

Accepted Manuscript

Title: Anorectic response to the trichothecene T-2 toxin correspond to plasma elevations of the Satiety Hormone Glucose-Dependent Insulinotropic Polypeptide and Peptide YY₃₋₃₆

Authors: Kun Sheng, Hua Zhang, Jianming Yue, Wei Gu, Chao Gu, Haibin Zhang, Wenda Wu

PII: S0300-483X(18)30064-7
DOI: <https://doi.org/10.1016/j.tox.2018.04.007>
Reference: TOX 52026

To appear in: *Toxicology*

Received date: 27-1-2018
Revised date: 30-3-2018
Accepted date: 19-4-2018

Please cite this article as: Sheng, Kun, Zhang, Hua, Yue, Jianming, Gu, Wei, Gu, Chao, Zhang, Haibin, Wu, Wenda, Anorectic response to the trichothecene T-2 toxin correspond to plasma elevations of the Satiety Hormone Glucose-Dependent Insulinotropic Polypeptide and Peptide YY₃₋₃₆. *Toxicology* <https://doi.org/10.1016/j.tox.2018.04.007>

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.



Anorectic response to the trichothecene T-2 toxin correspond to plasma elevations of the Satiety Hormone Glucose-Dependent Insulinotropic Polypeptide and Peptide YY₃₋₃₆

Kun Sheng², Hua Zhang², Jianming Yue, Wei Gu, Chao Gu, Haibin Zhang, Wenda Wu¹

College of Veterinary Medicine, Joint International Research Laboratory of Animal Health and Food Safety, Nanjing Agricultural University, Nanjing 210095, P.R. China

¹To whom correspondence should be addressed at College of Veterinary Medicine, Nanjing Agricultural University, Nanjing 210095, P. R. China. Fax: 86 025-84395506. E-mail: wuwenda@njau.edu.cn.

²These authors made an equal contribution to this manuscript.

ABSTRACT

T-2 toxin, a potent type A trichothecene mycotoxin, is produced by various *Fusarium* species and can negatively impact animal and human health. Although anorexia induction is a common hallmark of T-2 toxin-induced toxicity, the underlying mechanisms for this adverse effect are not fully understood. The goal of this study was to determine the roles of two gut satiety hormones, glucose-dependent insulinotropic polypeptide (GIP) and Peptide YY₃₋₃₆ (PYY₃₋₃₆) in anorexia induction by T-2 toxin. Elevations of plasma GIP and PYY₃₋₃₆ markedly corresponded to anorexia induction following oral exposure to T-2 toxin using a nocturnal mouse anorexia model. Direct administration of exogenous GIP and PYY₃₋₃₆ similarly induced anorectic responses. Furthermore, the GIP receptor antagonist Pro3GIP dose-dependently attenuated both

Download English Version:

<https://daneshyari.com/en/article/8552760>

Download Persian Version:

<https://daneshyari.com/article/8552760>

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