Supplementary information

**Action mechanism of a novel agrichemical quinofumelin against** ***Fusarium graminearum***

Qian Xiu a,1, Xiaoru Yin a,1, Yuanyuan Chen b,1 Ziyang Zhang a, Yushuai Mao a, Tianshi Wang b, Jie Zhang a, Mingguo Zhou a,2, Yabing Duan a,2

a College of Plant Protection, State Key Laboratory of Agricultural and Forestry Biosecurity, Nanjing Agricultural University, Nanjing, 210095, China.

b College of Science, Nanjing Agricultural University, Nanjing, 210095, China.

1 Qian Xiu, Xiaoru Yin and Yuanyuan Chen contributed equally to this work.

2 Corresponding author: E-mail address: mgzhou@njau.edu.cn (Mingguo Zhou); dyb@njau.edu.cn (Yabing Duan)

**Table S1. GO analysis of down- and up-regulated DEGs.**

|  |  |  |
| --- | --- | --- |
| Description | Up | Down |
| Vitamin binding | 0 | 5 |
| Transition metal ion binding | 3 | 10 |
| Tetrapyrrole binding | 3 | 3 |
| RNA biosynthetic process | 2 | 4 |
| Phosphopantetheine binding | 0 | 4 |
| Peroxidase activity | 1 | 1 |
| Oxidoreductase activity | 1 | 11 |
| Nucleic acid-templated transcription | 4 | 8 |
| NADP binding | 0 | 3 |
| Monooxygenase activity | 1 | 6 |
| Monocarboxylic acid metabolic process | 1 | 2 |
| Modified amino acid binding | 0 | 4 |
| Homeostatic process | 1 | 1 |
| Heme binding | 3 | 3 |
| Chemical homeostasis | 1 | 1 |
| Cellular amino acid catabolic process | 0 | 2 |
| Amide binding | 0 | 4 |

**Table S2. KEGG analysis of down- and up-regulated DEGs.**

|  |  |  |
| --- | --- | --- |
| Description | Up | Down |
| Tryptophan metabolism | 1 | 2 |
| Thiamine metabolism | 2 | 0 |
| Pantothenate and CoA biosynthesis | 0 | 2 |
| Nitrogen metabolism | 0 | 2 |
| Biosynthesis of nucleotide sugars | 2 | 0 |
| Amino sugar and nucleotide sugar metabolism | 3 | 0 |