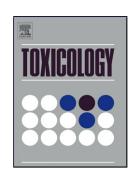
Accepted Manuscript

Title: Mitochondrial reactive oxygen species regulate fungal protease-induced inflammatory responses

Author: id="aut0005" author-id="S0300483X17300082-733091af34d7cae7b32a186393d15baa"> Yun Hee Kim id="aut0010" author-id="S0300483X17300082-a70f3ac2e89cfe92178dd0cfca7930a7"> Seung-Hyo Lee



PII: S0300-483X(17)30008-2

DOI: http://dx.doi.org/doi:10.1016/j.tox.2017.01.008

Reference: TOX 51811

To appear in: *Toxicology*

Received date: 14-11-2016 Revised date: 6-1-2017 Accepted date: 9-1-2017

Please cite this article as: Kim, Y.H., Lee, S.-H., Mitochondrial reactive oxygen species regulate fungal protease-induced inflammatory responses, *Toxicology* (2017), http://dx.doi.org/10.1016/j.tox.2017.01.008

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Mitochondrial reactive oxygen species regulate fungal protease-induced inflammatory

responses

Yun Hee Kim^{a,b}, Seung-Hyo Lee^asl131345@kaist.ac.kr

^aGraduate School of Medical Science and Engineering, Biomedical Research Center, KAIST

Institute for the BioCentury, Korea Advanced Institute of Science and Technology (KAIST),

Daejeon 34141, Korea

^bKorean Medicine Convergence Research Division, Korea Institute of Oriental Medicine

(KIOM), Daejeon 34054, Korea

Cellular Immunology Laboratory, Graduate School of Medical Science and Engineering,

KAIST, 291 Daehak-ro, Yuseong-gu, Daejeon 34141, Korea.

Phone: +82 42 350 4235, fax: +82 42 350 4240.

Abstract

Epidemiological studies have shown that fungal infections are a main cause of respiratory

tract diseases, such as asthma, bronchopneumonia, intoxication, and invasive fungal disease.

Fungi such as Aspergillus and Candida species have become increasingly important

pathogens as the global climate changes. Accordingly, in this study, we evaluated the

toxicological potential of Aspergillus protease in the lower respiratory tract. Exposure of

Aspergillus protease to A549 cells induced upregulation of tumor necrosis factor (TNF)-α,

monocyte chemoattractant protein (MCP)-1, and intercellular adhesion molecule (ICAM)-1

mRNAs and increased production of interleukin (IL)-8 and MCP-1 protein through enhanced

Page 1 of 29

Download English Version:

https://daneshyari.com/en/article/5561868

Download Persian Version:

https://daneshyari.com/article/5561868

<u>Daneshyari.com</u>