



COVID-19 Preprints

Browse ▾

Services ▾

Sign In

+ Sub

This is a preprint. Preprints are preliminary reports that have not undergone peer review. They should not be considered conclusive, used to inform clinical practice, or referenced by the media as validated information.



BADGES



HISTORY

CURRENT STATUS: POSTED

▼ Version 1

Posted 01 Jul, 2020

🗨 Community comments: 1

METRICS

Comments: 3

PDF Downloads: 44

HTML Views: 301

RESEARCH ARTICLE *Virology*

Characterization of Rhamnolipids for the Inactivation of Enveloped Viruses

> Ling Jin, Wendy Black, Teresa Sawyer

DOI: 10.21203/rs.3.rs-38084/v1

Download PDF

LICENSE: This work is licensed under a Creative Commons Attribution 4.0 International License. Read Full License



SUBJECT AREAS

Virology

MORE FROM RESEARCH SQUARE

Forskolin enhances the antitumor effect of oncolytic measles virus by promoting Rab27a dependent vesicular transport system

Proposal and psychometric validation of the Severe Acute Respiratory Syndrome - Coronavirus-2 Fear Scale (SCoV-2-FS)

The Influence of Adding Traditional Chinese Medicine on COVID-19 Patients' Liver Function: A Systematic Review and Meta-analysis

▼ **Abstract**

In the face of new emerging respiratory viruses, such as SARS-CoV2, vaccines, and drug therapies are not immediately available to curb the spread of the infection. Non-pharmaceutical interventions, such as mask-

wearing and social distance, can slow the transmission. However, both mask and social distance are not 100% effective at preventing the spread of respiratory viruses, such as SARS-CoV2 and influenza viruses. There is an urgent need to develop an intervention that could reduce the spread of respiratory viruses. Rhamnolipids are environmentally friendly and biologically safe surfactants that can kill enveloped viruses. Two rhamnolipid products, 222A and 222B, were investigated in this study to determine their ability to inactivate two enveloped viruses, bovine coronavirus and herpes simplex virus 1. We found that 222B at 0.005%, which has no toxicity to cells, can inactivate 10^5 PFU/ml enveloped viruses in 3-5 min. Moreover, 50-100 μ l of 222B at 0.005% on 1 cm² mask fabrics can inactivate $\sim 10^3$ PFU /10 μ l in 3-5 min. These results suggest that 222B can be coated on masks to prevent or reduce the spread of enveloped viruses.

Full-length genome characterization and phylogenetic analysis of SARS-CoV-2 virus strains from Indonesia

N-glycoproteomic Profiling Revealing New Coronavirus Therapeutic Targets That Maybe Involved in Cepharanthine's Intervention

A comparison of clinical and laboratory manifestations of thrombotic events in patients with COVID-19 and other respiratory viral infections.

KEYWORDS *rhamnolipids,*
222A, 222B,
HSV-1, HSV-1-
GFP,
Coronavirus,
Bovine
Coronavirus

> Figures

> Introduction

> Material And Methods

> Results

> Discussion

> Declarations

> References

∨ Comments (3)

Ling Jin commented on 08 July, 2020

Dear readers,

I would like to point out rhamnolipids investigated in this research could be used to make anti-viral mask specifically against current pandemic viruses.

The product is available from AGAE and can be applied to mask by spraying the product directly to make anti-viral mask. It will protect you from SARS-CoV2 and prevent the spread of COVID19.

Ling Jin

REPLY

Report

2 comments flagged for moderation

If you posted a comment and think it was mistakenly removed, please contact customer support at info@researchsquare.com.

Comments can take the form of short reviews, notes or questions to the author. Comments will be posted immediately. If reported by the community, we will temporarily hide the comment to determine if the comment is spam or harassment. If it is not, it will be unhidden, and it cannot be reported again. If you think a comment has been hidden or unhidden mistakenly, please contact us at info@researchsquare.com.

Your name *

Email *

ORCID iD (optional)

Comment *

POST COMMENT

Learn more about our company.

ABOUT US



At Research Square, we're committed to making research communication faster, fairer, and more useful. We do this by developing innovative software and services for the global research community. Our growing team is made up of researchers and industry professionals working together to solve the most critical problems facing scientific publishing.

COMPANY

- [About Us](#)
- [Careers](#)
- [Partner With Us](#)
- [Blog](#)
- [Contact Us](#)

RESOURCES

- [Author Services](#)
- [FAQs](#)
- [Editorial Policies](#)
- [Accessibility](#)
- [API Access](#)
- [RSS feed](#)

✉ GET UPDATES

First Name

Last Name

Email



Also
discoverable  **Researcher**
on

© Research Square 2020 | ISSN 2693-5015 (online)

[Privacy Policy](#)

[Terms of Service](#)

[Do Not Sell My Personal Information](#)