ResearchGate

See discussions, stats, and author profiles for this publication at: https://www.researchgate.net/publication/316919368

Antimicrobial activity screening of Porella platyphylla and Porella arboris-vitae

Conference Paper · April 2017

CITATIONS
0

READS
96

6 authors, including:

Kerem Canlı
Dokuz Eylul University
110 PUBLICATIONS **692** CITATIONS
SEE PROFILE

Atakan Benek
Kastamonu Üniversitesi
43 PUBLICATIONS **136** CITATIONS
SEE PROFILE

Umay Merve Şenturan
Kastamonu Üniversitesi
23 PUBLICATIONS **53** CITATIONS
SEE PROFILE

Ali Yetgin
Cukurova University
66 PUBLICATIONS **294** CITATIONS
SEE PROFILE

All content following this page was uploaded by Kerem Canlı on 23 July 2017.

The user has requested enhancement of the downloaded file.

P-0571

Antimicrobial activity screening of Porella platyphylla and Porella arboris-vitae

Kerem Canli[1], Atakan Benek[2], Ebru Efe[2], Merve Şenturan[2], Ali Yetgin[3], Ergin Murat Altuner[4]

[1]Department of Biology, Faculty of Science, Dokuz Eylül University, Izmir, Turkey
[2]Department of Biology Education, Buca Faculty of Education, Dokuz Eylül University, Izmir, Turkey
[3]Department of Biotechnology, Institute of Engineering and Science, Izmir Institute of Technology, Izmir, Turkey
[4]Department of Biology, Faculty of Science and Arts, Kastamonu University, Kastamonu, Turkey

Marchantiophyta are a division of non-vascular land plants commonly referred to as hepatics or liverworts. There are very few studies on the antimicrobial effect of liverworts. The aim of this study was to investigate the antimicrobial activity of Porella platyphylla and Porella arboris-vitae against 17 bacterial and 1 fungal species. These microbial strains are Bacillus subtilis ATCC 6633, Candida albicans ATCC 10231, Enterobacter aerogenes ATCC13048, Enterococcus durans, Enterococcus faecalis ATCC 29212, Enterococcus faecium, Escherichia coli ATCC 25922, Escherichia coli CFAI, Klebsiella pneumoniae, Listeria monocytogenes ATCC 7644, Salmonella enteritidis ATCC 13075, Salmonella infantis, Salmonella kentucky, Salmonella typhimurium SL 1344, Staphylococcus aureus ATCC 25923, Staphylococcus carnosus MC1.B, Staphylococcus epidermidis DSMZ 20044 and Streptococcus agalactiae DSMZ 6784. Twelve of them are standard species and they are important for exact determination of antimicrobial screening. 0.45, 0.90 and 1.80 mg samples of P. platyphylla and 0.15, 0.30 and 0.60 mg samples of P. arboris-vitae were prepared by using ethanol extraction method. Our present study has shown that the P. platyphylla and P. arboris-vitae have antimicrobial activity against two and six of the studied species respectively.

Keywords: Porella platyphylla, Porella arboris-vitae, bryophyte, antimicrobial activity, disk diffusion method, ethanol extract