

Rüveyde PALA

Dokuz Eylül Üniversitesi, Fen Bilimleri Enstitüsü, Biyoloji Bölümü
ruveydepala.deu@gmail.com

Merve Ülkü SAYIM

Dokuz Eylül Üniversitesi, Fen Bilimleri Enstitüsü, Biyoloji Bölümü
merveulkusayim@gmail.com

Gizem GÜL

Dokuz Eylül Üniversitesi, Fen Fakültesi, Biyoloji Bölümü
gizeemmugull@gmail.com

Cenker YAMAN

Dokuz Eylül Üniversitesi, Fen Fakültesi, Biyoloji Bölümü
cenkeryaman@gmail.com

Dilay TURU

Dokuz Eylül Üniversitesi, Fen Bilimleri Enstitüsü, Biyoloji Bölümü
dilayturu@gmail.com

Atakan BENEK

Kastamonu Üniversitesi, Fen Bilimleri Enstitüsü, Biyoloji Bölümü
atakan.benek@hotmail.com

Mustafa Eray BOZYEL

Çanakkale Onsekiz Mart Üniversitesi, Fen Fakültesi, Biyoloji Bölümü
m.eraybozyel@gmail.com

Kerem CANLI

Dokuz Eylül Üniversitesi, Fen Fakültesi, Biyoloji Bölümü
biyoloji@gmail.com

Abstract

Mankind has met many of its needs through plants since its existence. In addition to using it for nutrition purposes, human beings also resort to plants to solve health problems. The *Alpinia officinarum*, commonly known as the “Havlıcan” is a 1-3 m long, multi-year, naturally occurring plant in Southeast Asia. *A. officinarum* has been used for spice and for treating diseases such as stomach problems, toothaches, dysentery, high blood pressure, rheumatism, and diabetes for 1000 years. It also has commercial significance due to its use in perfume production, weakening drugs, and lotions. This study examined the antimicrobial activity of the *A. officinarum* plant. To this end, the plant’s ethanol extract was first prepared. The disc diffusion test was performed with 50 µl, 100 µl, and 150 µl (3,68 mg, 7,37 mg, 11,05 mg) extract-loaded discs, and antimicrobial effect was examined on 48 strains. Results were seen in 22 strains. The best results were seen in bacteria *Enterococcus faecium* (8-16-20 mm), *Staphylococcus aureus* MRSA (10-10-10 mm), *Staphylococcus aureus* MRSA+MDR (9-10-11 mm), *Staphylococcus aureus* ATCC 25923 (9-9-10 mm) and *Enterococcus durans* (9-9-9 mm). *Enterococcus faecium* can cause urinary tract infections, wound infections, and bacteremia. *Staphylococcus aureus* can cause gastrointestinal tract infections, septicemia, and meningitis. In addition, nowadays many bacteria have developed antibiotic resistance and considering that it can cause nosocomial infections, the disc diffusion test results of the *A. officinarum* plant are promising in terms of developing a new antimicrobial agent.

Keywords: Antimicrobial Activity, Disc Diffusion, *Alpinia officinarum* Hance.