

Accepted Manuscript

Munronin O, a potential activator for plant resistance

Ying Yan, Lei Tang, Jiaqi Hu, Jianta Wang, Tiwalade Adegoke Adelakun, Dongqiong Yang, Yingtong Di, Yu Zhang, Xiaojiang Hao



PII: S0048-3575(17)30591-6
DOI: doi:[10.1016/j.pestbp.2018.02.001](https://doi.org/10.1016/j.pestbp.2018.02.001)
Reference: YPEST 4170
To appear in: *Pesticide Biochemistry and Physiology*
Received date: 30 November 2017
Revised date: 1 February 2018
Accepted date: 4 February 2018

Please cite this article as: Ying Yan, Lei Tang, Jiaqi Hu, Jianta Wang, Tiwalade Adegoke Adelakun, Dongqiong Yang, Yingtong Di, Yu Zhang, Xiaojiang Hao , Munronin O, a potential activator for plant resistance. The address for the corresponding author was captured as affiliation for all authors. Please check if appropriate. Ypest(2018), doi:[10.1016/j.pestbp.2018.02.001](https://doi.org/10.1016/j.pestbp.2018.02.001)

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.

Munronin O, A Potential Activator for Plant Resistance

Ying Yan ^{a,b}, Lei Tang ^b, Jiaqi Hu ^b, Jianta Wang ^b, Tiwalade adegoke Adelokun ^c,
Dongqiong Yang ^c, Yingtong Di ^c, Yu Zhang ^c, and Xiaojiang Hao ^{a,*}

^a *State Key Laboratory of Functions and Applications of Medicinal Plants, Guizhou Medical University, Guiyang 550014, People's Republic of China*

^b *Guizhou Chemical Drug Research and Development Engineering Technical Center, Guiyang 550004, People's Republic of China*

^c *State Key Laboratory of Phytochemistry and Plant Resources in West China, Kunming Institute of Botany, Chinese Academy of Sciences, Kunming 650201, Yunnan, P. R. China*

ABSTRACT

A series of limonoids (**1–8**) were isolated from the whole plant of *Munronia henryi* and antiviral activities of the compounds were evaluated. The bioassay results demonstrated that Munronin O (**1**) showed remarkable protective activity and compounds **7** and **8** showed significant inactivating, protective, and curative activities against tobacco mosaic virus (TMV). With a 50% effective concentration (EC₅₀) value of 91.5 µg/mL, compound **1** exhibited the best protective activity compared with ningnanmycin (192.3 µg/mL). The potential for these compound of inducing systemic acquired resistance (SAR) was also evaluated, and compound **1** showed excellent induction activities. Furthermore, it was found that potentiation of defense-related enzyme activity and the contents of SA was increased. Compound **1** could also inhibit

Download English Version:

<https://daneshyari.com/en/article/8349108>

Download Persian Version:

<https://daneshyari.com/article/8349108>

[Daneshyari.com](https://daneshyari.com)